Traffic Analysis

Selma General Plan Update

Client:
Quad Knopf, Inc.
5110 West Cypress Avenue
Visalia, California 93277

Date:
May 7, 2009

Job Number:
07-043.01

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Mr. Josh McDonnell
Quad Knopf, Inc.
5110 West Cypress Avenue
Visalia, California 93278

May 7, 2009

Subject: Traffic Analysis
Selma General Plan Update
Selma, California

Dear Mr. McDonnell:

We are pleased to submit this Traffic Analysis report for the 2035 Selma General Plan Update. This report was prepared in accordance with the requirements of the City of Selma and identifies deficiencies in the existing and/or planned transportation system with recommendations for improvements and identification of constrained conditions.

Thank you for the opportunity to perform this traffic analysis and to provide you with this report. Please feel free to contact our office if you have any questions or comments regarding this report or if we can be of further assistance.

Sincerely,

PETERS ENGINEERING GROUP

John Rowland, PE, TE

ADMIN DRAFT

TABLE OF CONTENTS

Page

1.0 - INTRODUCTION 1
1.1 - Purpose 1
1.2 - Project Description 1
1.3 - List of Abbreviations 4
2.0 - TRAFFIC ANALYSES 5
2.1 - Study Area 5
2.2 - Study Scenarios 6
2.3 - Level of Service 6
2.4 - Intersection Analysis Methodology 8
2.5 - Road Segment Analysis Methodology 8
3.0 - EXISTING CONDITIONS 9
3.1 - Existing Roadway Network 9
3.2 - Existing Traffic Volumes 9
3.3 - Existing Intersection Level of Service 9
3.4 - Existing Conditions Road Segment Analyses 9
3.5 - Existing Deficiencies 11
4.0 - ANALYSIS OF PROPOSED 2035 GENERAL PLAN CONDITIONS 12
4.1 - Traffic Modeling 12
4.2 - Year 2035 Traffic Volumes 12
4.3 - Physical Constraints 12
4.4 - Intersection Analyses 13
4.5 - Road Segment Analyses 14
4.6 - Deficiencies in Proposed Circulation Plan 15
5.0 - DISCUSSION OF PROPOSED 2035 GENERAL PLAN CONDITIONS 16
5.1 - Intersections 16
5.2 - Road Segments 17
5.3 - Freeway Interchanges 17
5.4 - Need for Future Studies 18
6.0 - CONSTRAINED CONDITIONS 20
7.0 - CONCLUSIONS AND RECOMMENDATIONS 21

FIGURES

APPENDIX A - Florida Tables for Road Segment Analyses
APPENDIX B - Traffic Count Data Sheets
APPENDIX C - Intersection Analysis Sheets
APPENDIX D - Road Segment Analysis Table
APPENDIX E - Mitigated Intersection Analysis Sheets

ADMIN DRAFT

LIST OF FIGURES

Figure 1.1 Site Vicinity Map
Figure 1.2 Land Use and Circulation Map
Figure 1.3 Typical Arterial Cross Sections
Figure 1.4 Typical Collector Cross Sections
Figure 2.1 Study Intersection Location Map
Figure 3.1 Existing Lane Configurations and Intersection Control
Figure 3.2 Existing Peak Hour Traffic Volumes
Figure 4.1 Year 2035 Peak-Hour Traffic Volumes
Figure 5.1 Lane Configurations at Intersections - Major Arterials
Figure 5.2 Lane Configurations at Intersections - Arterials
Figure 5.3 Lane Configurations at Intersections - Collectors
Figure 5.4 Precise Plan Line - Mountain View Avenue East of SR 99
Figure 5.5 Conceptual Grade Separation, Intersection of Mountain View Avenue and Golden State Boulevard
Figure 5.6 Conceptual Interchange Layout, Dinuba Avenue and State Route 99
Figure 5.7 Conceptual Interchange Layout, Floral Avenue/Highland Avenue and State Route 99
Figure 5.8 Conceptual Interchange Layout, Mountain View Avenue and State Route 99

ADMIN DRAFT

LIST OF TABLES

Table 1.1 East-West Street Designations
Table 1.2 North-South Street Designations
Table 1.3 Diagonal Designations
Table 2.1 Level of Service Characteristics for Unsignalized Intersections
Table 2.2 Level of Service Characteristics for Signalized Intersections
Table 2.3 Level of Service Characteristics for Roadways
Table 2.4 Volume Thresholds for Roadway Levels of Service
Table 3.1 Intersection Analysis Summary – Existing Conditions
Table 4.1 Intersection Analysis Summary – Year 2035 Conditions

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1.0 - INTRODUCTION

This report presents the results of traffic analyses performed for the proposed Selma General Plan Update.

1.1 - Purpose

The traffic analyses were prepared to investigate anticipated traffic conditions with implementation of the proposed General Plan Update. This analysis focuses on the projected roadway and intersection operations in the year 2035 and investigates the adequacy of the proposed Circulation Plan, primarily as it pertains to vehicle traffic on the planned roadways and intersections.

1.2 - Project Description

The proposed Project is an update of the City of Selma General Plan. The City of Selma is located in south-central Fresno County, California in the central San Joaquin Valley. The location of Selma, California is presented in Figure 1.1, Site Vicinity Map, following the text of this report. The proposed 2035 General Plan Update will cover the planning period from 2009 to the year 2035, and will be utilized to guide the growth and development of the area within the adopted Planning Area boundary.

The proposed Land Use and Circulation Map included in the General Plan Update identifies the locations of the various land uses allowed by the General Plan Update and identifies the location of the physical circulation system planned throughout the city. The map is presented in Figure 1.2, Land Use and Circulation Map.

The goal of the proposed Circulation Element is to design and maintain a fully integrated local network that provides for safe and convenient circulation using a variety of transportation modes. The following objectives are presented in the proposed Circulation Element:

A. Maintain a roadway level of service (LOS) of D or better for intersections and road segments for Minor Collectors, Collectors, Arterials, Major Arterials, and Highways; where other jurisdictions control and manage roadways, their respective level of service standards shall prevail on applicable segments. In order to avoid using Local streets for excessive through traffic, an LOS of B is established for Local streets.

B. Develop a circulation network of local roads, collectors, and arterials that will meet projected traffic needs.

C. Enhance the availability and accessibility of alternative modes of transportation, such as walking, bicycling, carpools, buses, and rail.

D. Design streets that promote safe and pleasant conditions for residents, pedestrians, bicyclists, and motorists on neighborhood streets, while preserving access for emergency vehicles, buses, and other users. In order to promote safe streets, traffic calming measures shall be used.

E. Eliminate truck conflicts with commercial, industrial, and residential areas in the community.

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The Land Use and Circulation Map designates roadways as state highways (including freeways), expressways, major arterials, arterials, or collectors. Streets not designated on the map would be considered minor collectors or local roads. The various street cross sections are illustrated in Figure 1.3, Typical Arterial Cross Sections, and Figure 1.4, Typical Collector Cross Sections.

The proposed Circulation Map generally maintains the existing grid layout of roadways with alternating arterials and collectors at half-mile spacing. The map proposes a new interchange on State Route (SR) 99 at Dinuba Avenue. The map also proposes realigning SR 43 from the existing Highland Avenue alignment to the DeWolf Avenue alignment north of the Stillman Avenue alignment, with a diagonal segment connecting back to the Highland Avenue alignment between Nebraska and Saginaw Avenues. SR 43 would then connect with SR 99 via the new Dinuba Avenue interchange.

Tables 1.1 through 1.3 present the proposed street designations, the planned number of lanes, and the existing number of lanes. It should be noted that in some cases where the existing number of lanes equals the planned number of lanes, the road may not be currently developed to the full planned cross section.

Table 1.1
East-West Street Designations

Road	Segments	Designation	Number of Lanes	
			Planned	Existing
Manning Avenue	Armstrong to SR 99	Arterial	4	2
Manning Avenue	SR 99 to Bethel	Expressway	4	4
Springfield Avenue	Armstrong to Locan	Collector	2	2
Springfield Avenue	Leonard to Highland	Collector	2	Not existing
Springfield Avenue	Thompson to Bethel	Collector	2	Not existing
Dinuba Avenue	Armstrong to DeWolf	Arterial	4	2
Dinuba Avenue	Across SR 99	Arterial	4	Not existing
Dinuba Avenue	SR 99 to Bethel	Arterial	4	2
Huntsman Avenue	Armstrong to DeWolf	Collector	2	2
Nelson Boulevard	Highland to Thompson	Collector	2	2
Nelson Boulevard	McCall to Orange	Collector	2	2
Floral Avenue	Armstrong to Leonard	Arterial	4	2
Floral Avenue	Leonard to Wright	Arterial	4	4
Floral Avenue	Wright to Bethel	Arterial	4	2
Rose Avenue	Armstrong to Thompson	Collector	4	2
Rose Avenue	McCall to Country Rose	Collector	4	4
Rose Avenue	Country Rose to Bethel	Collector	4	2
Nebraska Avenue	Armstrong to 2nd	Arterial	4	2
Nebraska Avenue	Golden State to Bethel	Arterial	4	2
Saginaw Avenue	DeWolf to Highland	Collector	2	2
Saginaw Avenue	Highland to SR 99	Collector	2	Not existing
Saginaw Avenue	Golden State to Bethel	Collector	2	2
Mtn. View Avenue	DeWolf to Golden State	Arterial	4	2
Mtn. View Avenue	Golden State to Bethel	Arterial	4	4
Caruthers Avenue	DeWolf to Highland	Collector	2	2
Caruthers Avenue	Highland to Dockery	Collector	2	Not existing

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Table 1.2
North-South Street Designations

Road	Segments	Designation	Number of Lanes	
			Planned	Existing
Armstrong Avenue	Manning to Rose	Collector	2	Not existing
Temperance Avenue	Manning to Huntsman	Arterial	4	2
Temperance Avenue	Floral to Nebraska	Arterial	4	2
Locan Avenue	Springfield to Huntsman	Collector	2	Not existing
Locan Avenue	Floral to Nebraska	Collector	2	Not existing
DeWolf Avenue	Manning to Golden State	Arterial	4	2
DeWolf Avenue	Golden State to SR 99	Arterial	4	2
DeWolf Avenue	SR 99 to Caruthers	Arterial	4	2
Leonard Avenue	Manning to Dinuba	Collector	2	2
Leonard Avenue	Floral to Nebraska	Collector	2	Not existing
Highland Avenue	Golden State to Floral	Major Arterial	6	2
Highland Avenue	Floral to Nebraska/Saginaw	Major Arterial	6	4
Highland Avenue (SR 43)	Nebraska/Saginaw to Caruthers	State Highway	4	2
Thompson/Wright Avenue	Manning to Dinuba	Collector	2	Not existing
Thompson Avenue	Dinuba to Oak	Collector	2	4
Thompson Avenue	Oak to Floral	Collector	2	3
Thompson Avenue	Floral to Rose	Collector	2	2
Thompson Avenue	Nebraska to Caruthers	Collector	2	2
McCall Avenue	Parlier to Hicks	Arterial	4	2
McCall Avenue	Hicks to Floral	Arterial	4	4
McCall Avenue	Floral to Arrants	Arterial	4	2
McCall Avenue	Arrants to Rose	Arterial	4	4
McCall Avenue	Rose to High/Mill	Arterial	4	4
Dockery Avenue	Manning to Dinuba	Collector	2	Not existing
Dockery Avenue	Dinuba to Nelson	Collector	2	2
Dockery Avenue	SR 99 to Caruthers	Collector	2	2
Del Rey Avenue	Manning to Mill Ditch	Arterial	4	2
Amber Avenue	Dinuba to Floral	Arterial	4	Not existing
Amber Avenue	Floral to Nebraska	Arterial	4	2
Amber Avenue	Nebraska to Mtn. View	Arterial	4	Not existing
Bethel Avenue	South to Mtn. View	Arterial	4	2

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Table 1.3
Diagonal Street Designations

Road	Segments	Designation	Number of Lanes	
			Planned	Existing
SR 99	Manning to Caruthers	State Highway	6	6
Golden State Blvd.	Manning to Highland	Major Arterial	6	4
Whitson Street	Highland to Nebraska	Major Arterial	6	4
Golden State Blvd.	Nebraska to Mtn. View	Major Arterial	6	4
SR 43	DeWolf to Highland	State Highway	4	Not Existing
Saginaw-Dockery Diagonal	Saginaw to Dockery	Collector	2	Not Existing
Del Rey-Amber Diagonal	Del Rey to Amber	Arterial	4	Not Existing
2nd Street	Nebraska to E. Front	Arterial	4	4
2nd Street	E. Front to McCall	Arterial	4	2

1.3 - List of Abbreviations

The following is a list of abbreviations that may be used in the text of this report.

NB – Northbound
SB – Southbound
EB – Eastbound
WB – Westbound
LOS – Level of service
OWS – One-way stop control
AWS – All-way stop control
HCM – Highway Capacity Manual
PHF – Peak Hour Factor
sec – seconds
SR – State Route
COG – Council of Fresno County Governments
CMUTCD – California Manual on Uniform Traffic Control Devices

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2.0 - TRAFFIC ANALYSES

2.1 - Study Area

The study area includes the proposed planning area presented in the Land Use and Circulation Map. The study locations for purposes of this traffic analysis are the roadways listed in Tables 1.1 through 1.3.

The operation of intersections can create a significant amount of congestions on roadways that otherwise may have the required number of lanes for adequate road segment operations. Therefore, certain key intersections, including intersections at freeway interchanges, are also included in the analyses. This report includes analysis of the following intersections:

1. Manning and DeWolf Avenues
2. Manning and McCall Avenues
3. Manning and Del Rey Avenues
4. Dinuba and Temperance Avenues
5. Dinuba and DeWolf Avenues
6. Dinuba Avenue and Golden State Boulevard
7. Dinuba and Highland Avenues
8. Dinuba and McCall Avenues
9. Dinuba and Dockery Avenues
10. Dinuba and Orange Avenues (west)
11. Dinuba and Orange Avenues (east)
12. Dinuba and Del Rey Avenues
13. Floral and DeWolf Avenues
14. Floral Avenue and SR 99 Southbound Ramps
15. Floral and Highland Avenues
16. Floral Avenue and SR 99 Northbound Ramps
17. Floral Avenue and Whitson Street
18. Floral and McCall Avenues
19. Floral and Orange Avenues
20. Floral and Del Rey Avenues
21. SR 99 Southbound Ramps and Highland Avenue
22. Rose and Highland Avenues
23. Rose and Dockery Avenues
24. Nebraska and Highland Avenues
25. Nebraska and Thompson Avenues
26. 2nd Street and SR 99 Southbound Ramps
27. 2nd Street and SR 99 Northbound Ramps
28. 2nd Street and Whitson Street
29. Nebraska and Dockery Avenues
30. Nebraska and Del Rey Avenues
31. Mountain View and Highland Avenues
32. Mountain View and Thompson Avenues
33. Mountain View and McCall Avenues
34. Mountain View Avenue and SR 99 Southbound Off Ramp
35. Mountain View Avenue and SR 99 Southbound On Ramp

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36. Mountain View Avenue and SR 99 Northbound On Ramp
37. Mountain View Avenue and SR 99 Northbound Off Ramp
38. Mountain View Avenue and Golden State Boulevard
39. Dinuba Avenue and SR 99 Southbound Ramps (proposed future interchange)
40. Dinuba Avenue and SR 99 Northbound Ramps (proposed future interchange).

The locations of the study intersections are presented in Figure 2.1, Study Intersection Location Map.

2.2 - Study Scenarios

The analyses were performed in general conformance with the Caltrans *Guide for the Preparation of Traffic Impact Studies* dated December 2002. The study time periods include the weekday a.m. and p.m. peak hours determined between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. The peak hours were analyzed for the following scenarios:

- Existing Conditions; and
- Year 2035 Conditions with Proposed General Plan Update.

2.3 - Level of Service

The Transportation Research Board *Highway Capacity Manual*, 2000, (HCM) defines level of service (LOS) as a qualitative measure describing operational characteristics within a traffic stream, based on service measures such as speed and travel time, freedom to maneuver, traffic interruptions, comfort, and convenience. LOS characteristics for unsignalized and signalized intersections are presented in Tables 2.1 and 2.2, respectively. LOS characteristics for road segments are presented in Table 2.3.

Table 2.1
Level of Service Characteristics for Unsignalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Little or no delay.	0-10
B	Short delays.	>10-15
C	Average delays.	>15-25
D	Long delays.	>25-35
E	Very long delays.	>35-50
F	Extremely long delays.	>50

Reference: *Highway Capacity Manual*, Transportation Research Board

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Table 2.2
Level of Service Characteristics for Signalized Intersections

Level of Service	Description	Average Vehicle Delay (seconds)
A	Extremely favorable progression. Most vehicles arrive during green phase. Many vehicles do not stop.	≤10
B	Good progression.	>10-20
C	Fair progression. Significant number of vehicles stopped. Some queues do not clear.	>20-35
D	Noticeable congestion. Many vehicles stop. Individual cycle failures are noticeable. Queues often do not clear.	>35-55
E	Poor progression. Individual cycle failures are frequent. Queues frequently do not clear.	>55-80
F	Poor progression. Oversaturation. Many individual cycle failures and queues not cleared.	>80

Reference: *Highway Capacity Manual*, Transportation Research Board

Table 2.3
Level of Service Characteristics for Roadways

Level of Service	Description
A	Primarily free flow operations
B	Reasonably unimpeded operations, ability to maneuver only slightly restricted
C	Stable operations, ability to maneuver and select operating speed affected
D	Unstable flow, speeds and ability to maneuver restricted
E	Significant delays, flow quite unstable
F	Extremely slow speeds

Reference: 1998 *Highway Capacity Manual*, Transportation Research Board

The proposed Circulation Element will require that LOS D or better be maintained on all streets under the jurisdiction of the City of Selma, with the exception that local streets shall operate at LOS B or better.

State highways and freeways shall be subject to LOS criteria established by Caltrans. The Caltrans *Guide for the Preparation of Traffic Impact Studies* dated December 2002 indicates that Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D. In practice, this typically is interpreted as a minimum acceptable LOS C, with LOS D being unacceptable except in urban areas where LOS C is not feasible. For example, the Caltrans *State Route 43 Transportation Concept Report* dated December 2006 identifies LOS D as acceptable on SR 43 in Selma.

Queues at intersections are an important consideration in the planning of the circulation system. Intersections operating at acceptable LOS may include some movements, often left turns, that experience delays resulting in queues longer than the storage capacity of the lane. When left-turn queues exceed the available storage capacity, the adjacent through lane is impeded and congestion may result. Therefore, the consideration of queuing should be included in the planning process, and additional lanes should be planned where queues are expected to be excessive, even if LOS criteria are not exceeded.

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2.4 - Intersection Analysis Methodology

The levels of service and 95th-percentile queues at the study intersections were determined using the computer program Synchro 6 (Build 614), which is based on the HCM procedures for calculating levels of service. Queue lengths are reported only for signalized intersections.

For signalized intersections and all-way-stop-controlled intersections, the overall intersection LOS and the average delay per vehicle are presented. For one-way and two-way stop-controlled intersections an overall intersection LOS is not defined in the HCM. Therefore, for one-way and two-way stop-controlled intersections the LOS and average delay per vehicle for the movement with the greatest delay is reported.

Peak-hour factors (PHF) for the existing-conditions analyses were determined based on the existing traffic volumes. The HCM suggests that a PHF of 0.92 in urban areas and 0.88 in rural areas may be used in the absence of field data. For purposes of the year 2035 analyses performed for this study, in which field data is not available and traffic volumes are projected, a PHF of 0.92 is used unless the existing PHF is already greater than 0.92. In such cases the greater PHF is used.

2.5 - Road Segment Analysis Methodology

Road segment analyses were based on the Florida Department of Transportation Generalized Q/LOS Tables. The Florida road segment tables were developed based on procedures outlined in the HCM and are widely utilized in the central San Joaquin Valley as an acceptable method for analysis of road segments.

Table 4-4, Generalized Peak Hour Two-Way Volumes for Florida's Urbanized Areas (Non-State Roadways, Major City/County Roadways) was utilized in the analysis. The table is attached in Appendix A. Table 2.4 presents the specific volume thresholds used in the analyses.

Table 2.4
Volume Thresholds for Roadway Levels of Service

Lanes	Median	A	B	C	D	E	F
2	Undivided - No LT lanes	-	-	≤696	697 – 1,112	1,113 – 1,184	>1,184
2	Undivided with LT lanes	-	-	≤870	871 – 1,390	1,391 – 1,480	>1,480
2	Divided with LT lanes	-	-	≤913	914 – 1,459	1,460 – 1,554	>1,554
4	Undivided - No LT lanes	-	-	≤1,522	1,523 – 2,212	2,213 – 2,340	>2,340
4	Undivided with LT lanes	-	-	≤1,928	1,929 – 2,802	2,803 – 2,964	>2,964
4	Divided with LT lanes	-	-	≤2,030	2,031 – 2,950	2,951 – 3,120	>3,120
6	Divided with LT lanes	-	-	≤3,170	3,171 – 4,450	4,451 – 4,690	>4,690

Reference: Florida Department of Transportation Table 4-4, Generalized Peak Hour Two-Way Volumes for Florida's Urbanized Areas (Non-State Roadways, Major City/County Roadways)

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3.0 - EXISTING CONDITIONS

3.1 - Existing Roadway Network

The existing lane configurations and intersection control at the study intersections are illustrated in Figure 3.1, Existing Lane Configurations and Intersection Control.

3.2 - Existing Traffic Volumes

Existing traffic volumes were determined by performing manual turning movement counts at each of the study intersections. The traffic count data sheets are attached in Appendix B. Existing peak hour turning movement volumes at the study intersections are presented in Figure 3.2, Existing Peak Hour Traffic Volumes.

3.3 - Existing Intersection Level of Service

The results of the existing-conditions intersection LOS analyses are summarized in Table 3.1. The intersection analysis sheets are presented in Appendix C.

3.4 - Existing Conditions Road Segment Analyses

The results of the existing-conditions road segment analyses are summarized in the Road Segment Analysis Table presented in Appendix D. The Road Segment Analysis Table combines the existing-conditions analyses and the year 2035 analyses.

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Table 3.1
Intersection Analysis Summary – Existing Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / DeWolf	TWS	17.4	C	24.2	C
Manning / McCall	Signal	18.0	B	21.7	C
Manning / Del Rey	OWS	13.1	B	19.8	C
Dinuba / Temperance	TWS	9.2	A	9.2	A
Dinuba / DeWolf	-	-	-	-	-
Dinuba / Golden State	TWS	22.7	C	**54.0**	**F**
Dinuba / Highland	OWS	11.3	B	15.0	C
Dinuba / McCall	AWS	15.3	C	18.4	C
Dinuba / Dockery	TWS	11.0	B	10.5	B
Dinuba / Orange (west)	OWS	11.6	B	12.7	B
Dinuba / Orange (east)	OWS	10.3	B	9.7	A
Dinuba / Del Rey	OWS	10.7	B	11.1	B
Floral / DeWolf	TWS	10.0	B	10.8	B
Floral / SR 99 SB	Signal	22.9	C	17.7	B
Floral / Highland	Signal	15.4	B	23.6	C
Floral / SR 99 NB	Signal	6.5	A	7.5	A
Floral / Whitson	Signal	19.0	B	20.1	C
Floral / McCall	Signal	23.4	C	21.7	C
Floral / Orange	AWS	8.7	A	11.7	B
Floral / Del Rey	OWS	11.0	B	12.3	B
SR 99 SB / Highland	Signal	11.3	B	12.8	B
Rose / Highland	TWS	23.7	C	**50.4**	**F**
Rose / Dockery	AWS	7.3	A	7.2	A
Nebraska / Highland	Signal	9.1	A	12.0	B
Nebraska / Thompson	AWS	8.8	A	9.6	A
2nd / SR 99 SB	OWS	22.9	C	**37.4**	**E**
2nd / SR 99 NB	OWS	22.1	C	20.0	C
2nd / Whitson	Signal	20.7	C	19.5	B
Nebraska / Dockery	AWS	7.1	A	7.4	A
Nebraska / Del Rey	-	-	-	-	-
Mtn. View / Highland	Signal	13.9	B	14.6	B
Mtn. View / Thompson	TWS	10.4	B	11.7	B
Mtn. View / McCall	AWS	8.0	A	9.2	A
Mtn. View / SR 99 SB Off	TWS	22.3	C	**50.9**	**F**
Mtn. View / SR 99 SB On	OWS	1.7	A	2.0	A
Mtn. View / SR 99 NB On	OWS	1.5	A	2.1	A
Mtn. View / SR 99 NB Off	OWS	13.9	B	25.8	D
Mtn. View / Golden State	Signal	20.7	C	21.1	C
Dinuba / SR 99 SB	-	-	-	-	-
Dinuba / SR 99 NB	-	-	-	-	-

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3.5 - Existing Deficiencies

The following study intersections are currently operating at substandard levels of service:

- Dinuba Avenue and Golden State Boulevard;
- Rose and Highland Avenues;
- 2nd Street and SR 99 Southbound Ramps;
- Mountain View Avenue and SR 99 Southbound Ramps.

The following road segment currently operates at substandard levels of service:

- 2nd Street between Whitson Street and McCall Avenue.

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4.0 - ANALYSIS OF PROPOSED 2035 GENERAL PLAN CONDITIONS

4.1 - Traffic Modeling

The Council of Fresno County Governments (COG) maintains a travel model that is typically used to forecast traffic volumes in Fresno County. The proposed Land Use and Circulation Map along with other pertinent Project information were provided to COG and the proposed 2035 conditions were incorporated into the model by COG. The modeling assumed build out of the proposed residential land uses at a density yielding 70,000 residents in the year 2035. The employment capacity of the planned land uses was maximized, and no development was assumed within the reserve areas.

4.2 - Year 2035 Traffic Volumes

Year 2035 traffic-volume forecasts were obtained using the COG travel model and the COG Increment Method, which is described in a document available from the COG entitled *"Model Steering Committee Recommended Procedures for Using Traffic Projections from the Fresno COG Travel Model dated December 2002."* The Increment Method forecasts future traffic volumes by determining the growth projected by the model between the base year and the horizon year. This growth is then added to the existing traffic volumes.

Future turning movements were estimated based on the methods presented in Chapter 8 of the Transportation Research Board National Cooperative Highway Research Program Report 255 entitled *"Highway Traffic Data for Urbanized Area Project Planning and Design."* The Year 2035 traffic volumes are presented in Figure 4.1, Year 2035 Peak-Hour Traffic Volumes.

4.3 - Physical Constraints

The following road segments appear to have existing physical constraints, such as existing curb, gutter, sidewalk, and adjacent development, which may limit the feasibility of constructing the full width of the planned roadway section:

- Floral Avenue between Wright and Dockery Avenues;
- Nebraska Avenue between Highland Avenue and 2nd Street;
- Nebraska Avenue between Golden State Boulevard and Dockery Avenue;
- Highland Avenue between Golden State Boulevard and the SR 43 Diagonal;
- McCall Avenue between Floral Avenue and Arrants Street;
- McCall Avenue between Whitson Street and approximately Blaine Avenue;
- Whitson Street between Highland and Nebraska Avenues;
- 2nd Street between Nebraska and McCall Avenues.

The number of lanes assumed in the analyses for these road segments is presented in the Road Segment Analysis Table in Appendix D.

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The following intersections appear to have existing physical constraints, such as existing curb, gutter, sidewalk, and adjacent development, which may limit the feasibility of constructing the full width of the planned roadway section, construction of left-turn lanes, or installation of traffic signals:

- Floral Avenue and SR 99 Southbound Ramps;
- Floral and Highland Avenues;
- Floral Avenue and SR 99 Northbound Ramps;
- Floral Avenue and Whitson Street;
- Floral and McCall Avenues;
- Floral and Orange Avenues;
- SR 99 Southbound Ramps and Highland Avenue;
- Rose and Dockery Avenues;
- Nebraska and Thompson Avenues;
- 2nd Street and SR 99 Southbound Ramps;
- 2nd Street and SR 99 Northbound Ramps;
- 2nd Street and Whitson Street; and
- Nebraska and Dockery Avenues.

The intersection configuration at these locations was typically maintained as the existing configuration with the addition of traffic signals. Traffic signals were not assumed at the intersection of Rose and Dockery Avenues and at the intersection of Nebraska and Dockery Avenues due to the limitations of the existing configuration.

4.4 - Intersection Analyses

The results of the year 2035 intersection LOS analyses are summarized in Table 4.1. It is assumed that intersections of two streets both designated as a collector or greater will eventually require signalization. Therefore, the analyses presented herein include the assumption that the study intersections are signalized to verify the adequacy of the planned ultimate conditions. Deficiencies are identified in bold type. The intersection analysis sheets are presented in Appendix C.

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Table 4.1
Intersection Analysis Summary – Year 2035 Conditions

Intersection	Control	A.M. Peak Hour		P.M. Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS
Manning / DeWolf	Signal	20.1	C	34.6	C
Manning / McCall	Signal	21.0	C	32.5	C
Manning / Del Rey	Signal	11.3	B	11.6	B
Dinuba / Temperance	Signal	21.9	C	25.9	C
Dinuba / DeWolf	Signal	10.4	B	22.0	C
Dinuba / Golden State	Signal	18.5	B	26.6	C
Dinuba / Highland	Signal	10.2	B	16.1	B
Dinuba / McCall	Signal	20.5	C	22.7	C
Dinuba / Dockery	Signal	22.8	C	24.2	C
Dinuba / Orange	Signal	14.6	B	17.6	B
Dinuba / Del Rey	Signal	16.9	B	21.0	C
Floral / DeWolf	Signal	20.1	C	22.2	C
Floral / SR 99 SB	Signal	*****	**F**	**159.6**	**F**
Floral / Highland	Signal	36.6	D	**180.3**	**F**
Floral / SR 99 NB	Signal	12.6	B	48.3	D
Floral / Whitson	Signal	27.3	C	**137.7**	**F**
Floral / McCall	Signal	46.8	D	**164.4**	**F**
Floral / Orange	Signal	9.5	A	19.4	B
Floral / Amber	Signal	18.2	B	18.4	B
SR 99 SB / Highland	Signal	19.1	B	48.7	D
Rose / Highland	Signal	20.5	C	32.8	C
Rose / Dockery	AWS	10.4	B	11.6	B
Nebraska / Highland	Signal	17.0	B	19.5	B
Nebraska / Thompson	Signal	9.7	A	**78.4**	**E**
2nd / SR 99 SB	Signal	15.3	B	17.4	B
2nd / SR 99 NB	Signal	9.2	A	11.2	B
2nd / Whitson	Signal	**63.0**	**E**	**179.8**	**F**
Nebraska / Dockery	AWS	13.5	B	21.5	C
Nebraska / Amber	Signal	21.0	C	18.3	B
Mtn. View / Highland	Signal	18.6	B	23.1	C
Mtn. View / Thompson	Signal	18.8	B	24.2	C
Mtn. View / McCall	Signal	20.5	C	27.2	C
Mtn. View / SR 99 SB	Signal	35.6	D	**88.9**	**F**
Mtn. View / SR 99 NB	Signal	16.4	B	**74.4**	**E**
Mtn. View / Golden State	Signal	26.4	C	**102.9**	**F**
Dinuba / SR 99 SB	Signal	10.4	B	10.9	B
Dinuba / SR 99 NB	Signal	11.6	B	10.6	B

* Excessive delays not calculated.

4.5 - Road Segment Analyses

The results of the year 2035 road segment analyses are summarized in the Road Segment Analysis Table presented in Appendix D. The Road Segment Analysis Table combines the existing-conditions analyses and the year 2035 analyses.

ADMIN DRAFT

4.6 - Deficiencies in Proposed Circulation Plan

The following study intersections are expected to operate at substandard levels of service in the year 2035:

- Floral Avenue and SR 99 Southbound Ramps;
- Floral and Highland Avenues;
- Floral Avenue and Whitson Street;
- Floral and McCall Avenues;
- Nebraska and Thompson Avenues;
- 2nd and Whitson Streets;
- Mountain View Avenue and SR 99 Southbound Ramps;
- Mountain View Avenue and SR 99 Northbound Ramps;
- Mountain View Avenue and Golden State Boulevard.

The following road segments are expected to operate at substandard levels of service in the year 2035:

- Floral Avenue between Leonard and Dockery Avenues;
- Nebraska Avenue between Highland Avenue and 2nd Street;
- Mountain View Avenue between Dockery and Bethel Avenues;
- McCall Avenue between Floral Avenue and Arrants Street;
- McCall Avenue between Whitson Street and approximately Blaine Avenue;
- Whitson Street between Thompson and Nebraska Avenues;
- 2nd Street between Nebraska and McCall Avenues.

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5.0 - DISCUSSION OF PROPOSED 2035 GENERAL PLAN CONDITIONS

5.1 - Intersections

It is recommended that the City of Selma establish standard lane configurations at intersections. Figures 5.1 through 5.3 present intersection lane diagrams for major arterials, arterials, and collectors, respectively. Alternatives for installing dual left-turn lanes generally accommodated within the planned right of way are presented. In new growth areas, these lane configurations and eventual signalization are expected to result in acceptable levels of service. The analyses indicate that dual left-turn lanes should be considered at the locations listed below. It should be noted that dual lefts on one approach usually need to be mirrored on the opposite approach to align the adjacent through lanes. It is also noted that intersections at interchanges are discussed below and are not included in this list.

- Manning and DeWolf Avenues (westbound and northbound)
- Manning and McCall Avenues (all approaches)
- Dinuba and DeWolf Avenues (location depends upon interchange configuration)
- Dinuba Avenue and Golden State Boulevard (all approaches)
- Dinuba and McCall Avenues (all approaches)
- Floral and Highland Avenues (eastbound and westbound)
- Floral Avenue and Whitson Street (northbound)
- Nebraska and Highland Avenues (all approaches)
- Mountain View and Highland Avenues (all approaches)
- Mountain View and McCall Avenues (all approaches)
- Mountain View Avenue and Golden State Boulevard (all approaches, or grade separation - see discussion below).

The intersection of Mountain View Avenue and Golden State Boulevard is adjacent to existing railroad tracks. Figure 5.4 presents Precise Plan Lines (PPL) in the vicinity of the intersection developed by the County of Fresno. The PPL accommodates an overhead structure allowing Mountain View Avenue to be elevated with a bridge passing over Golden State Boulevard and the railroad tracks. However, the PPL is not expected to accommodate the arterial designation of Mountain View Avenue currently proposed. To maintain connectivity between Mountain View Avenue and Golden State Boulevard, the PPL illustrates a connector road on the north side of Mountain View Avenue between SR 99 and Golden State Boulevard, connecting to the west side of Golden State Boulevard. It is likely that this configuration will result in the connector road intersection being located too near the interchange with insufficient storage capacity for queues. The alternative of constructing the connector road on the east side of the grade separation would require a railroad crossing and defeats some of the benefit of the grade separation.

The planned regional commercial land uses north of Mountain View Avenue between SR 99 and Golden State Boulevard are likely to require convenient access to SR 99. Further detailed studies will be required to determine a grade separation structure with convenient access, such as a single-point urban interchange (Type L-13) or similar structure. Figure 5.5, Conceptual Grade Separation, Intersection of Mountain View Avenue and Golden State Boulevard, presents a concept that may be applicable to this location.

ADMIN DRAFT

Several intersections are expected to operate at substandard levels of service with implementation of the proposed General Plan (see Section 4.6), primarily because the intersections and the adjacent properties are already developed. The improvement of these intersections can be pursued by the City, but funding may not be readily available. Therefore, these locations may be considered to be constrained as described later in this report.

5.2 - Road Segments

A majority of the planned roadways are expected to operate at acceptable levels of service. However, the following road segments are expected to require additional lanes and it is recommended that the designation be upgraded to "Major Arterial":

- Floral Avenue between Leonard and Dockery Avenues;
- Mountain View Avenue between Dockery and Bethel Avenues.

Several road segments are expected to operate at substandard levels of service with implementation of the proposed General Plan (see Section 4.6), primarily because the roads and the adjacent properties are already developed. The widening of these road segments can be pursued by the City, but funding may not be readily available. Therefore, these locations may be considered to be constrained as described later in this report.

- Nebraska Avenue between Highland Avenue and 2nd Street;
- McCall Avenue between Floral Avenue and Arrants Street;
- McCall Avenue between Whitson Street and approximately Blaine Avenue;
- Whitson Street between Thompson and Nebraska Avenues;
- 2nd Street between Nebraska and McCall Avenues.

5.3 - Freeway Interchanges

Dinuba Avenue and State Route 99

The proposed interchange is a new connection to SR 99 and is spaced approximately 1.3 miles north of the existing Floral Avenue interchange and 1.3 miles south of the existing Manning Avenue interchange. The proposed interchange and the proposed modification of the SR 43 alignment will provide an alternative to the Floral Avenue interchange. It is anticipated that an L-9 interchange configuration will provide acceptable operations. The special considerations in the design of this interchange will include realigning Dinuba Avenue and DeWolf Avenue to minimize the number of bridges that are to be constructed and to maximize the distance between the interchange and adjacent intersections. Also to be considered is the desirability of connecting SR 43 directly to the interchange, rather than connecting it to Dinuba Avenue west of the interchange as presented in the Circulation Plan. A conceptual interchange layout is presented in Figure 5.6, Conceptual Interchange Layout, Dinuba Avenue and State Route 99.

The proposed interchange will require a substantial amount of additional study to gain approval from Caltrans and to determine the actual interchange design. More detailed studies are beyond the scope of this study and will require coordination between City staff and Caltrans staff.

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Floral Avenue / Highland Avenue and State Route 99

The Floral Avenue / Highland Avenue interchange with SR 99 was the subject of an interchange analysis report dated July 16, 2008 by Peters Engineering Group. The report presented several interchange alternatives to increase capacity and to accommodate development in the vicinity of the interchange. The results were discussed with Caltrans staff and the configuration illustrated in the attached Figure 5.7, Conceptual Interchange Layout, Floral Avenue/Highland Avenue and State Route 99, are considered to be a feasible improvement. Additional intersection analyses utilizing the 2035 General Plan traffic volumes are included in Appendix E and indicate that the intersection of Floral Avenue and the southbound SR 99 ramps is expected to operate at substandard LOS. The intersection of Floral and Highland Avenues is also expected to operate at substandard LOS.

To operate at acceptable LOS, the interchange would require a major reconstruction that would likely affect access to adjacent properties and may require additional right of way.

2nd Street and State Route 99

The intersection analyses indicate that the interchange is expected to require signalization to operate at acceptable levels of service. It is not anticipated that significant physical modifications will be required.

Mountain View Avenue and State Route 99

The Mountain View Avenue interchange with SR 99 is located adjacent to planned commercial areas and is expected to experience a significant increase in traffic volumes with implementation of the proposed General Plan. Caltrans District 6 staff recently have indicated that full cloverleaf interchanges are not preferable due to weaving issues, and that an L-9 interchange is the most likely to be constructed at this location. A conceptual interchange layout is presented in Figure 5.8, Conceptual Interchange Layout, Mountain View Avenue and State Route 99. The interchange design will need to include consideration of the adjacent intersection of Mountain View Avenue and Golden State Boulevard, including potential grade separations and connector roads.

5.4 - Need for Future Studies

The traffic analyses performed for this study and presented herein are high-level studies for planning purposes that do not contain sufficient detail to determine project-specific impacts and circulation needs as development progresses. Traffic studies should be performed to satisfy the requirements of the California Environmental Quality Act (CEQA) for all developments in the City of Selma. As a guide, traffic studies should be performed for all proposed General Plan Amendments, proposed specific plans, projects expected to generate more than 100 total trips per hour, and at the discretion of the City Engineer. Future traffic studies should generally conform to the Caltrans *Guide for the Preparation of Traffic Impact Studies* and any guidelines established by the City. The studies should be performed to determine opening-day impacts of proposed projects and as confirmation or revision of the General Plan. The studies should address queue lengths and (at a minimum) peak-hour traffic signals warrants in addition to LOS and provide appropriate mitigations. At the discretion of the City Engineer, a complete warrant study in accordance with the most recent edition of the California Manual on Uniform Traffic Control Devices may be required to evaluate the need for traffic signals.

ADMIN DRAFT

As described above, future studies will be required for improvements related to interchanges on SR 99. Further studies are likely to be required for the proposed modification of the SR 43 alignment. Caltrans may require conceptual approval reports, project study reports, and project reports.

It is recommended that an impact fee be developed to fund the various improvements to be implemented with the proposed General Plan. An impact fee study may be required.

ADMIN DRAFT

6.0 - CONSTRAINED CONDITIONS

The traffic analyses identified locations that are constrained. At these locations, operations meeting the City's standard LOS D are not expected to be feasible without major reconstruction and possibly the acquisition of additional right of way in developed areas. The following locations are considered to be constrained, with the associated level of service presented in parentheses:

Intersections

- Floral Avenue and SR 99 Southbound Ramps (LOS E even with improvements);
- Floral and Highland Avenues (LOS F even with improvements);
- Floral Avenue and Whitson Street (LOS F);
- Floral and McCall Avenues (LOS F);
- Nebraska and Thompson Avenues (LOS E);
- 2nd and Whitson Streets (LOS F).

Road Segments

- Floral Avenue between Leonard and Dockery Avenues (LOS F if constructed as an "Arterial," not constrained if converted to a "Major Arterial";
- Mountain View Avenue between Dockery and Bethel Avenues (LOS F if constructed as an "Arterial," not constrained if converted to a "Major Arterial";
- Nebraska Avenue between Highland Avenue and 2nd Street (LOS F);
- McCall Avenue between Floral Avenue and Arrants Street (LOS F);
- McCall Avenue between Whitson Street and approximately Blaine Avenue (LOS F);
- Whitson Street between Thompson and Nebraska Avenues (LOS F);
- 2nd Street between Nebraska and McCall Avenues (LOS F).

At these locations the City standard LOS D shall not apply and a statement of overriding considerations should be made to allow the substandard LOS at these locations. If funding is available, the City may reconstruct these locations to achieve the target LOS.

ADMIN DRAFT

7.0 - CONCLUSIONS AND RECOMMENDATIONS

Generally-accepted traffic engineering principles and methods were employed to analyze the existing traffic conditions and those expected to occur with implementation of the proposed General Plan Update. The conclusion of this study is that the proposed Circulation Map is generally expected to provide for efficient movement of traffic through the City of Selma. Some modifications to the plan are expected to be required as follows:

- Floral Avenue between Leonard and Dockery Avenues should be upgraded to a "Major Arterial";
- Mountain View Avenue between Dockery and Bethel Avenues should be upgraded to a "Major Arterial;
- The alignments of Dinuba Avenue and DeWolf Avenue should be modified adjacent to the proposed Dinuba Avenue interchange in accordance with the conceptual interchange layout drawing presented herein.

It is recommended that the City of Selma establish standard lane configurations at intersections, similar to those presented in Figures 5.1 through 5.3. Dual left-turn lanes should be considered at the following locations:

- Manning and DeWolf Avenues (westbound and northbound)
- Manning and McCall Avenues (all approaches)
- Dinuba and DeWolf Avenues (location depends upon interchange configuration)
- Dinuba Avenue and Golden State Boulevard (all approaches)
- Dinuba and McCall Avenues (all approaches)
- Floral and Highland Avenues (eastbound and westbound)
- Floral Avenue and Whitson Street (northbound)
- Nebraska and Highland Avenues (all approaches)
- Mountain View and Highland Avenues (all approaches)
- Mountain View and McCall Avenues (all approaches)
- Mountain View Avenue and Golden State Boulevard (all approaches, or grade separation - see discussion below).

The intersection of Mountain View Avenue and Golden State Boulevard is expected to require special treatment and further study for construction of a grade separation for the existing railroad tracks.

Freeway interchanges in the City of Selma are expected to require upgrades to accommodate the implementation of the General Plan. Conceptual upgrades are discussed herein; however, more detailed studies at each location will be required.

ADMIN DRAFT

Several constrained intersections and road segments are expected to operate at substandard levels of service with implementation of the proposed General Plan, primarily because the intersections and the adjacent properties are already developed. The improvement of these intersections can be pursued by the City, but funding may not be readily available. The following locations are constrained and a statement of overriding considerations should be made to allow the substandard LOS at these locations:

Intersections

- Floral Avenue and SR 99 Southbound Ramps (LOS E even with improvements);
- Floral and Highland Avenues (LOS F even with improvements);
- Floral Avenue and Whitson Street (LOS F);
- Floral and McCall Avenues (LOS F);
- Nebraska and Thompson Avenues (LOS E);
- 2nd and Whitson Streets (LOS F).

Road Segments

- Floral Avenue between Leonard and Dockery Avenues (LOS F if constructed as an "Arterial," not constrained if converted to a "Major Arterial";
- Mountain View Avenue between Dockery and Bethel Avenues (LOS F if constructed as an "Arterial," not constrained if converted to a "Major Arterial";
- Nebraska Avenue between Highland Avenue and 2nd Street (LOS F);
- McCall Avenue between Floral Avenue and Arrants Street (LOS F);
- McCall Avenue between Whitson Street and approximately Blaine Avenue (LOS F);
- Whitson Street between Thompson and Nebraska Avenues (LOS F);
- 2nd Street between Nebraska and McCall Avenues (LOS F).

The traffic analyses performed for this study and presented herein are high-level studies for planning purposes that do not contain sufficient detail to determine project-specific impacts and circulation needs as development progresses. Traffic studies should be performed to satisfy the requirements of the California Environmental Quality Act (CEQA) for all developments in the City of Selma. Traffic studies should be performed for all proposed General Plan Amendments, proposed specific plans, projects expected to generate more than 100 total trips per hour, and at the discretion of the City Engineer. Future traffic studies should generally conform to the Caltrans *Guide for the Preparation of Traffic Impact Studies* and any guidelines established by the City. The studies should be performed to determine opening-day impacts of proposed projects and as confirmation or revision of the General Plan. The studies should address queue lengths and (at a minimum) peak-hour traffic signals warrants in addition to LOS and provide appropriate mitigations. At the discretion of the City Engineer, a complete warrant study in accordance with the most recent edition of the California Manual on Uniform Traffic Control Devices may be required to evaluate the need for traffic signals.

It is recommended that an impact fee be developed to fund the various improvements to be implemented with the proposed General Plan. An impact fee study may be required.

ADMIN DRAFT

FIGURES

SITE VICINITY MAP
SELMA GENERAL PLAN
Selma, California

Not to Scale

LAND USE AND CIRCULATION MAP
SELMA GENERAL PLAN
Selma, California

Not to Scale

TYPICAL ARTERIAL CROSS SECTIONS
GENERAL PLAN UPDATE
Selma, California

TYPICAL COLLECTOR CROSS SECTIONS
GENERAL PLAN UPDATE
Selma, California

LEGEND

(X) = Intersection Location

STUDY INTERSECTION LOCATION MAP
SELMA GENERAL PLAN
Selma, California

Not to Scale

LEGEND

- SIGNALIZED INTERSECTION
- STOP SIGN
- DIRECTION OF TRAVEL
- P PROTECTED LEFT-TURN PHASE

Not to Scale

EXISTING LANE CONFIGURATIONS AND INTERSECTION CONTROL
SELMA GENERAL PLAN
Fresno County, California

LEGEND

XX-AM Peak Hour Volumes

(YY)-PM Peak Hour Volumes

Not to Scale

EXISTING PEAK HOUR TRAFFIC VOLUMES
SELMA GENERAL PLAN
Fresno County, California

LEGEND

XX-AM Peak Hour Volumes

(YY)-PM Peak Hour Volumes

Not to Scale

YEAR 2035 PEAK HOUR TRAFFIC VOLUMES
SELMA GENERAL PLAN
Fresno County, California

SINGLE LEFT - TURN LANE

DUAL LEFT - TURN LANE

LANE CONFIGURATIONS AT INTERSECTIONS - MAJOR ARTERIALS
GENERAL PLAN UPDATE
Selma, California

Not to Scale

SINGLE LEFT - TURN LANE

DUAL LEFT - TURN LANE

LANE CONFIGURATIONS AT INTERSECTIONS - ARTERIALS
GENERAL PLAN UPDATE
Selma, California

Not to Scale

LANE CONFIGURATIONS AT INTERSECTIONS - COLLECTORS
GENERAL PLAN UPDATE
Selma, California

Not to Scale

PRECISE PLAN LINE - MOUNTAIN VIEW AVENUE EAST OF SR 99
SELMA GENERAL PLAN
Selma, California

Not to Scale

UPRR / Mountain View / Golden State Crossing

CONCEPTUAL GRADE SEPARATION
INTERSECTION OF MOUNTAIN VIEW AVENUE AND GOLDEN STATE BOULEVARD
SELMA GENERAL PLAN
Selma, California

Not to Scale

CONCEPTUAL INTERCHANGE LAYOUT
DINUBA AVENUE AND STATE ROUTE 99
GENERAL PLAN UPDATE
Selma, California

Not to Scale

CONCEPTUAL INTERCHANGE LAYOUT
FLORAL AVENUE / HIGHLAND AVENUE AND STATE ROUTE 99
GENERAL PLAN UPDATE
Selma, California

Not to Scale

CONCEPTUAL INTERCHANGE LAYOUT
MOUNTAIN VIEW AVENUE AND STATE ROUTE 99
GENERAL PLAN UPDATE
Selma, California

Not to Scale

APPENDIX A

FLORIDA TABLES FOR ROAD SEGMENT ANALYSES

TABLE 4 – 4

GENERALIZED PEAK HOUR TWO-WAY VOLUMES FOR FLORIDA'S URBANIZED AREAS*

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	210	730	1,450	2,060	2,620
4	Divided	1,940	3,140	4,540	5,870	6,670
6	Divided	2,900	4,700	6,800	8,810	10,010

STATE TWO-WAY ARTERIALS

Class I (>0.00 to 1.99 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	400	1,310	1,560	1,610
4	Divided	460	2,780	3,300	3,390	***
6	Divided	700	4,240	4,950	5,080	***
8	Divided	890	5,510	6,280	6,440	***

Class II (2.00 to 4.50 signalized intersections per mile)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	180	1,070	1,460	1,550
4	Divided	**	390	2,470	3,110	3,270
6	Divided	**	620	3,830	4,680	4,920
8	Divided	**	800	5,060	6,060	6,360

Class III (more than 4.5 signalized intersections per mile and not within primary city central business district of an urbanized area over 750,000)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	500	1,200	1,470
4	Divided	**	**	1,180	2,750	3,120
6	Divided	**	**	1,850	4,240	4,690
8	Divided	**	**	2,450	5,580	6,060

Class IV (more than 4.5 signalized intersections per mile and within primary city central business district of an urbanized area over 750,000)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	490	1,310	1,420
4	Divided	**	**	1,170	2,880	3,010
6	Divided	**	**	1,810	4,350	4,520
8	Divided	**	**	2,460	5,690	5,910

NON-STATE ROADWAYS

Major City/County Roadways

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	870	1,390	1,480
4	Divided	**	**	2,030	2,950	3,120
6	Divided	**	**	3,170	4,450	4,690

Other Signalized Roadways
(signalized intersection analysis)

Lanes	Divided	Level of Service A	B	C	D	E
2	Undivided	**	**	450	950	1,200
4	Divided	**	**	1,050	2,070	2,400

Source: Florida Department of Transportation 05/17/07
Systems Planning Office
605 Suwannee Street, MS 19
Tallahassee, FL 32399-0450
http://www.dot.state.fl.us/planning/systems/sm/los/default.htm

FREEWAYS

Interchange spacing ≥ 2 mi. apart

Lanes	Level of Service A	B	C	D	E
4	2,310	3,840	5,350	6,510	7,240
6	3,580	5,930	8,270	10,050	11,180
8	4,840	8,020	11,180	13,600	15,130
10	6,110	10,110	14,110	17,160	19,050
12	7,360	12,200	17,020	20,710	23,000

Interchange spacing < 2 mi. apart

Lanes	Level of Service A	B	C	D	E
4	2,050	3,350	4,840	6,250	7,110
6	3,240	5,250	7,600	9,840	11,180
8	4,420	7,160	10,360	13,420	15,240
10	5,600	9,070	13,130	16,980	19,310
12	6,780	10,980	15,890	20,560	23,360

BICYCLE MODE

(**Note**: Level of service for the bicycle mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of bicyclists using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder Bicycle Lane Coverage	Level of Service A	B	C	D	E
0-49%	**	**	310	1,310	>1,310
50-84%	**	240	390	>390	***
85-100%	300	680	>680	***	***

PEDESTRIAN MODE

(**Note:** Level of service for the pedestrian mode in this table is based on roadway geometrics at 40 mph posted speed and traffic conditions, not number of pedestrians using the facility.) (Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	Level of Service A	B	C	D	E
0-49%	**	**	**	600	1,480
50-84%	**	**	**	940	1,800
85-100%	**	210	1,080	>1,080	***

BUS MODE (Scheduled Fixed Route)

(Buses per hour)

(**Note:** Buses per hour shown are only for the **peak hour** in the **single direction** of higher traffic flow)

Sidewalk Coverage	Level of Service A	B	C	D	E
0-84%	**	>5	≥4	≥3	≥2
85-100%	>6	>4	≥3	≥2	≥1

ARTERIAL/NON-STATE ROADWAY ADJUSTMENTS

(alter corresponding volume by the indicated percent)

Lanes	Median	Left Turns Lanes	Adjustment Factors
2	Divided	Yes	+5%
2	Undivided	No	-20%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

ONE-WAY FACILITIES

Multiply the corresponding two-directional volumes in this table by 0.6.

*Values shown are presented as hourly two-way volumes for levels of service and are for the automobile/truck modes unless specifically stated Although presented as peak hour two-way volumes, they actually represent peak hour peak direction conditions with an applicable D factor applied This table does not constitute a standard and should be used only for general planning applications The computer models from which this table is derived should be used for more specific planning applications The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist Level of service letter grade thresholds are probably not comparable across modes and, therefore, cross modal comparisons should be made with caution Furthermore, combining levels of service of different modes into one overall roadway level of service is not recommended Calculations are based on planning applications of the Highway Capacity Manual, Bicycle LOS Model, Pedestrian LOS Model and Transit Capacity and Quality of Service Manual, respectively for the automobile/truck, bicycle, pedestrian and bus modes

**Cannot be achieved using table input value defaults

***Not applicable for that level of service letter grade For automobile/truck modes, volumes greater than level of service D become F because intersection capacities have been reached For bicycle and pedestrian modes, the level of service letter grade (including F) is not achievable, because there is no maximum vehicle volume threshold using table input value defaults

APPENDIX B

TRAFFIC COUNT DATA SHEETS

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Rose DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Dockery DAY: THURSDAY PROJECT# 07-8129-020

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	0	3	5	1	1	2	22	3	0	18	3	60
7:15 AM	1	1	2	7	6	1	2	19	6	1	19	3	68
7:30 AM	3	4	2	2	9	1	0	20	4	0	11	0	56
7:45 AM	2	2	2	4	3	2	0	21	1	5	19	2	63
8:00 AM	3	2	2	1	0	0	3	30	2	1	27	0	71
8:15 AM	0	3	4	8	4	2	3	32	2	1	32	1	92
8:30 AM	2	3	2	7	4	1	1	40	4	1	28	1	94
8:45 AM	3	1	2	6	2	7	7	31	3	0	23	0	85
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	16	16	19	40	29	15	18	215	25	9	177	10	589

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	8	9	10	22	10	10	14	133	11	3	110	2	342
PEAK HR. FACTOR:		0.964			0.700			0.878			0.846		0.910

CONTROL: 4-WAY STOP SIGN

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Rose DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Dockery DAY: THURSDAY PROJECT# 07-8129-020

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2	4	5	3	12	1	2	13	2	2	12	2	60
4:15 PM	4	5	9	1	10	1	2	11	3	1	13	2	62
4:30 PM	1	2	7	2	10	3	1	20	2	0	11	3	62
4:45 PM	4	2	6	3	11	1	2	21	3	4	15	5	77
5:00 PM	1	0	4	7	10	1	3	24	0	0	16	1	67
5:15 PM	2	2	6	4	10	1	0	27	2	0	9	8	71
5:30 PM	1	3	5	5	5	2	1	21	2	2	5	1	53
5:45 PM	3	1	3	4	7	4	4	18	1	2	11	0	58
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 18	NT 19	NR 45	SL 29	ST 75	SR 14	EL 15	ET 155	ER 15	WL 11	WT 92	WR 22	TOTAL 510

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	8	6	23	16	41	6	6	92	7	4	51	17	277
PEAK HR. FACTOR:		0.771			0.875			0.905			0.750		0.899

CONTROL: 4-WAY STOP SIGN

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dockery DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 07-8129-019

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	1	0	0	0	4	3	3	1	0	5	0	18
7:15 AM	0	0	1	2	2	9	3	1	4	0	3	0	25
7:30 AM	2	1	0	2	3	8	8	3	2	0	6	0	35
7:45 AM	1	1	0	0	3	7	5	4	1	0	9	0	31
8:00 AM	2	0	0	0	0	4	5	0	2	0	1	1	15
8:15 AM	0	1	0	0	1	6	6	1	1	1	3	1	21
8:30 AM	0	2	0	0	4	5	4	1	1	0	6	1	24
8:45 AM	3	0	0	1	0	3	5	5	3	0	3	0	23
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	9	6	1	5	13	46	39	18	15	1	36	3	192

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	4	3	1	4	8	28	19	11	8	0	23	0	109
PEAK HR. FACTOR:		0.667			0.769			0.731			0.639		0.779

CONTROL: 4-WAY STOP SIGN

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dockery DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 07-8129-019

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	1	0	4	1	13	10	4	2	1	12	1	52
4:15 PM	2	3	0	1	1	14	15	7	1	0	13	1	58
4:30 PM	1	1	0	1	2	11	5	4	2	0	10	4	41
4:45 PM	3	3	0	2	3	12	10	8	0	0	8	1	50
5:00 PM	0	1	1	2	0	9	4	9	2	0	3	0	31
5:15 PM	0	0	1	1	1	8	11	4	2	0	5	1	34
5:30 PM	1	1	1	2	1	9	8	5	1	0	2	1	32
5:45 PM	0	1	2	1	1	8	4	6	1	0	4	1	29
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	10	11	5	14	10	84	67	47	11	1	57	10	327

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	9	8	0	8	7	50	40	23	5	1	43	7	201
PEAK HR. FACTOR:		0.708			0.903			0.739			0.911		0.866

CONTROL: 4-WAY STOP SIGN

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dockery DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0.5	0	0.5	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				1		1	2	24			51	1	80
7:15 AM				0		2	6	41			54	1	104
7:30 AM				0		2	5	37			74	0	118
7:45 AM				0		3	6	42			76	1	128
8:00 AM				2		3	5	52			62	3	127
8:15 AM				1		0	0	46			62	0	109
8:30 AM				0		6	3	41			50	1	101
8:45 AM				2		3	2	35			46	1	89
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 6	ST 0	SR 20	EL 29	ET 318	ER 0	WL 0	WT 475	WR 8	TOTAL 856

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	0	0	0	3	0	8	16	177	0	0	274	4	482
PEAK HR. FACTOR:		0.000			0.550			0.846			0.903		0.941

CONTROL: 1-WAY STOP (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dockery DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0.5	0	0.5	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				0	0	5	4	45			36	0	90
4:15 PM				0	1	3	2	42			32	0	80
4:30 PM				0	1	2	3	60			50	0	116
4:45 PM				0	0	6	2	64			21	0	93
5:00 PM				0	0	3	2	63			47	0	115
5:15 PM				2	0	5	5	83			42	0	137
5:30 PM				0	0	5	5	81			47	2	140
5:45 PM				2	0	2	3	86			39	0	132
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 4	ST 2	SR 31	EL 26	ET 524	ER 0	WL 0	WT 314	WR 2	TOTAL 903

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	0	0	0	4	0	15	15	313	0	0	175	2	524
PEAK HR. FACTOR:		0.000			0.679			0.921			0.903		0.936

CONTROL: 1-WAY STOP (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Orange DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: WEDNESDAY PROJECT# 07-8129-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	4	1	5	5	3	6	26	3	1	37	1	94
7:15 AM	2	3	2	7	5	7	1	30	1	5	30	1	94
7:30 AM	4	2	3	5	9	5	3	22	4	4	38	3	102
7:45 AM	3	3	5	7	8	5	6	22	2	2	48	2	113
8:00 AM	1	4	5	2	3	6	5	31	1	1	62	3	124
8:15 AM	2	6	1	4	9	5	1	40	5	2	51	2	128
8:30 AM	3	3	2	3	1	4	2	33	4	6	34	1	96
8:45 AM	1	4	4	9	5	9	8	28	3	5	20	3	99
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	18	29	23	42	45	44	32	232	23	26	320	16	850

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	10	15	14	18	29	21	15	115	12	9	199	10	467
PEAK HR. FACTOR:		0.886			0.850			0.772			0.826		0.912

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Orange DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: WEDNESDAY PROJECT# 07-8129-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2	2	1	5	9	5	3	86	5	5	69	4	196
4:15 PM	3	3	3	3	2	5	3	84	1	3	65	7	182
4:30 PM	2	7	1	3	2	7	10	90	1	4	64	5	196
4:45 PM	1	2	2	2	4	9	5	85	2	3	76	6	197
5:00 PM	1	6	3	5	5	3	9	94	1	1	70	6	204
5:15 PM	2	4	1	2	11	5	11	61	3	2	79	5	186
5:30 PM	1	7	2	3	8	9	6	59	4	1	70	4	174
5:45 PM	0	6	1	1	7	6	9	51	6	3	85	5	180
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 12	NT 37	NR 14	SL 24	ST 48	SR 49	EL 56	ET 610	ER 23	WL 22	WT 578	WR 42	TOTAL 1515

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	6	19	7	12	22	24	35	330	7	10	289	22	783
PEAK HR. FACTOR:		0.800			0.806			0.894			0.933		0.960

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Orange DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0	0.5	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	8	0	3	2	6	6	2	22	1	2	38	1	91
7:15 AM	0	4	0	1	3	3	5	29	8	1	55	0	109
7:30 AM	3	1	4	0	1	1	1	27	12	0	76	0	126
7:45 AM	6	0	5	1	3	3	3	28	12	1	73	0	135
8:00 AM	8	0	2	0	4	4	2	49	1	2	55	0	127
8:15 AM	8	0	2	1	2	2	1	37	6	0	52	1	112
8:30 AM	5	1	0	0	2	2	3	41	2	2	45	2	105
8:45 AM	11	1	2	1	1	4	1	19	13	3	36	1	93
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	49	7	18	6	22	25	18	252	55	11	430	5	898

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	25	1	13	2	10	10	7	141	31	3	256	1	500
PEAK HR. FACTOR:		0.886			0.688			0.861			0.855		0.926

CONTROL: 1-WAY STOP (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Orange DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0	0.5	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	0	2	5	3	0	5	37	6	6	31	1	102
4:15 PM	8	0	4	2	2	5	2	34	5	2	25	0	89
4:30 PM	14	2	3	0	1	4	8	44	8	2	39	1	126
4:45 PM	10	2	2	1	4	7	11	49	10	2	25	3	126
5:00 PM	12	1	4	1	1	3	2	39	5	4	36	3	111
5:15 PM	14	0	3	0	0	0	1	71	11	4	33	1	138
5:30 PM	12	1	0	0	0	0	3	68	12	4	40	2	142
5:45 PM	12	0	3	0	1	2	1	72	9	3	29	1	133
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	88	6	21	9	12	21	33	414	66	27	258	12	967

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	50	2	10	1	2	5	7	250	37	15	138	7	524
PEAK HR. FACTOR:		0.912			0.400			0.886			0.870		0.923

CONTROL: 1-WAY STOP (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 07-8129-015

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	0	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM								3			5		8
7:15 AM								4			3		7
7:30 AM								5			6		11
7:45 AM								4			9		13
8:00 AM								1			2		3
8:15 AM								1			5		6
8:30 AM								1			7		8
8:45 AM								6			3		9
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 0	ST 0	SR 0	EL 0	ET 25	ER 0	WL 0	WT 40	WR 0	TOTAL 65

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	0	0	0	0	0	0	0	16	0	0	23	0	39
PEAK HR. FACTOR:		0.000			0.000			0.800			0.639		0.750

CONTROL: NO SIGNAL

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 07-8129-015

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	0	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM								8			14		22
4:15 PM								8			14		22
4:30 PM								5			14		19
4:45 PM								10			9		19
5:00 PM								12			3		15
5:15 PM								6			6		12
5:30 PM								8			3		11
5:45 PM								9			5		14
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	0	0	0	0	0	0	0	66	0	0	68	0	134

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	0	0	0	0	0	0	0	31	0	0	51	0	82
PEAK HR. FACTOR:		0.000			0.000			0.775			0.911		0.932

CONTROL: NO SIGNAL

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Thompson DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Nebraska DAY: WEDNESDAY PROJECT# 07-8129-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0.5	0.5	1	1	1	0	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	8	5	12	2	5	1	2	36	9	11	26	4	121
7:15 AM	9	7	10	1	3	2	2	28	10	13	34	5	124
7:30 AM	7	6	8	1	2	3	3	31	8	10	23	2	104
7:45 AM	5	3	8	3	3	1	4	35	8	9	27	1	107
8:00 AM	10	5	9	5	4	2	4	37	11	11	35	3	136
8:15 AM	11	4	11	4	5	0	1	34	7	12	31	3	123
8:30 AM	8	7	9	2	6	1	0	22	9	10	29	1	104
8:45 AM	9	4	10	2	2	1	1	29	12	8	33	4	115
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 67	NT 41	NR 77	SL 20	ST 30	SR 11	EL 17	ET 252	ER 74	WL 84	WT 238	WR 23	TOTAL 934

AM Peak Hr Begins at: 800 AM

PEAK VOLUMES =	38	20	39	13	17	4	6	122	39	41	128	11	478
PEAK HR. FACTOR:		0.933			0.773			0.803			0.918		0.879

CONTROL: 4-WAY STOP SIGN

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Thompson DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Nebraska DAY: WEDNESDAY PROJECT# 07-8129-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0.5	0.5	1	1	1	0	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	13	8	8	1	4	0	3	39	11	12	37	6	142
4:15 PM	11	9	14	3	4	2	5	40	8	14	34	2	146
4:30 PM	10	3	9	5	3	1	3	31	9	10	43	5	132
4:45 PM	11	4	16	1	3	1	1	34	11	8	46	3	139
5:00 PM	12	3	8	2	6	2	1	31	17	9	35	1	127
5:15 PM	13	1	10	2	3	2	2	33	12	8	31	2	119
5:30 PM	8	1	13	3	4	0	1	46	10	17	34	8	145
5:45 PM	6	6	9	4	3	0	0	36	15	15	42	4	140
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 84	NT 35	NR 87	SL 21	ST 30	SR 8	EL 16	ET 290	ER 93	WL 93	WT 302	WR 31	TOTAL 1090

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	45	24	47	10	14	4	12	144	39	44	160	16	559
PEAK HR. FACTOR:		0.853			0.778			0.920			0.948		0.957

CONTROL: 4-WAY STOP SIGN

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: WEDNESDAY PROJECT# 07-8129-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				2		1	0	32			38	2	75
7:15 AM				3		4	1	37			31	3	79
7:30 AM				6		2	5	25			43	4	85
7:45 AM				7		5	2	32			48	5	99
8:00 AM				3		4	1	37			62	2	109
8:15 AM				8		6	1	42			50	4	111
8:30 AM				6		2	0	39			40	4	91
8:45 AM				2		1	1	41			26	3	74
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 37	ST 0	SR 25	EL 11	ET 285	ER 0	WL 0	WT 338	WR 27	TOTAL 723

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	0	0	0	24	0	17	4	150	0	0	200	15	410
PEAK HR. FACTOR:		0.000			0.732			0.895			0.840		0.923

CONTROL: 1-WAY STOP SIGN (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: WEDNESDAY PROJECT# 07-8129-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	0	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				4		5	3	88			75	3	178
4:15 PM				2		7	3	87			66	2	167
4:30 PM				8		9	8	83			69	3	180
4:45 PM				1		7	3	85			78	2	176
5:00 PM				2		5	4	97			72	6	186
5:15 PM				0		3	2	62			85	1	153
5:30 PM				1		7	3	64			68	2	145
5:45 PM				2		0	1	53			91	0	147
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 20	ST 0	SR 43	EL 27	ET 619	ER 0	WL 0	WT 604	WR 19	TOTAL 1332

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	0	0	0	13	0	28	18	352	0	0	285	13	709
PEAK HR. FACTOR:		0.000			0.603			0.916			0.931		0.953

CONTROL: 1-WAY STOP SIGN (SB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mc Call DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: TUESDAY PROJECT# 07-8129-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	1	0	1	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	16	4	5	19	11	16	22	3	4	32	6	141
7:15 AM	4	20	2	7	24	11	18	23	9	4	33	2	157
7:30 AM	8	22	3	4	30	15	20	22	6	5	40	3	178
7:45 AM	11	28	1	6	42	15	21	26	10	5	45	7	217
8:00 AM	6	24	2	5	39	19	15	32	5	4	57	7	215
8:15 AM	6	26	4	5	42	20	25	42	11	4	46	8	239
8:30 AM	5	32	2	6	33	20	23	32	16	5	31	9	214
8:45 AM	14	26	3	6	25	14	33	33	19	4	18	6	201
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 57	NT 194	NR 21	SL 44	ST 254	SR 125	EL 171	ET 232	ER 79	WL 35	WT 302	WR 48	TOTAL 1562

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	28	110	9	22	156	74	84	132	42	18	179	31	885
PEAK HR. FACTOR:		0.919			0.940			0.827			0.838		0.926

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mc Call DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: TUESDAY PROJECT# 07-8129-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	1	0	1	1	0	1	1	0	1	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	8	30	10	8	47	16	53	81	20	10	55	13	351
4:15 PM	17	34	7	8	41	22	42	79	6	7	50	14	327
4:30 PM	12	35	9	15	38	16	34	78	17	11	59	9	333
4:45 PM	14	38	13	7	44	22	60	78	11	7	68	13	375
5:00 PM	10	48	15	14	35	32	45	79	14	9	63	6	370
5:15 PM	8	34	8	6	42	24	49	65	6	11	66	13	332
5:30 PM	10	41	7	7	41	21	52	56	12	3	75	8	333
5:45 PM	8	38	7	8	33	29	53	51	12	4	81	7	331
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 87	NT 298	NR 76	SL 73	ST 321	SR 182	EL 388	ET 567	ER 98	WL 62	WT 517	WR 83	TOTAL 2752

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	42	161	43	34	162	99	206	278	43	30	272	40	1410
PEAK HR. FACTOR:		0.842			0.910			0.884			0.950		0.940

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Whitson DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: TUESDAY PROJECT# 07-8129-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	1	1	1.5	0.5	1	1.5	0.5	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	25	30	0	3	31	0	4	45	30	6	40	2	216
7:15 AM	28	34	1	5	30	2	8	47	41	7	36	4	243
7:30 AM	22	44	0	6	26	1	10	43	47	5	50	7	261
7:45 AM	38	42	2	8	55	2	7	49	53	9	61	5	331
8:00 AM	40	37	0	11	23	7	4	67	50	17	61	7	324
8:15 AM	35	30	3	14	26	6	7	68	30	5	50	7	281
8:30 AM	38	39	0	14	39	2	6	67	41	4	50	4	304
8:45 AM	42	30	1	11	27	5	2	75	55	10	32	3	293
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	268	286	7	72	257	25	48	461	347	63	380	39	2253

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	151	148	5	47	143	17	24	251	174	35	222	23	1240
PEAK HR. FACTOR:		0.927			0.796			0.928			0.824		0.937

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Whitson DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: TUESDAY PROJECT# 07-8129-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	0	2	2	1	1	1.5	0.5	1	1.5	0.5	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	36	53	9	26	68	16	12	85	47	17	60	2	431
4:15 PM	65	42	7	16	69	12	9	88	40	15	74	3	440
4:30 PM	34	50	9	28	77	17	19	92	48	13	62	8	457
4:45 PM	29	54	11	23	59	11	11	77	35	12	94	1	417
5:00 PM	43	54	2	27	77	11	9	99	55	22	80	2	481
5:15 PM	25	56	0	15	75	10	13	86	67	23	71	4	445
5:30 PM	57	41	0	16	65	12	11	90	60	20	82	1	455
5:45 PM	42	43	1	17	54	14	12	81	61	30	85	2	442
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	331	393	39	168	544	103	96	698	413	152	608	23	3568

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	167	194	3	75	271	47	45	356	243	95	318	9	1823
PEAK HR. FACTOR:		0.919			0.854			0.970			0.902		0.948

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dewolf DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: THURSDAY PROJECT# 07-8129-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	1	3	1	0	0	2	13	1	0	8	1	30
7:15 AM	0	0	1	2	1	0	1	13	1	1	4	1	25
7:30 AM	0	1	0	5	2	0	1	16	0	2	4	2	33
7:45 AM	0	1	1	2	1	0	0	20	0	0	15	5	45
8:00 AM	0	0	3	1	0	1	0	16	1	0	12	4	38
8:15 AM	1	0	1	4	1	0	0	14	0	3	15	7	46
8:30 AM	1	1	3	3	0	0	0	21	0	1	18	5	53
8:45 AM	0	0	2	4	0	0	0	16	2	0	15	3	42
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	2	4	14	22	5	1	4	129	5	7	91	28	312

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	2	2	8	10	2	1	0	71	1	4	60	21	182
PEAK HR. FACTOR:		0.600			0.650			0.857			0.850		0.858

CONTROL: 2-WAY STOP (NS)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dewolf DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Floral DAY: THURSDAY PROJECT# 07-8129-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	1	0	2	1	1	2	27	2	4	25	4	69
4:15 PM	1	0	3	1	1	1	0	21	2	3	24	4	61
4:30 PM	2	1	0	2	0	0	1	30	0	0	27	4	67
4:45 PM	0	1	1	1	0	1	0	20	0	4	24	2	54
5:00 PM	3	0	1	2	1	0	0	21	0	1	20	1	50
5:15 PM	1	1	6	2	1	1	0	27	1	1	34	2	77
5:30 PM	1	0	4	1	1	0	0	23	1	4	39	4	78
5:45 PM	1	0	4	3	0	0	1	25	1	2	32	1	70
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	9	4	19	14	5	4	4	194	7	19	225	22	526

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	6	1	15	8	3	1	1	96	3	8	125	8	275
PEAK HR. FACTOR:		0.688			0.750			0.893			0.750		0.881

CONTROL: 2-WAY STOP (NS)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0	0.5	0	0	0	0	1	0	1	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1		1					27	0	3	41		73
7:15 AM	0		4					29	1	6	56		96
7:30 AM	3		6					27	4	5	73		118
7:45 AM	2		6					31	3	9	72		123
8:00 AM	4		1					49	1	7	55		117
8:15 AM	2		3					34	5	10	55		109
8:30 AM	2		5					38	2	4	47		98
8:45 AM	1		3					22	0	1	40		67
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	15	0	29	0	0	0	0	257	16	45	439	0	801

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	11	0	16	0	0	0	0	141	13	31	255	0	467
PEAK HR. FACTOR:		0.750			0.000			0.770			0.883		0.949

CONTROL: 1-WAY STOP SIGN (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0.5	0	0.5	0	0	0	0	1	0	1	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1		5					36	3	5	37		87
4:15 PM	3		2					35	3	7	24		74
4:30 PM	3		8					40	5	10	39		105
4:45 PM	6		3					49	4	3	27		92
5:00 PM	4		6					55	3	3	39		110
5:15 PM	1		2					72	2	6	36		119
5:30 PM	2		3					69	1	2	44		121
5:45 PM	2		1					75	1	2	22		103
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	22	0	30	0	0	0	0	431	22	38	268	0	811

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	9	0	12	0	0	0	0	271	7	13	141	0	453
PEAK HR. FACTOR:		0.525			0.000			0.914			0.837		0.936

CONTROL: 1-WAY STOP SIGN (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mc Call DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: WEDNESDAY PROJECT# 07-8129-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	6	18	2	5	18	8	11	19	1	5	39	8	140
7:15 AM	11	28	3	12	24	16	19	28	5	2	45	8	201
7:30 AM	12	35	9	11	25	17	22	19	2	3	56	16	227
7:45 AM	15	42	5	12	42	12	13	27	12	7	58	12	257
8:00 AM	18	50	8	15	42	14	17	35	7	9	51	11	277
8:15 AM	23	44	4	9	38	15	21	31	15	12	45	13	270
8:30 AM	17	39	6	11	41	15	14	24	8	6	34	10	225
8:45 AM	15	33	3	12	30	16	11	24	5	9	28	12	198
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	117	289	40	87	260	113	128	207	55	53	356	90	1795

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	68	171	26	47	147	58	73	112	36	31	210	52	1031
PEAK HR. FACTOR:		0.872			0.887			0.825			0.951		0.931

CONTROL: 4-WAY STOP

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mc Call DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: WEDNESDAY PROJECT# 07-8129-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	1	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	14	30	8	13	39	28	27	27	12	7	25	6	236
4:15 PM	15	43	9	10	42	37	26	22	20	6	21	8	259
4:30 PM	20	35	9	15	40	22	33	36	9	8	27	17	271
4:45 PM	10	52	9	16	37	22	18	40	14	10	19	8	255
5:00 PM	15	49	8	13	44	19	26	44	13	12	22	9	274
5:15 PM	19	44	11	11	34	26	21	62	12	9	30	10	289
5:30 PM	17	38	7	16	40	23	19	62	7	10	27	11	277
5:45 PM	14	39	10	12	32	23	15	66	7	6	25	8	257
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	124	330	71	106	308	200	185	359	94	68	196	77	2118

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	65	170	36	52	150	91	81	234	39	37	104	38	1097
PEAK HR. FACTOR:		0.916			0.927			0.932			0.913		0.949

CONTROL: 4-WAY STOP

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	7		9					23	2	15	38		94
7:15 AM	6		14					27	4	16	59		126
7:30 AM	7		12					25	3	14	75		136
7:45 AM	9		11					28	6	30	59		143
8:00 AM	6		19					37	4	32	54		152
8:15 AM	2		21					32	2	23	63		143
8:30 AM	4		20					21	1	21	47		114
8:45 AM	4		19					26	4	19	44		116
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	45	0	125	0	0	0	0	219	26	170	439	0	1024

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	24	0	63	0	0	0	0	122	15	99	251	0	574
PEAK HR. FACTOR:		0.870			0.000			0.835			0.983		0.944

CONTROL: NO SIGNAL

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: TUESDAY PROJECT# 07-8129-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5		20					41	17	34	35		152
4:15 PM	3		24					42	19	31	45		164
4:30 PM	9		22					60	18	33	32		174
4:45 PM	8		23					56	23	29	37		176
5:00 PM	10		26					65	22	43	36		202
5:15 PM	12		21					81	29	34	24		201
5:30 PM	7		36					72	16	28	27		186
5:45 PM	5		32					62	22	36	23		180
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 59	NT 0	NR 204	SL 0	ST 0	SR 0	EL 0	ET 479	ER 166	WL 268	WT 259	WR 0	TOTAL 1435

PM Peak Hr Begins at: 500 PM

PEAK VOLUMES =	34	0	115	0	0	0	0	280	89	141	110	0	769
PEAK HR. FACTOR:		0.866			0.000			0.839			0.794		0.952

CONTROL: NO SIGNAL

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Golden State DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: THURSDAY PROJECT# 07-8129-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	0	1	1	0	1	1	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	41	2	23	41	1	0	0	0	3	0	43	154
7:15 AM	2	53	2	29	33	2	0	0	0	4	0	60	185
7:30 AM	3	62	1	28	26	0	0	0	0	8	0	86	214
7:45 AM	2	80	7	27	58	0	0	1	1	8	0	63	247
8:00 AM	0	44	9	32	33	0	0	0	0	7	1	52	178
8:15 AM	2	54	3	30	38	1	0	1	0	6	1	55	191
8:30 AM	1	45	1	20	40	3	0	1	0	2	2	43	158
8:45 AM	1	36	7	22	38	1	1	1	1	6	0	38	152
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	11	415	32	211	307	8	1	4	2	44	4	440	1479

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	7	240	20	117	155	1	0	2	1	29	2	256	830
PEAK HR. FACTOR:		0.750			0.803			0.375			0.763		0.840

CONTROL: 2 way stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Golden State DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: THURSDAY PROJECT# 07-8129-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	2	1	1	2	1	0	1	1	0	1	1	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	52	11	38	98	0	1	0	2	3	1	34	243
4:15 PM	5	35	5	54	62	0	0	0	1	12	0	33	207
4:30 PM	0	64	11	57	102	3	1	1	1	6	1	33	280
4:45 PM	1	46	13	74	84	0	0	2	3	3	0	39	265
5:00 PM	1	45	15	72	101	1	2	1	1	6	0	40	285
5:15 PM	3	49	13	98	103	0	1	4	0	7	1	28	307
5:30 PM	1	40	12	80	66	0	1	3	0	8	0	30	241
5:45 PM	0	45	10	71	69	0	0	2	0	5	0	24	226
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 14	NT 376	NR 90	SL 544	ST 685	SR 4	EL 6	ET 13	ER 8	WL 50	WT 3	WR 261	TOTAL 2054

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	5	204	52	301	390	4	4	8	5	22	2	140	1137
PEAK HR. FACTOR:		0.870			0.864			0.850			0.891		0.926

CONTROL: 2 way stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: De wolf DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: THURSDAY PROJECT# 07-8129-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	0	0	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	4								1				5
7:15 AM	2								3				5
7:30 AM	5								7				12
7:45 AM	7								4				11
8:00 AM	5								2				7
8:15 AM	8								7				15
8:30 AM	6								4				10
8:45 AM	2								3				5
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	39	0	0	0	0	0	0	0	31	0	0	0	70

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	25	0	0	0	0	0	0	0	20	0	0	0	45
PEAK HR. FACTOR:		0.781			0.000			0.714			0.000		0.750

CONTROL: 1-WAY STOP SIGN (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: De wolf DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: THURSDAY PROJECT# 07-8129-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	0	0	0	1	0	0	0	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	5								2				7
4:15 PM	3								4				7
4:30 PM	4								3				7
4:45 PM	1								1				2
5:00 PM	5								4				9
5:15 PM	1								2				3
5:30 PM	2								0				2
5:45 PM	1								1				2
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	22	0	0	0	0	0	0	0	17	0	0	0	39

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	13	0	0	0	0	0	0	0	12	0	0	0	25
PEAK HR. FACTOR:		0.650			0.000			0.750			0.000		0.694

CONTROL: 1-WAY STOP SIGN (NB)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Temperance DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: WEDNESDAY PROJECT# 07-8129-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	1	0	0	0	2	0	1	0	0	0	0	4
7:15 AM	0	1	0	0	2	0	3	3	1	1	1	0	12
7:30 AM	0	0	1	1	3	0	0	5	2	0	3	2	17
7:45 AM	2	0	0	1	1	0	0	4	1	1	2	4	16
8:00 AM	1	1	0	0	5	4	0	2	1	0	4	1	19
8:15 AM	0	0	0	1	2	1	0	6	2	1	6	1	20
8:30 AM	1	0	0	1	1	3	2	2	2	0	5	1	18
8:45 AM	0	0	0	1	1	2	1	2	1	0	1	1	10
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	4	3	1	5	15	12	6	25	10	3	22	10	116

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	4	1	0	3	9	8	2	14	6	2	17	7	73
PEAK HR. FACTOR:		0.625			0.556			0.688			0.813		0.913

CONTROL: 4-Way Stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Temperance DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Dinuba DAY: WEDNESDAY PROJECT# 07-8129-004

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	0	1	0	0	1	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	1		1	0	1	0	1	1		5	0	10
4:15 PM	0	1		0	2	0	0	4	0		1	2	10
4:30 PM	1	1		0	0	0	0	3	0		3	1	9
4:45 PM	0	0		0	1	1	0	1	0		1	0	4
5:00 PM	0	0		3	3	0	0	1	0		4	1	12
5:15 PM	0	0		1	2	0	0	1	0		1	1	6
5:30 PM	0	0		4	0	1	0	0	0		1	1	7
5:45 PM	0	0		0	1	0	1	0	0		0	0	2
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 1	NT 3	NR 0	SL 9	ST 9	SR 3	EL 1	ET 11	ER 1	WL 0	WT 16	WR 6	TOTAL 60

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	1	2	0	3	6	1	0	9	0	0	9	4	35
PEAK HR. FACTOR:		0.375			0.417			0.563			0.650		0.729

CONTROL: 4-Way Stop

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Manning DAY: THURSDAY PROJECT# 07-8129-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	0	2	0	2	1	0	76	6	12	175	0	275
7:15 AM	3	1	5	1	0	2	0	84	4	9	151	0	260
7:30 AM	0	0	1	0	0	0	0	96	2	3	168	1	271
7:45 AM	2	0	1	1	2	1	1	90	3	4	213	0	318
8:00 AM	1	0	2	1	0	2	1	91	5	5	149	0	257
8:15 AM	1	0	1	0	1	0	0	97	4	7	141	0	252
8:30 AM	2	0	3	1	1	1	0	88	3	3	127	0	229
8:45 AM	1	0	4	0	0	3	0	76	3	1	104	1	193
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	11	1	19	4	6	10	2	698	30	44	1228	2	2055

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	6	1	9	2	4	4	1	346	15	28	707	1	1124
PEAK HR. FACTOR:		0.444			0.625			0.923			0.848		0.884

CONTROL: 2-WAY STOP SIGN (NS)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Del Rey DATE: 07/12/2007 LOCATION: City of Selma

E-W STREET: Manning DAY: THURSDAY PROJECT# 07-8129-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	1	2	0	1	1	0	162	2	5	107	0	284
4:15 PM	1	0	1	0	0	2	0	197	2	3	121	0	327
4:30 PM	5	0	6	1	0	1	0	199	1	0	120	3	336
4:45 PM	5	0	11	2	0	0	0	190	6	2	131	2	349
5:00 PM	7	0	16	0	0	1	0	231	2	1	136	0	394
5:15 PM	1	1	5	1	0	0	0	228	0	0	145	0	381
5:30 PM	4	0	6	0	0	1	0	212	0	1	131	0	355
5:45 PM	1	0	5	0	1	0	1	171	1	0	114	1	295
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 27	NT 2	NR 52	SL 4	ST 2	SR 6	EL 1	ET 1590	ER 14	WL 12	WT 1005	WR 6	TOTAL 2721

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	17	1	38	3	0	2	0	861	8	4	543	2	1479
PEAK HR. FACTOR:		0.609			0.625			0.932			0.947		0.938

CONTROL: 2-WAY STOP SIGN (NS)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mc Call DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Manning DAY: WEDNESDAY PROJECT# 07-8129-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	0	2	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	10	21	17	4	14	5	4	60	5	9	165	2	316
7:15 AM	23	14	16	2	20	10	4	68	13	17	137	5	329
7:30 AM	20	23	25	8	19	13	3	75	10	19	147	2	364
7:45 AM	11	19	15	3	40	8	7	68	10	16	188	6	391
8:00 AM	18	16	19	4	37	9	8	70	7	13	136	2	339
8:15 AM	23	18	11	4	32	13	8	85	9	11	122	5	341
8:30 AM	19	24	17	2	39	10	2	79	13	15	111	4	335
8:45 AM	16	23	12	2	30	9	6	64	7	17	90	1	277
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	140	158	132	29	231	77	42	569	74	117	1096	27	2692

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	72	76	70	19	128	43	26	298	36	59	593	15	1435
PEAK HR. FACTOR:		0.801			0.931			0.882			0.794		0.918

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Mc Call DATE: 07/11/2007 LOCATION: City of Selma

E-W STREET: Manning DAY: WEDNESDAY PROJECT# 07-8129-002

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	2	0	0	2	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	10	26	23	9	34	5	4	134	15	31	76	3	370
4:15 PM	11	31	30	9	43	8	8	161	20	38	83	3	445
4:30 PM	12	45	25	8	41	7	8	168	19	28	92	4	457
4:45 PM	13	52	19	7	38	6	9	170	17	22	109	4	466
5:00 PM	14	65	25	8	28	8	14	197	23	26	113	5	526
5:15 PM	17	48	22	8	36	5	11	199	20	23	114	8	511
5:30 PM	12	35	18	12	32	4	13	186	19	27	106	4	468
5:45 PM	13	30	20	9	24	2	10	146	14	21	92	6	387
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 102	NT 332	NR 182	SL 70	ST 276	SR 45	EL 77	ET 1361	ER 147	WL 216	WT 785	WR 37	TOTAL 3630

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	56	200	84	35	134	23	47	752	79	98	442	21	1971
PEAK HR. FACTOR:		0.817			0.941			0.938			0.967		0.937

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dewolf DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Manning DAY: TUESDAY PROJECT# 07-8129-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	0	0	0	0	1	3	64	1	1	179	0	251
7:15 AM	0	0	1	0	1	0	2	76	3	2	166	0	251
7:30 AM	0	0	1	0	0	2	0	88	2	1	181	1	276
7:45 AM	1	1	1	2	0	1	0	79	4	3	201	1	294
8:00 AM	0	0	0	1	1	2	1	85	3	1	157	0	251
8:15 AM	2	1	1	1	0	1	1	95	5	2	154	0	263
8:30 AM	3	2	1	3	1	2	4	89	2	4	134	1	246
8:45 AM	0	0	0	0	0	1	3	77	1	1	112	0	195
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	8	4	5	7	3	10	14	653	21	15	1284	3	2027

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	3	2	3	4	1	6	2	347	14	7	693	2	1084
PEAK HR. FACTOR:		0.500			0.688			0.899			0.856		0.922

CONTROL: 2-WAY STOP (NS)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Dewolf DATE: 07/10/2007 LOCATION: City of Selma

E-W STREET: Manning DAY: TUESDAY PROJECT# 07-8129-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	0	1	0	1	2	0	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	3	1	10	0	2	3	3	141	4	1	83	0	251
4:15 PM	2	3	13	2	0	2	1	166	0	1	95	1	286
4:30 PM	2	1	16	2	1	4	5	171	0	5	105	2	314
4:45 PM	3	0	11	0	1	6	2	188	3	2	119	2	337
5:00 PM	7	2	15	1	2	6	7	211	1	2	126	3	383
5:15 PM	5	1	21	0	3	3	4	207	2	3	121	4	374
5:30 PM	4	0	18	1	4	4	2	194	1	0	114	1	343
5:45 PM	4	0	14	3	5	3	2	152	0	1	101	3	288
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 30	NT 8	NR 118	SL 9	ST 18	SR 31	EL 26	ET 1430	ER 11	WL 15	WT 864	WR 16	TOTAL 2576

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	19	3	65	2	10	19	15	800	7	7	480	10	1437
PEAK HR. FACTOR:		0.806			0.861			0.938			0.948		0.938

CONTROL: 2-WAY STOP (NS)

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Golden State DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	2	15	2	7	12	9	4	93	7	0	77	6	234
7:15 AM	8	23	2	4	21	5	3	89	5	0	83	4	247
7:30 AM	2	34	2	13	18	7	6	115	6	0	83	6	292
7:45 AM	5	78	3	10	28	3	6	91	7	0	84	12	327
8:00 AM	5	52	1	5	22	2	9	61	9	5	78	9	258
8:15 AM	1	41	2	7	18	2	9	61	5	1	79	11	237
8:30 AM	4	28	2	3	19	12	2	39	5	1	80	5	200
8:45 AM	7	26	1	2	24	6	4	42	9	1	70	11	203
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 34	NT 297	NR 15	SL 51	ST 162	SR 46	EL 43	ET 591	ER 53	WL 8	WT 634	WR 64	TOTAL 1998

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	20	187	8	32	89	17	24	356	27	5	328	31	1124
PEAK HR. FACTOR:		0.625			0.841			0.801			0.948		0.859

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Golden State DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-005

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	7	49	1	17	41	4	4	110	11	2	83	0	329
4:15 PM	5	32	3	14	71	7	3	102	13	1	71	0	322
4:30 PM	6	55	2	17	44	5	8	111	21	3	96	18	386
4:45 PM	9	47	2	15	79	5	5	130	12	1	88	15	408
5:00 PM	4	31	2	18	64	14	5	104	15	3	105	13	378
5:15 PM	7	50	3	20	46	6	5	105	14	1	114	16	387
5:30 PM	9	32	3	12	66	4	8	93	11	5	160	27	430
5:45 PM	6	19	1	14	47	15	6	92	21	1	75	17	314
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 53	NT 315	NR 17	SL 127	ST 458	SR 60	EL 44	ET 847	ER 118	WL 17	WT 792	WR 106	TOTAL 2954

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	29	160	10	65	255	29	23	432	52	10	467	71	1603
PEAK HR. FACTOR:		0.829			0.881			0.862			0.714		0.932

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR 99 NB on-ramp DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0		10				19	94			33	52	208
7:15 AM	0		5				12	89			30	64	200
7:30 AM	5		5				7	115			29	60	221
7:45 AM	7		10				13	109			36	68	243
8:00 AM	5		7				10	68			25	66	181
8:15 AM	6		6				9	64			26	56	167
8:30 AM	5		3				12	46			36	56	158
8:45 AM	5		7				7	49			34	53	155
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 33	NT 0	NR 53	SL 0	ST 0	SR 0	EL 89	ET 634	ER 0	WL 0	WT 249	WR 475	TOTAL 1533

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	12	0	30	0	0	0	51	407	0	0	128	244	872
PEAK HR. FACTOR:		0.618			0.000			0.939			0.894		0.897

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR 99 NB on-ramp DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-001

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2		3				17	109			36	54	221
4:15 PM	4		3				13	125			29	41	215
4:30 PM	8		8				15	119			47	63	260
4:45 PM	4		12				18	158			49	61	302
5:00 PM	12		8				13	115			52	71	271
5:15 PM	7		8				10	118			41	85	269
5:30 PM	12		10				18	100			74	101	315
5:45 PM	10		7				5	115			48	47	232
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 59	NT 0	NR 59	SL 0	ST 0	SR 0	EL 109	ET 959	ER 0	WL 0	WT 376	WR 523	TOTAL 2085

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	35	0	38	0	0	0	59	491	0	0	216	318	1157
PEAK HR. FACTOR:		0.830			0.000			0.781			0.763		0.918

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR 99 SB on-ramp DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3		7	46	1	10		27	3	0	29		126
7:15 AM	0		14	49	3	26		31	2	0	27		152
7:30 AM	0		11	62	1	23		59	2	1	28		187
7:45 AM	2		16	77	1	19		55	2	1	35		208
8:00 AM	2		15	39	1	9		29	0	1	24		120
8:15 AM	1		12	36	1	15		12	1	1	19		98
8:30 AM	1		5	35	0	11		20	0	1	38		111
8:45 AM	1		9	44	0	11		13	3	5	28		114
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 10	NT 0	NR 89	SL 388	ST 8	SR 124	EL 0	ET 246	ER 13	WL 10	WT 228	WR 0	TOTAL 1116

AM Peak Hr Begins at: 700 AM

PEAK VOLUMES =	5	0	48	234	6	78	0	172	9	2	119	0	673
PEAK HR. FACTOR:		0.736			0.820			0.742			0.840		0.809

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR 99 SB on-ramp DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-003

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2		7	81	4	20		58	0	2	26		200
4:15 PM	2		13	75	0	9		44	2	2	25		172
4:30 PM	1		9	68	4	20		61	0	1	47		211
4:45 PM	5		14	59	2	15		91	3	2	45		236
5:00 PM	1		8	69	2	17		54	1	3	53		208
5:15 PM	1		13	72	3	22		39	0	1	40		191
5:30 PM	1		18	68	2	13		31	0	7	64		204
5:45 PM	1		12	73	3	15		31	2	4	44		185
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 14	NT 0	NR 94	SL 565	ST 20	SR 131	EL 0	ET 409	ER 8	WL 22	WT 344	WR 0	TOTAL 1607

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	8	0	44	268	11	74	0	245	4	7	185	0	846
PEAK HR. FACTOR:		0.684			0.910			0.662			0.857		0.896

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: McCall DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	6	9	1	2	1	2	15	2	8	15	0	61
7:15 AM	0	6	2	0	1	2	2	13	0	11	16	2	55
7:30 AM	3	9	10	3	7	3	1	28	2	6	26	1	99
7:45 AM	1	11	6	8	9	2	9	26	2	9	18	2	103
8:00 AM	2	3	2	2	6	1	3	26	2	4	20	3	74
8:15 AM	0	5	5	2	5	1	5	10	2	2	15	7	59
8:30 AM	0	4	6	1	4	3	1	13	3	5	18	1	59
8:45 AM	0	8	4	3	5	1	3	17	0	7	14	0	62
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 6	NT 52	NR 44	SL 20	ST 39	SR 14	EL 26	ET 148	ER 13	WL 52	WT 142	WR 16	TOTAL 572

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	6	28	23	15	27	7	18	90	8	21	79	13	335
PEAK HR. FACTOR:		0.648			0.645			0.784			0.856		0.813

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: McCall DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-006

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	2	19	16	5	8	5	3	27	2	8	16	8	119
4:15 PM	1	9	5	6	8	3	3	27	2	11	17	6	98
4:30 PM	2	24	26	2	14	8	6	28	2	3	30	6	151
4:45 PM	8	40	59	1	18	3	10	28	2	4	22	0	195
5:00 PM	1	18	13	6	8	4	4	28	2	5	32	4	125
5:15 PM	2	12	14	2	10	5	2	25	3	5	23	1	104
5:30 PM	1	13	12	4	15	3	5	25	3	5	32	7	125
5:45 PM	3	7	7	4	10	3	4	18	3	5	18	3	85
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 20	NT 142	NR 152	SL 30	ST 91	SR 34	EL 37	ET 206	ER 19	WL 46	WT 190	WR 35	TOTAL 1002

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	13	94	112	11	50	20	22	109	9	17	107	11	575
PEAK HR. FACTOR:		0.512			0.844			0.875			0.823		0.737

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Thompson DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	0	0	1	1	0	0	25	1	1	12	3	44
7:15 AM	0	0	0	1	0	0	0	12	0	2	13	5	33
7:30 AM	0	2	0	1	2	0	0	34	1	1	14	1	56
7:45 AM	1	2	1	1	3	1	2	36	0	2	20	0	69
8:00 AM	1	0	1	2	0	1	2	15	1	1	27	0	51
8:15 AM	0	0	0	4	1	0	1	24	0	0	20	0	50
8:30 AM	2	0	0	1	1	1	2	16	0	0	18	2	43
8:45 AM	0	0	1	0	0	1	0	13	0	0	20	1	36
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 4	NT 4	NR 3	SL 11	ST 8	SR 4	EL 7	ET 175	ER 3	WL 7	WT 144	WR 12	TOTAL 382

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	2	4	2	8	6	2	5	109	2	4	81	1	226
PEAK HR. FACTOR:		0.500			0.800			0.763			0.768		0.819

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Thompson DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-007

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	0	0	1	3	0	3	27	1	1	23	0	59
4:15 PM	0	5	1	1	2	0	4	36	1	1	31	1	83
4:30 PM	0	1	0	1	4	1	6	45	0	0	23	3	84
4:45 PM	0	6	0	0	6	1	3	42	0	1	25	4	88
5:00 PM	1	6	0	1	3	1	0	28	2	1	41	3	87
5:15 PM	1	3	0	0	4	5	4	34	0	1	24	2	78
5:30 PM	0	3	1	2	2	4	1	20	0	1	23	3	60
5:45 PM	0	2	1	2	3	3	3	20	0	6	27	2	69
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 2	NT 26	NR 3	SL 8	ST 27	SR 15	EL 24	ET 252	ER 4	WL 12	WT 217	WR 18	TOTAL 608

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	1	18	1	3	15	3	13	151	3	3	120	11	342
PEAK HR. FACTOR:		0.714			0.750			0.819			0.744		0.972

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	71	9	5	79	1	0	8	0	6	4	0	184
7:15 AM	1	114	5	2	73	3	7	6	0	5	6	2	224
7:30 AM	1	110	10	2	69	3	6	21	0	6	6	2	236
7:45 AM	2	76	6	5	61	2	4	21	1	5	10	1	194
8:00 AM	4	75	4	0	86	7	1	12	2	3	19	6	219
8:15 AM	0	86	9	2	80	1	5	10	1	9	10	4	217
8:30 AM	0	80	3	4	62	4	4	9	0	10	11	4	191
8:45 AM	0	67	4	2	59	2	2	7	0	7	8	4	162
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 9	NT 679	NR 50	SL 22	ST 569	SR 23	EL 29	ET 94	ER 4	WL 51	WT 74	WR 23	TOTAL 1627

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	8	375	25	9	289	15	18	60	3	19	41	11	873
PEAK HR. FACTOR:		0.843			0.841			0.750			0.634		0.925

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Mountain View DAY: WEDNESDAY PROJECT# 08-8069-008

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	0	89	5	10	87	10	8	13	1	13	9	0	245
4:15 PM	0	117	10	8	95	2	7	24	0	8	14	3	288
4:30 PM	1	141	18	10	100	8	5	22	0	13	13	0	331
4:45 PM	3	153	12	5	112	3	7	16	0	9	17	1	338
5:00 PM	1	94	11	12	92	14	4	5	1	13	23	6	276
5:15 PM	0	83	10	8	131	10	8	14	0	9	8	8	289
5:30 PM	0	116	9	3	105	6	8	8	3	11	13	5	287
5:45 PM	0	82	8	4	94	6	5	13	0	7	9	11	239
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 5	NT 875	NR 83	SL 60	ST 816	SR 59	EL 52	ET 115	ER 5	WL 83	WT 106	WR 34	TOTAL 2293

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	5	471	51	35	435	35	24	57	1	44	61	15	1234
PEAK HR. FACTOR:		0.784			0.847			0.759			0.714		0.913

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Whitson DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Second St DAY: WEDNESDAY PROJECT# 08-8069-022

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	15	21	3	4	20	4	5	60	4	3	40	1	180
7:15 AM	11	25	2	6	18	9	8	67	12	1	66	5	230
7:30 AM	16	33	5	10	32	3	9	85	15	8	77	4	297
7:45 AM	16	38	5	15	30	7	16	144	18	11	95	1	396
8:00 AM	16	34	9	14	11	10	12	117	13	15	92	15	358
8:15 AM	16	43	3	12	27	9	11	82	12	9	68	6	298
8:30 AM	17	37	8	13	27	6	8	66	11	12	90	6	301
8:45 AM	11	22	8	17	30	7	10	74	15	5	52	6	257
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 118	NT 253	NR 43	SL 91	ST 195	SR 55	EL 79	ET 695	ER 100	WL 64	WT 580	WR 44	TOTAL 2317

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	65	152	25	54	95	32	47	409	54	47	345	28	1353
PEAK HR. FACTOR:		0.976			0.870			0.716			0.861		0.854

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Whitson DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Second St DAY: WEDNESDAY PROJECT# 08-8069-022

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	29	55	7	11	36	22	14	102	20	17	97	12	422
4:15 PM	30	49	6	15	52	16	14	105	12	18	98	20	435
4:30 PM	41	61	6	20	52	18	19	109	13	20	83	9	451
4:45 PM	27	51	8	12	44	9	19	124	14	16	88	13	425
5:00 PM	27	41	7	13	54	8	11	93	10	26	95	24	409
5:15 PM	17	26	3	19	64	12	15	110	20	13	107	7	413
5:30 PM	9	42	3	17	56	15	11	108	5	20	88	10	384
5:45 PM	18	41	5	15	43	12	17	88	13	8	63	14	337
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 198	NT 366	NR 45	SL 122	ST 401	SR 112	EL 120	ET 839	ER 107	WL 138	WT 719	WR 109	TOTAL 3276

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	127	216	27	58	184	65	66	440	59	71	366	54	1733
PEAK HR. FACTOR:		0.856			0.853			0.900			0.903		0.961

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 NB Ramps DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Second St DAY: WEDNESDAY PROJECT# 08-8069-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3		13				9	58			29	29	141
7:15 AM	2		17				17	68			43	45	192
7:30 AM	2		24				32	88			52	47	245
7:45 AM	4		37				20	143			83	37	324
8:00 AM	6		29				11	117			84	23	270
8:15 AM	3		15				15	95			65	30	223
8:30 AM	4		11				10	74			66	28	193
8:45 AM	3		20				8	79			38	23	171
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	27	0	166	0	0	0	122	722	0	0	460	262	1759

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	15	0	105	0	0	0	78	443	0	0	284	137	1062
PEAK HR. FACTOR:		0.732			0.000			0.799			0.877		0.819

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 NB Ramps DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Second St DAY: WEDNESDAY PROJECT# 08-8069-016

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	14	0	20				10	105			100	22	271
4:15 PM	9	0	27				6	100			101	46	289
4:30 PM	5	0	38				8	105			106	43	305
4:45 PM	5	0	23				7	141			98	27	301
5:00 PM	8	0	30				7	86			99	38	268
5:15 PM	5	0	23				7	121			100	38	294
5:30 PM	8	0	25				8	100			90	24	255
5:45 PM	10	1	23				7	98			73	25	237
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 64	NT 1	NR 209	SL 0	ST 0	SR 0	EL 60	ET 856	ER 0	WL 0	WT 767	WR 263	TOTAL 2220

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	23	0	114	0	0	0	29	453	0	0	403	146	1168
PEAK HR. FACTOR:		0.797			0.000			0.814			0.921		0.957

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 SB Ramps DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Second St DAY: WEDNESDAY PROJECT# 08-8069-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM				24		3		43	1	13	20		104
7:15 AM				19		3		66	4	13	32		137
7:30 AM				26		8		94	4	10	44		186
7:45 AM				42		2		122	7	17	70		260
8:00 AM				31		4		97	3	12	78		225
8:15 AM				24		2		86	2	8	60		182
8:30 AM				26		12		58	5	14	56		171
8:45 AM				28		0		58	5	7	34		132
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 220	ST 0	SR 34	EL 0	ET 624	ER 31	WL 94	WT 394	WR 0	TOTAL 1397

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	0	0	0	123	0	16	0	399	16	47	252	0	853
PEAK HR. FACTOR:		0.000			0.790			0.804			0.831		0.820

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 SB Ramps DATE: 03/12/2008 LOCATION: City of Selma

E-W STREET: Second St DAY: WEDNESDAY PROJECT# 08-8069-017

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM				27		12		86	8	22	92		247
4:15 PM				33		14		72	7	22	88		236
4:30 PM				31		10		76	6	19	92		234
4:45 PM				58		8		94	9	22	83		274
5:00 PM				23		9		68	6	13	90		209
5:15 PM				41		16		87	6	25	80		255
5:30 PM				28		21		80	6	14	86		235
5:45 PM				29		12		75	6	16	67		205
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 0	SL 270	ST 0	SR 102	EL 0	ET 638	ER 54	WL 153	WT 678	WR 0	TOTAL 1895

PM Peak Hr Begins at: 400 PM

PEAK VOLUMES =	0	0	0	149	0	44	0	328	30	85	355	0	991
PEAK HR. FACTOR:		0.000			0.731			0.869			0.965		0.904

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Thompson DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 08-8069-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	3	5	2	2	3	0	0	18	3	3	6	1	46
7:15 AM	4	5	6	7	3	2	0	21	2	3	7	4	64
7:30 AM	8	12	5	10	5	1	1	35	6	4	20	4	111
7:45 AM	6	10	13	18	8	0	2	30	4	9	33	8	141
8:00 AM	7	3	8	16	11	2	1	40	2	3	39	6	138
8:15 AM	2	1	10	2	8	0	1	32	9	4	26	3	98
8:30 AM	4	4	8	2	2	0	1	15	2	10	24	1	73
8:45 AM	3	3	4	5	0	1	0	30	1	5	12	3	67
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 37	NT 43	NR 56	SL 62	ST 40	SR 6	EL 6	ET 221	ER 29	WL 41	WT 167	WR 30	TOTAL 738

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	23	26	36	46	32	3	5	137	21	20	118	21	488
PEAK HR. FACTOR:		0.733			0.698			0.948			0.795		0.865

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Thompson DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 08-8069-010

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	6	5	6	6	3	4	0	25	4	13	39	2	113
4:15 PM	15	10	7	3	8	1	2	44	4	9	49	1	153
4:30 PM	7	6	13	3	5	0	3	37	5	18	43	5	145
4:45 PM	9	12	12	8	9	1	4	43	9	10	29	0	146
5:00 PM	11	9	16	1	2	1	4	40	17	14	48	6	169
5:15 PM	5	12	8	7	6	4	1	33	6	16	31	2	131
5:30 PM	13	10	11	3	5	0	3	33	7	13	36	6	140
5:45 PM	16	11	9	2	6	3	5	35	9	16	34	2	148
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 82	NT 75	NR 82	SL 33	ST 44	SR 14	EL 22	ET 290	ER 61	WL 109	WT 309	WR 24	TOTAL 1145

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	42	37	48	15	24	3	13	164	35	51	169	12	613
PEAK HR. FACTOR:		0.882			0.583			0.869			0.853		0.907

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 08-8069-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	1	76	6	5	87	4	4	10	2	2	4	10	211
7:15 AM	2	111	9	5	73	8	7	9	2	4	3	7	240
7:30 AM	0	101	6	6	64	9	8	9	1	5	14	7	230
7:45 AM	1	83	12	3	67	10	14	19	1	2	17	9	238
8:00 AM	1	68	12	6	77	15	19	19	1	8	15	9	250
8:15 AM	3	86	11	6	71	6	14	13	2	7	15	5	239
8:30 AM	3	86	2	7	67	9	11	7	3	10	6	11	222
8:45 AM	3	70	12	6	62	5	11	13	0	7	9	7	205
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	14	681	70	44	568	66	88	99	12	45	83	65	1835

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	4	363	39	20	281	42	48	56	5	19	49	32	958
PEAK HR. FACTOR:		0.832			0.875			0.699			0.781		0.958

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Nebraska DAY: THURSDAY PROJECT# 08-8069-009

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1	103	6	14	98	5	7	14	2	14	17	11	292
4:15 PM	0	119	11	10	110	10	10	20	1	8	23	23	345
4:30 PM	3	142	19	10	111	9	10	17	5	14	19	13	372
4:45 PM	4	150	16	15	105	12	9	17	2	9	19	16	374
5:00 PM	3	101	16	22	88	14	7	19	5	15	27	16	333
5:15 PM	5	101	13	16	139	15	13	17	1	13	17	10	360
5:30 PM	0	119	10	11	99	15	16	10	3	14	18	17	332
5:45 PM	5	94	12	15	75	17	19	15	2	13	26	15	308
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 21	NT 929	NR 103	SL 113	ST 825	SR 97	EL 91	ET 129	ER 21	WL 100	WT 166	WR 121	TOTAL 2716

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	15	494	64	63	443	50	39	70	13	51	82	55	1439
PEAK HR. FACTOR:		0.843			0.818			0.953			0.810		0.962

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Rose DAY: THURSDAY PROJECT# 08-8069-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	0	87	1	8	89	1	1	1	1	2	1	17	209
7:15 AM	3	118	2	10	78	0	0	1	2	4	1	30	249
7:30 AM	1	119	5	14	78	2	4	8	0	4	1	34	270
7:45 AM	0	90	7	15	73	2	0	3	3	6	1	36	236
8:00 AM	0	100	5	17	95	1	1	1	0	2	3	22	247
8:15 AM	0	103	5	10	80	4	0	1	0	1	3	23	230
8:30 AM	2	89	8	9	78	1	2	0	0	4	2	28	223
8:45 AM	2	84	3	17	71	2	1	1	0	3	1	9	194
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 8	NT 790	NR 36	SL 100	ST 642	SR 13	EL 9	ET 16	ER 6	WL 26	WT 13	WR 199	TOTAL 1858

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	4	427	19	56	324	5	5	13	5	16	6	122	1002
PEAK HR. FACTOR:		0.900			0.852			0.479			0.837		0.928

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Rose DAY: THURSDAY PROJECT# 08-8069-018

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	1	123	10	29	110	2	3	0	1	1	3	28	311
4:15 PM	0	130	6	19	125	5	1	5	1	2	3	13	310
4:30 PM	1	130	3	29	134	3	0	2	2	4	7	27	342
4:45 PM	3	190	12	31	108	3	1	3	2	4	4	21	382
5:00 PM	1	124	5	32	95	3	1	4	1	4	4	19	293
5:15 PM	2	116	11	38	147	1	1	3	1	8	9	22	359
5:30 PM	3	146	12	35	100	3	2	3	1	5	1	23	334
5:45 PM	0	92	6	33	80	3	0	8	1	2	3	20	248
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 11	NT 1051	NR 65	SL 246	ST 899	SR 23	EL 9	ET 28	ER 10	WL 30	WT 34	WR 173	TOTAL 2579

PM Peak Hr Begins at: 430 PM

PEAK VOLUMES =	7	560	31	130	484	10	3	12	6	20	24	89	1376
PEAK HR. FACTOR:		0.729			0.839			0.875			0.853		0.901

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: SR-99 SB On/Off Ramp DAY: THURSDAY PROJECT# 08-8069-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM		111	9	26	33				70				249
7:15 AM		162	3	20	45				59				289
7:30 AM		145	1	39	41				68				294
7:45 AM		161	7	33	53				68				322
8:00 AM		126	7	27	58				65				283
8:15 AM		97	4	21	61				67				250
8:30 AM		109	7	25	59				104				304
8:45 AM		111	7	31	42				67				258
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 1022	NR 45	SL 222	ST 392	SR 0	EL 0	ET 0	ER 568	WL 0	WT 0	WR 0	TOTAL 2249

AM Peak Hr Begins at: 715 AM

PEAK VOLUMES =	0	594	18	119	197	0	0	0	260	0	0	0	1188
PEAK HR. FACTOR:		0.911			0.919			0.956			0.000		0.922

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: SR-99 SB On/Off Ramp DAY: THURSDAY PROJECT# 08-8069-014

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
LANES:	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM		165	5	31	62				98				361
4:15 PM		163	6	29	72				93				363
4:30 PM		189	7	38	81				76				391
4:45 PM		207	7	42	56				89				401
5:00 PM		177	10	50	65				86				388
5:15 PM		149	15	34	74				130				402
5:30 PM		185	7	49	62				100				403
5:45 PM		124	15	36	57				78				310
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 1359	NR 72	SL 309	ST 529	SR 0	EL 0	ET 0	ER 750	WL 0	WT 0	WR 0	TOTAL 3019

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	718	39	175	257	0	0	0	405	0	0	0	1594
PEAK HR. FACTOR:		0.884			0.939			0.779			0.000		0.989

CONTROL:

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 NB off-ramp DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Floral Ave DAY: THURSDAY PROJECT# 08-8069-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	2	0	0	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	10	0	9	0		8	5	44	8		95	5	184
7:15 AM	18	0	5	3		6	1	70	5		94	5	207
7:30 AM	13	0	17	6		10	0	97	6		131	7	287
7:45 AM	35	0	19	2		10	0	124	9		124	7	330
8:00 AM	24	1	16	10		7	0	89	1		139	5	292
8:15 AM	12	0	9	9		11	4	90	4		146	8	293
8:30 AM	23	0	11	7		12	1	72	1		117	7	251
8:45 AM	21	1	13	3		15	3	83	4		82	8	233
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	156	2	99	40	0	79	14	669	38	0	928	52	2077

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	84	1	61	27	0	38	4	400	20	0	540	27	1202
PEAK HR. FACTOR:		0.676			0.813			0.797			0.920		0.911

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 NB off-ramp DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Floral Ave DAY: THURSDAY PROJECT# 08-8069-011

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	1	0	1	0	0	0	0	2	0	0	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	23	1	20	6		15	0	179	17		156	5	422
4:15 PM	33	2	14	6		18	4	171	10		183	11	452
4:30 PM	39	1	17	3		11	2	165	13		181	4	436
4:45 PM	39	0	13	1		3	3	162	12		176	10	419
5:00 PM	35	0	17	7		9	4	187	9		205	2	475
5:15 PM	39	0	12	7		10	3	215	14		120	3	423
5:30 PM	31	0	27	8		4	1	163	8		161	2	405
5:45 PM	30	1	19	6		10	2	182	4		150	5	409
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 269	NT 5	NR 139	SL 44	ST 0	SR 80	EL 19	ET 1424	ER 87	WL 0	WT 1332	WR 42	TOTAL 3441

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	146	3	61	17	0	41	13	685	44	0	745	27	1782
PEAK HR. FACTOR:		0.921			0.604			0.928			0.932		0.938

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Floral Ave DAY: THURSDAY PROJECT# 08-8069-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	1	2	2	1	2	1	2	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM	6	17	14	2	36	31	15	41	5	18	82	9	276
7:15 AM	11	27	20	2	36	29	15	55	7	21	78	23	324
7:30 AM	9	30	19	6	31	47	20	78	19	30	104	19	412
7:45 AM	9	31	23	8	49	33	18	103	9	26	114	27	450
8:00 AM	10	29	21	8	47	29	17	63	10	27	119	24	404
8:15 AM	11	20	19	7	51	35	15	68	9	22	111	31	399
8:30 AM	9	28	14	6	48	41	14	56	11	24	103	25	379
8:45 AM	10	24	11	8	34	37	17	70	12	25	74	19	341
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	75	206	141	47	332	282	131	534	82	193	785	177	2985

AM Peak Hr Begins at: 730 AM

PEAK VOLUMES =	39	110	82	29	178	144	70	312	47	105	448	101	1665
PEAK HR. FACTOR:		0.917			0.944			0.825			0.962		0.925

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: Highland DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Floral Ave DAY: THURSDAY PROJECT# 08-8069-012

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	2	2	1	1	2	2	1	2	1	2	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM	18	25	22	19	51	49	59	155	15	28	134	31	606
4:15 PM	33	29	17	14	46	46	55	153	24	29	167	40	653
4:30 PM	32	25	22	25	46	50	57	133	34	40	143	47	654
4:45 PM	32	34	16	12	46	54	67	149	29	22	151	40	652
5:00 PM	22	32	30	23	55	39	47	146	31	31	168	45	669
5:15 PM	19	23	21	19	40	42	62	193	28	40	106	27	620
5:30 PM	20	34	25	10	35	42	46	137	34	42	124	28	577
5:45 PM	15	18	28	16	31	65	35	144	34	28	141	24	579
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	191	220	181	138	350	387	428	1210	229	260	1134	282	5010

PM Peak Hr Begins at: 415 PM

PEAK VOLUMES =	119	120	85	74	193	189	226	581	118	122	629	172	2628
PEAK HR. FACTOR:		0.964			0.942			0.944			0.946		0.982

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 SB off-ramp DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Floral Ave DAY: THURSDAY PROJECT# 08-8069-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	2	1	1	0	2	1	1	2	0	
6:00 AM													
6:15 AM													
6:30 AM													
6:45 AM													
7:00 AM			12	33	7	11		16	2	6	31		118
7:15 AM			4	40	4	6		33	2	3	24		116
7:30 AM			13	57	6	8		47	1	7	31		170
7:45 AM			10	71	2	13		49	4	6	35		190
8:00 AM			14	44	11	5		31	10	10	42		167
8:15 AM			11	37	12	14		44	5	5	64		192
8:30 AM			11	26	7	12		44	12	8	50		170
8:45 AM			14	34	2	17		52	9	12	48		188
9:00 AM													
9:15 AM													
9:30 AM													
9:45 AM													
10:00 AM													
10:15 AM													
10:30 AM													
10:45 AM													
11:00 AM													
11:15 AM													
11:30 AM													
11:45 AM													
TOTAL VOLUMES =	NL 0	NT 0	NR 89	SL 342	ST 51	SR 86	EL 0	ET 316	ER 45	WL 57	WT 325	WR 0	TOTAL 1311

AM Peak Hr Begins at: 745 AM

PEAK VOLUMES =	0	0	46	178	32	44	0	168	31	29	191	0	719
PEAK HR. FACTOR:		0.821			0.738			0.888			0.797		0.936

CONTROL: Signalized

Intersection Turning Movement

Prepared by:

National Data & Surveying Services

N-S STREET: SR-99 SB off-ramp DATE: 03/13/2008 LOCATION: City of Selma

E-W STREET: Floral Ave DAY: THURSDAY PROJECT# 08-8069-013

	NORTHBOUND			SOUTHBOUND			EASTBOUND			WESTBOUND			
	NL	NT	NR	SL	ST	SR	EL	ET	ER	WL	WT	WR	TOTAL
LANES:	0	1	0	2	1	1	0	2	1	1	2	0	
1:00 PM													
1:15 PM													
1:30 PM													
1:45 PM													
2:00 PM													
2:15 PM													
2:30 PM													
2:45 PM													
3:00 PM													
3:15 PM													
3:30 PM													
3:45 PM													
4:00 PM			46	53	15	18		130	16	21	106		405
4:15 PM			50	66	14	17		117	21	25	125		435
4:30 PM			46	48	9	25		130	14	13	118		403
4:45 PM			36	97	16	27		114	19	26	133		468
5:00 PM			44	59	17	22		119	18	32	119		430
5:15 PM			58	103	16	30		123	20	25	96		471
5:30 PM			46	84	8	25		87	24	36	103		413
5:45 PM			40	68	13	30		100	17	34	103		405
6:00 PM													
6:15 PM													
6:30 PM													
6:45 PM													
TOTAL VOLUMES =	NL 0	NT 0	NR 366	SL 578	ST 108	SR 194	EL 0	ET 920	ER 149	WL 212	WT 903	WR 0	TOTAL 3430

PM Peak Hr Begins at: 445 PM

PEAK VOLUMES =	0	0	184	343	57	104	0	443	81	119	451	0	1782
PEAK HR. FACTOR:		0.793			0.846			0.916			0.896		0.946

CONTROL: Signalized

APPENDIX C

INTERSECTION ANALYSIS SHEETS

Existing Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	347	14	7	693	2	3	2	3	4	1	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	377	15	8	753	2	3	2	3	4	1	7
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	765			402			808	1180	216	987	1186	398
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	765			402			808	1180	216	987	1186	398
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	99	100	98	99	99
cM capacity (veh/h)	837			1143			258	184	775	192	182	592

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	2	251	141	8	502	253	9	12
Volume Left	2	0	0	8	0	0	3	4
Volume Right	0	0	15	0	0	2	3	7
cSH	837	1700	1700	1143	1700	1700	304	302
Volume to Capacity	0.00	0.15	0.08	0.01	0.30	0.15	0.03	0.04
Queue Length 95th (ft)	0	0	0	1	0	0	2	3
Control Delay (s)	9.3	0.0	0.0	8.2	0.0	0.0	17.2	17.4
Lane LOS	A			A			C	C
Approach Delay (s)	0.1			0.1			17.2	17.4
Approach LOS							C	C

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	32.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	1.00		1.00	0.93		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3471		1770	3524		1770	1714		1762	1784	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3471		1770	3524		1770	1714		1762	1784	
Volume (vph)	26	298	36	59	593	15	72	76	70	19	128	43
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	324	39	64	645	16	78	83	76	21	139	47
RTOR Reduction (vph)	0	10	0	0	2	0	0	37	0	0	15	0
Lane Group Flow (vph)	28	353	0	64	659	0	78	122	0	21	171	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	15.9		3.5	17.4		3.9	16.8		0.9	13.8	
Effective Green, g (s)	2.0	16.4		3.5	17.9		3.9	17.3		0.9	14.3	
Actuated g/C Ratio	0.04	0.30		0.06	0.33		0.07	0.32		0.02	0.26	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	65	1052		115	1166		128	548		29	472	
v/s Ratio Prot	0.02	0.10		c0.04	c0.19		c0.04	c0.07		0.01	c0.10	
v/s Ratio Perm												
v/c Ratio	0.43	0.34		0.56	0.57		0.61	0.22		0.72	0.36	
Uniform Delay, d1	25.5	14.6		24.5	14.9		24.4	13.5		26.5	16.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	0.2		5.7	0.6		8.0	0.2		61.8	0.5	
Delay (s)	30.0	14.8		30.3	15.5		32.3	13.7		88.3	16.7	
Level of Service	C	B		C	B		C	B		F	B	
Approach Delay (s)		15.9			16.8			19.8			23.9	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	18.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	54.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Sign Control		Free			Free	Stop	
Grade		0%			0%	0%	
Volume (veh/h)	0	346	15	28	707	6	9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	376	16	30	768	7	10
Pedestrians		10			10	10	
Lane Width (ft)		8.0			12.0	12.0	
Walking Speed (ft/s)		4.0			4.0	4.0	
Percent Blockage		1			1	1	
Right turn flare (veh)							
Median type						None	
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked	0.00						
vC, conflicting volume	0			402		849	216
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	0			402		849	216
tC, single (s)	0.0			4.1		6.8	6.9
tC, 2 stage (s)							
tF (s)	0.0			2.2		3.5	3.3
p0 queue free %	0			97		98	99
cM capacity (veh/h)	0			1143		288	775

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	251	142	0	30	384	384	16
Volume Left	0	0	0	30	0	0	7
Volume Right	0	16	0	0	0	0	10
cSH	1700	1700	1700	1143	1700	1700	462
Volume to Capacity	0.15	0.08	0.00	0.03	0.23	0.23	0.04
Queue Length 95th (ft)	0	0	0	2	0	0	3
Control Delay (s)	0.0	0.0	0.0	8.2	0.0	0.0	13.1
Lane LOS				A			B
Approach Delay (s)	0.0			0.3			13.1
Approach LOS							B

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	2	14	6	2	17	7	4	1	1	3	9	8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	15	7	2	18	8	4	1	1	3	10	9
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	36			32			83	73	38	71	73	42
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	36			32			83	73	38	71	73	42
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	100	100	99	99
cM capacity (veh/h)	1562			1567			860	801	1016	890	802	1011

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	24	28	7	22
Volume Left	2	2	4	3
Volume Right	7	8	1	9
cSH	1562	1567	872	889
Volume to Capacity	0.00	0.00	0.01	0.02
Queue Length 95th (ft)	0	0	1	2
Control Delay (s)	0.7	0.6	9.2	9.2
Lane LOS	A	A	A	A
Approach Delay (s)	0.7	0.6	9.2	9.2
Approach LOS			A	A

Intersection Summary			
Average Delay	3.6		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	2	1	29	2	256	7	240	20	117	155	1
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
Hourly flow rate (vph)	1	2	1	33	2	291	8	273	23	133	176	1
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	906	773	108	676	763	168	187			305		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	906	773	108	676	763	168	187			305		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	99	99	100	89	99	65	99			89		
cM capacity (veh/h)	133	286	910	299	290	833	1373			1242		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	3	1	326	8	182	114	133	88	88	1
Volume Left	1	0	33	8	0	0	133	0	0	0
Volume Right	0	1	291	0	0	23	0	0	0	1
cSH	207	910	698	1373	1700	1700	1242	1700	1700	1700
Volume to Capacity	0.02	0.00	0.47	0.01	0.11	0.07	0.11	0.05	0.05	0.00
Queue Length 95th (ft)	1	0	62	0	0	0	9	0	0	0
Control Delay (s)	22.7	9.0	14.6	7.6	0.0	0.0	8.2	0.0	0.0	0.0
Lane LOS	C	A	B	A			A			
Approach Delay (s)	19.3		14.6	0.2			3.5			
Approach LOS	C		B							

Intersection Summary			
Average Delay	6.4		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	122	15	99	251	24	63
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	130	16	105	267	26	67
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			156		635	158
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			156		635	158
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			93		94	92
cM capacity (veh/h)			1412		403	873

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	146	372	93
Volume Left	0	105	26
Volume Right	16	0	67
cSH	1700	1412	660
Volume to Capacity	0.09	0.07	0.14
Queue Length 95th (ft)	0	6	12
Control Delay (s)	0.0	2.7	11.3
Lane LOS		A	B
Approach Delay (s)	0.0	2.7	11.3
Approach LOS			B

Intersection Summary			
Average Delay	3.4		
Intersection Capacity Utilization	45.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	73	112	36	31	210	52	68	171	26	47	147	58
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
Hourly flow rate (vph)	78	120	39	33	226	56	73	184	28	51	158	62

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total (vph)	238	315	257	28	271
Volume Left (vph)	78	33	73	0	51
Volume Right (vph)	39	56	0	28	62
Hadj (s)	0.00	-0.05	0.18	-0.67	-0.07
Departure Headway (s)	6.5	6.2	7.0	6.2	6.4
Degree Utilization, x	0.43	0.55	0.50	0.05	0.48
Capacity (veh/h)	493	535	472	531	503
Control Delay (s)	14.2	16.5	15.7	8.3	15.3
Approach Delay (s)	14.2	16.5	15.0		15.3
Approach LOS	B	C	B		C

Intersection Summary			
Delay	15.3		
HCM Level of Service	C		
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	16	177	0	0	274	4	0	0	0	3	0	8
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
Hourly flow rate (vph)	17	188	0	0	291	4	0	0	0	3	0	9
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	306			198			544	538	208	536	536	314
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	306			198			544	538	208	536	536	314
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	99	100	99
cM capacity (veh/h)	1245			1363			427	436	818	438	437	715

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	205	296	0	12
Volume Left	17	0	0	3
Volume Right	0	4	0	9
cSH	1245	1363	1700	609
Volume to Capacity	0.01	0.00	0.00	0.02
Queue Length 95th (ft)	1	0	0	1
Control Delay (s)	0.8	0.0	0.0	11.0
Lane LOS	A		A	B
Approach Delay (s)	0.8	0.0	0.0	11.0
Approach LOS			A	B

Intersection Summary			
Average Delay	0.6		
Intersection Capacity Utilization	35.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	148	31	13	266	25	14
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	161	34	14	289	27	15
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			205		515	198
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			205		515	198
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		95	98
cM capacity (veh/h)			1356		506	829

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	195	303	42
Volume Left	0	14	27
Volume Right	34	0	15
cSH	1700	1356	588
Volume to Capacity	0.11	0.01	0.07
Queue Length 95th (ft)	0	1	6
Control Delay (s)	0.0	0.5	11.6
Lane LOS		A	B
Approach Delay (s)	0.0	0.5	11.6
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	37.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	8	154	259	1	2	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	167	282	1	2	22
Pedestrians		10	10		10	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	293				487	302
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	293				487	302
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	97
cM capacity (veh/h)	1258				527	725

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	176	283	24
Volume Left	9	0	2
Volume Right	0	1	22
cSH	1258	1700	701
Volume to Capacity	0.01	0.17	0.03
Queue Length 95th (ft)	1	0	3
Control Delay (s)	0.4	0.0	10.3
Lane LOS	A		B
Approach Delay (s)	0.4	0.0	10.3
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	27.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	141	13	31	255	11	16
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	150	14	33	271	12	17
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			174		514	177
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			174		514	177
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		98	98
cM capacity (veh/h)			1391		500	852

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	164	304	29
Volume Left	0	33	12
Volume Right	14	0	17
cSH	1700	1391	662
Volume to Capacity	0.10	0.02	0.04
Queue Length 95th (ft)	0	2	3
Control Delay (s)	0.0	1.0	10.7
Lane LOS		A	B
Approach Delay (s)	0.0	1.0	10.7
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	41.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	71	1	4	60	21	2	2	8	10	2	1
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
Hourly flow rate (vph)	0	81	1	5	68	24	2	2	9	11	2	1
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	102			92			193	202	101	201	191	100
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	102			92			193	202	101	201	191	100
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	99	98	100	100
cM capacity (veh/h)	1478			1490			740	680	938	725	690	940

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	82	97	14	15
Volume Left	0	5	2	11
Volume Right	1	24	9	1
cSH	1478	1490	847	732
Volume to Capacity	0.00	0.00	0.02	0.02
Queue Length 95th (ft)	0	0	1	2
Control Delay (s)	0.0	0.4	9.3	10.0
Lane LOS		A	A	B
Approach Delay (s)	0.0	0.4	9.3	10.0
Approach LOS			A	B

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	22.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95				1.00	0.97	1.00	1.00
Frpb, ped/bikes		1.00	0.97	1.00	1.00				0.98	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	0.99	1.00				1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00				0.86	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00				1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1538	1758	3539				1583	3433	1863	1538
Flt Permitted		1.00	1.00	0.95	1.00				1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1538	1758	3539				1583	3433	1863	1538
Volume (vph)	0	168	31	29	191	0	0	0	46	178	32	44
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	0	181	33	31	205	0	0	0	49	191	34	47
RTOR Reduction (vph)	0	0	27	0	0	0	0	0	33	0	0	21
Lane Group Flow (vph)	0	181	6	31	205	0	0	0	16	191	34	26
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			Perm	Prot					custom	Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		8.7	8.7	0.8	13.5				15.4	6.8	26.2	26.2
Effective Green, g (s)		9.2	9.2	0.8	14.0				15.9	6.8	26.7	26.7
Actuated g/C Ratio		0.19	0.19	0.02	0.29				0.33	0.14	0.55	0.55
Clearance Time (s)		4.5	4.5	4.0	4.5				4.5	4.0	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0				3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		669	291	29	1017				517	479	1021	843
v/s Ratio Prot		c0.05		c0.02	0.06					c0.06	c0.02	
v/s Ratio Perm			0.00						0.01			0.02
v/c Ratio		0.27	0.02	1.07	0.20				0.03	0.40	0.03	0.03
Uniform Delay, d1		16.9	16.1	24.0	13.1				11.2	19.1	5.1	5.1
Progression Factor		1.00	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Incremental Delay, d2		0.2	0.0	189.0	0.1				0.0	0.5	0.0	0.0
Delay (s)		17.1	16.1	213.0	13.2				11.2	19.6	5.1	5.1
Level of Service		B	B	F	B				B	B	A	A
Approach Delay (s)		16.9			39.5			11.2			15.3	
Approach LOS		B			D			B			B	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.18		
Actuated Cycle Length (s)	48.7	Sum of lost time (s)	12.0
Intersection Capacity Utilization	33.9%	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												
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	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	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	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1556	3433	3423		3433	3539	1556	1770	3539	2739
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1556	3433	3423		3433	3539	1556	1770	3539	2739
Volume (vph)	70	312	47	105	448	101	39	110	82	29	178	144
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	75	335	51	113	482	109	42	118	88	31	191	155
RTOR Reduction (vph)	0	0	35	0	21	0	0	0	67	0	0	118
Lane Group Flow (vph)	75	335	16	113	570	0	42	118	21	31	191	37
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	4.0	14.8	14.8	3.7	14.5		1.8	10.8	10.8	2.0	11.0	11.0
Effective Green, g (s)	4.0	15.3	15.3	3.7	15.0		1.8	11.3	11.3	2.0	11.5	11.5
Actuated g/C Ratio	0.08	0.32	0.32	0.08	0.31		0.04	0.23	0.23	0.04	0.24	0.24
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	147	1121	493	263	1063		128	828	364	73	843	652
v/s Ratio Prot	c0.04	0.09		0.03	c0.17		0.01	0.03		c0.02	c0.05	
v/s Ratio Perm			0.01						0.01			0.01
v/c Ratio	0.51	0.30	0.03	0.43	0.54		0.33	0.14	0.06	0.42	0.23	0.06
Uniform Delay, d1	21.2	12.5	11.4	21.3	13.8		22.7	14.7	14.4	22.6	14.8	14.2
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.0	0.2	0.0	1.1	0.5		1.5	0.1	0.1	3.9	0.1	0.0
Delay (s)	24.2	12.6	11.4	22.4	14.3		24.2	14.7	14.4	26.5	15.0	14.2
Level of Service	C	B	B	C	B		C	B	B	C	B	B
Approach Delay (s)		14.4			15.6			16.2			15.6	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.94	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	3509			3539	1697	
Flt Permitted	1.00			1.00	0.97	
Satd. Flow (perm)	3509			3539	1697	
Volume (vph)	400	20	0	540	84	61
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	435	22	0	587	91	66
RTOR Reduction (vph)	6	0	0	0	44	0
Lane Group Flow (vph)	451	0	0	587	113	0
Confl. Peds. (#/hr)		10	10		10	10
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	12.1			12.1	9.5	
Effective Green, g (s)	12.6			12.6	10.0	
Actuated g/C Ratio	0.41			0.41	0.33	
Clearance Time (s)	4.5			4.5	4.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1445			1457	555	
v/s Ratio Prot	0.13			c0.17	c0.07	
v/s Ratio Perm						
v/c Ratio	0.31			0.40	0.20	
Uniform Delay, d1	6.1			6.3	7.4	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.1			0.2	0.2	
Delay (s)	6.2			6.5	7.6	
Level of Service	A			A	A	
Approach Delay (s)	6.2			6.5	7.6	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	6.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	30.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.3%	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												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.94		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1763	3298		1770	3483		3433	3539	1556	1770	3539	1556
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1763	3298		1770	3483		3433	3539	1556	1770	3539	1556
Volume (vph)	24	251	174	35	222	23	151	148	5	47	143	17
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	26	270	187	38	239	25	162	159	5	51	154	18
RTOR Reduction (vph)	0	139	0	0	9	0	0	0	3	0	0	13
Lane Group Flow (vph)	26	318	0	38	255	0	162	159	2	51	154	5
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	0.8	12.1		2.1	13.4		5.8	16.0	16.0	2.2	12.4	12.4
Effective Green, g (s)	0.8	12.6		2.1	13.9		5.8	16.5	16.5	2.2	12.9	12.9
Actuated g/C Ratio	0.02	0.26		0.04	0.28		0.12	0.33	0.33	0.04	0.26	0.26
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	29	841		75	980		403	1182	520	79	924	406
v/s Ratio Prot	0.01	c0.10		c0.02	0.07		c0.05	c0.04		0.03	c0.04	
v/s Ratio Perm									0.00			0.00
v/c Ratio	0.90	0.38		0.51	0.26		0.40	0.13	0.00	0.65	0.17	0.01
Uniform Delay, d1	24.3	15.2		23.1	13.8		20.2	11.5	11.0	23.2	14.1	13.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	122.2	0.3		5.3	0.1		0.7	0.1	0.0	16.7	0.1	0.0
Delay (s)	146.5	15.5		28.4	13.9		20.9	11.5	11.0	39.9	14.2	13.5
Level of Service	F	B		C	B		C	B	B	D	B	B
Approach Delay (s)		22.5			15.7			16.2			20.0	
Approach LOS		C			B			B			C	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	49.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	45.8%	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												
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	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		0.99	1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.99		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1788		1761	1863	1554	1770	1837		1754	1863	1554
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1788		1761	1863	1554	1770	1837		1754	1863	1554
Volume (vph)	84	132	42	18	179	31	28	110	9	22	156	74
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	90	142	45	19	192	33	30	118	10	24	168	80
RTOR Reduction (vph)	0	14	0	0	0	27	0	3	0	0	0	45
Lane Group Flow (vph)	90	173	0	19	192	6	30	125	0	24	168	35
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	4.9	13.7		0.9	9.7	9.7	2.2	26.4		0.9	25.1	25.1
Effective Green, g (s)	4.9	14.2		0.9	10.2	10.2	2.2	26.9		0.9	25.6	25.6
Actuated g/C Ratio	0.08	0.24		0.02	0.17	0.17	0.04	0.46		0.02	0.43	0.43
Clearance Time (s)	4.0	4.5		4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	147	431		27	323	269	66	839		27	810	675
v/s Ratio Prot	c0.05	c0.10		0.01	c0.10		c0.02	0.07		0.01	c0.09	
v/s Ratio Perm						0.00						0.02
v/c Ratio	0.61	0.40		0.70	0.59	0.02	0.45	0.15		0.89	0.21	0.05
Uniform Delay, d1	26.1	18.8		28.9	22.4	20.2	27.8	9.3		29.0	10.3	9.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.3	0.6		59.2	2.9	0.0	4.9	0.1		123.9	0.1	0.0
Delay (s)	33.4	19.4		88.1	25.4	20.2	32.7	9.4		152.9	10.5	9.7
Level of Service	C	B		F	C	C	C	A		F	B	A
Approach Delay (s)		23.9			29.6			13.8			22.8	
Approach LOS		C			C			B			C	

Intersection Summary			
HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	58.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	46.7%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	15	115	12	9	199	10	10	15	14	18	29	21
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	125	13	10	216	11	11	16	15	20	32	23

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	154	237	42	74
Volume Left (vph)	16	10	11	20
Volume Right (vph)	13	11	15	23
Hadj (s)	0.00	0.01	-0.13	-0.10
Departure Headway (s)	4.5	4.4	4.8	4.7
Degree Utilization, x	0.19	0.29	0.06	0.10
Capacity (veh/h)	778	790	687	692
Control Delay (s)	8.5	9.1	8.0	8.3
Approach Delay (s)	8.5	9.1	8.0	8.3
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.7		
HCM Level of Service	A		
Intersection Capacity Utilization	27.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	4	150	200	15	24	17
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	163	217	16	26	18
Pedestrians		10	10		10	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	244				417	246
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	244				417	246
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				96	98
cM capacity (veh/h)	1312				580	780

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	167	234	45
Volume Left	4	0	26
Volume Right	0	16	18
cSH	1312	1700	649
Volume to Capacity	0.00	0.14	0.07
Queue Length 95th (ft)	0	0	6
Control Delay (s)	0.2	0.0	11.0
Lane LOS	A		B
Approach Delay (s)	0.2	0.0	11.0
Approach LOS			B

Intersection Summary			
Average Delay	1.2		
Intersection Capacity Utilization	24.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Lane Util. Factor			0.88					0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98					1.00	0.97	1.00	1.00	
Flpb, ped/bikes			1.00					1.00	1.00	1.00	1.00	
Frt			0.85					1.00	0.85	1.00	1.00	
Flt Protected			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2739					3539	1538	1770	3539	
Flt Permitted			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2739					3539	1538	1770	3539	
Volume (vph)	0	0	260	0	0	0	0	594	18	119	197	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	283	0	0	0	0	646	20	129	214	0
RTOR Reduction (vph)	0	0	229	0	0	0	0	0	12	0	0	0
Lane Group Flow (vph)	0	0	54	0	0	0	0	646	8	129	214	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			custom						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)			8.6					19.0	19.0	6.4	29.9	
Effective Green, g (s)			9.1					19.5	19.5	6.9	30.4	
Actuated g/C Ratio			0.19					0.41	0.41	0.15	0.64	
Clearance Time (s)			4.5					4.5	4.5	4.5	4.5	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			525					1453	631	257	2265	
v/s Ratio Prot								c0.18		c0.07	0.06	
v/s Ratio Perm			c0.02						0.01			
v/c Ratio			0.10					0.44	0.01	0.50	0.09	
Uniform Delay, d1			15.8					10.1	8.3	18.7	3.3	
Progression Factor			1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.1					0.2	0.0	1.5	0.0	
Delay (s)			15.9					10.3	8.3	20.3	3.3	
Level of Service			B					B	A	C	A	
Approach Delay (s)		15.9			0.0			10.3			9.7	
Approach LOS		B			A			B			A	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	47.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	31.4%	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												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	13	5	16	6	122	4	427	19	56	324	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	14	5	17	7	133	4	464	21	61	352	5
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	871	987	196	803	972	252	368			495		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	871	987	196	803	972	252	368			495		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	94	99	93	97	82	100			94		
cM capacity (veh/h)	182	227	799	241	232	735	1178			1056		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	20	5	157	4	232	232	21	61	176	176	5
Volume Left	5	0	17	4	0	0	0	61	0	0	0
Volume Right	0	5	133	0	0	0	21	0	0	0	5
cSH	212	799	557	1178	1700	1700	1700	1056	1700	1700	1700
Volume to Capacity	0.09	0.01	0.28	0.00	0.14	0.14	0.01	0.06	0.10	0.10	0.00
Queue Length 95th (ft)	8	1	29	0	0	0	0	5	0	0	0
Control Delay (s)	23.7	9.5	14.0	8.1	0.0	0.0	0.0	8.6	0.0	0.0	0.0
Lane LOS	C	A	B	A				A			
Approach Delay (s)	20.6		14.0	0.1				1.3			
Approach LOS	C		B								

Intersection Summary			
Average Delay	3.0		
Intersection Capacity Utilization	41.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	14	133	11	3	110	2	8	9	10	22	10	10
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
Hourly flow rate (vph)	15	146	12	3	121	2	9	10	11	24	11	11

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	88	85	64	63	30	46
Volume Left (vph)	15	0	3	0	9	24
Volume Right (vph)	0	12	0	2	11	11
Hadj (s)	0.12	-0.07	0.06	0.01	-0.13	0.00
Departure Headway (s)	4.9	4.7	4.9	4.8	4.5	4.6
Degree Utilization, x	0.12	0.11	0.09	0.08	0.04	0.06
Capacity (veh/h)	719	741	712	723	746	727
Control Delay (s)	7.4	7.1	7.1	7.1	7.7	7.9
Approach Delay (s)	7.3		7.1		7.7	7.9
Approach LOS	A		A		A	A

Intersection Summary			
Delay	7.3		
HCM Level of Service	A		
Intersection Capacity Utilization	22.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.97	1.00	1.00	0.97
Flpb, ped/bikes		1.00			1.00		0.99	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1807			1754		1760	3539	1538	1761	3539	1538
Flt Permitted		0.88			0.94		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1622			1659		1760	3539	1538	1761	3539	1538
Volume (vph)	48	56	5	19	49	32	4	363	39	20	281	42
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	51	59	5	20	52	34	4	382	41	21	296	44
RTOR Reduction (vph)	0	3	0	0	29	0	0	0	16	0	0	18
Lane Group Flow (vph)	0	112	0	0	77	0	4	382	25	21	296	26
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		5.9			5.9		0.7	28.2	28.2	0.9	28.4	28.4
Effective Green, g (s)		6.4			6.4		0.7	28.7	28.7	0.9	28.9	28.9
Actuated g/C Ratio		0.13			0.13		0.01	0.60	0.60	0.02	0.60	0.60
Clearance Time (s)		4.5			4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		216			221		26	2116	920	33	2131	926
v/s Ratio Prot							0.00	c0.11		c0.01	0.08	
v/s Ratio Perm		c0.07			0.05				0.02			0.02
v/c Ratio		0.52			0.35		0.15	0.18	0.03	0.64	0.14	0.03
Uniform Delay, d1		19.4			18.9		23.4	4.3	3.9	23.4	4.1	3.9
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		2.3			0.9		2.7	0.0	0.0	33.9	0.0	0.0
Delay (s)		21.6			19.8		26.1	4.4	4.0	57.2	4.2	3.9
Level of Service		C			B		C	A	A	E	A	A
Approach Delay (s)		21.6			19.8			4.6			7.2	
Approach LOS		C			B			A			A	

Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.25		
Actuated Cycle Length (s)	48.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.0%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	5	137	21	20	118	21	23	26	36	46	32	3
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
Hourly flow rate (vph)	6	156	24	23	134	24	26	30	41	52	36	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	185	181	97	89	3
Volume Left (vph)	6	23	26	52	0
Volume Right (vph)	24	24	41	0	3
Hadj (s)	-0.04	-0.02	-0.17	0.33	-0.67
Departure Headway (s)	4.6	4.6	4.9	5.8	4.8
Degree Utilization, x	0.24	0.23	0.13	0.14	0.00
Capacity (veh/h)	738	738	683	575	688
Control Delay (s)	9.0	9.0	8.6	8.6	6.6
Approach Delay (s)	9.0	9.0	8.6	8.5	
Approach LOS	A	A	A	A	

Intersection Summary			
Delay	8.8		
HCM Level of Service	A		
Intersection Capacity Utilization	36.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	399	16	47	252	0	0	0	0	123	0	16
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
Hourly flow rate (vph)	0	453	18	53	286	0	0	0	0	140	0	18
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					1181							
pX, platoon unblocked												
vC, conflicting volume	296			482			751	876	256	640	885	163
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	296			482			751	876	256	640	885	163
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			95			100	100	100	59	100	98
cM capacity (veh/h)	1251			1077			278	270	737	339	266	839

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	302	169	149	191	140	18
Volume Left	0	0	53	0	140	0
Volume Right	0	18	0	0	0	18
cSH	1700	1700	1077	1700	339	839
Volume to Capacity	0.18	0.10	0.05	0.11	0.41	0.02
Queue Length 95th (ft)	0	0	4	0	49	2
Control Delay (s)	0.0	0.0	3.3	0.0	22.9	9.4
Lane LOS			A		C	A
Approach Delay (s)	0.0		1.5		21.3	
Approach LOS					C	

Intersection Summary			
Average Delay	4.0		
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	78	443	0	0	284	137	15	0	105	0	0	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
Hourly flow rate (vph)	89	503	0	0	323	156	17	0	119	0	0	0
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			0.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					807							
pX, platoon unblocked												
vC, conflicting volume	488			513			862	1179	272	969	1101	259
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	488			513			862	1179	272	969	1101	259
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	92			100			93	100	83	100	100	100
cM capacity (veh/h)	1071			1040			228	172	714	160	191	733

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	256	336	215	263	17	119
Volume Left	89	0	0	0	17	0
Volume Right	0	0	0	156	0	119
cSH	1071	1700	1700	1700	228	714
Volume to Capacity	0.08	0.20	0.13	0.15	0.07	0.17
Queue Length 95th (ft)	7	0	0	0	6	15
Control Delay (s)	3.5	0.0	0.0	0.0	22.1	11.1
Lane LOS	A				C	B
Approach Delay (s)	1.5		0.0		12.4	
Approach LOS					B	

Intersection Summary			
Average Delay	2.2		
Intersection Capacity Utilization	46.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	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	
Frt	1.00	0.98		1.00	0.99		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3471		1770	3495		1770	3457		1770	3392	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3471		1770	3495		1770	3457		1770	3392	
Volume (vph)	47	409	54	47	345	28	65	152	25	54	95	32
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	53	465	61	53	392	32	74	173	28	61	108	36
RTOR Reduction (vph)	0	11	0	0	7	0	0	16	0	0	27	0
Lane Group Flow (vph)	53	515	0	53	417	0	74	185	0	61	117	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.0	14.2		2.0	14.2		2.2	11.1		2.0	10.9	
Effective Green, g (s)	2.0	14.7		2.0	14.7		2.2	11.6		2.0	11.4	
Actuated g/C Ratio	0.04	0.32		0.04	0.32		0.05	0.25		0.04	0.25	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	76	1102		76	1110		84	866		76	835	
v/s Ratio Prot	c0.03	c0.15		0.03	0.12		c0.04	c0.05		0.03	0.03	
v/s Ratio Perm												
v/c Ratio	0.70	0.47		0.70	0.38		0.88	0.21		0.80	0.14	
Uniform Delay, d1	21.9	12.7		21.9	12.2		21.9	13.7		22.0	13.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	24.3	0.3		24.3	0.2		60.3	0.1		43.8	0.1	
Delay (s)	46.1	13.0		46.1	12.5		82.2	13.9		65.8	13.7	
Level of Service	D	B		D	B		F	B		E	B	
Approach Delay (s)		16.0			16.2			32.3			29.2	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	46.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.9%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	19	11	8	0	23	0	4	3	1	4	8	28
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
Hourly flow rate (vph)	22	12	9	0	26	0	5	3	1	5	9	32

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	43	26	9	45
Volume Left (vph)	22	0	5	5
Volume Right (vph)	9	0	1	32
Hadj (s)	0.01	0.03	0.06	-0.37
Departure Headway (s)	4.0	4.1	4.1	3.7
Degree Utilization, x	0.05	0.03	0.01	0.05
Capacity (veh/h)	872	864	840	952
Control Delay (s)	7.2	7.2	7.2	6.9
Approach Delay (s)	7.2	7.2	7.2	6.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.1		
HCM Level of Service	A		
Intersection Capacity Utilization	23.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	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	
Frt	1.00	0.99		1.00	0.97		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1848		1770	1797		1770	1842		1770	1846	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1848		1770	1797		1770	1842		1770	1846	
Volume (vph)	18	60	3	19	41	11	8	375	25	9	289	15
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	65	3	21	45	12	9	408	27	10	314	16
RTOR Reduction (vph)	0	3	0	0	11	0	0	1	0	0	1	0
Lane Group Flow (vph)	20	65	0	21	46	0	9	434	0	10	329	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.1	6.8		1.1	6.8		1.0	43.0		1.0	43.0	
Effective Green, g (s)	1.1	7.3		1.1	7.3		1.0	43.5		1.0	43.5	
Actuated g/C Ratio	0.02	0.11		0.02	0.11		0.01	0.63		0.01	0.63	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	28	196		28	190		26	1163		26	1165	
v/s Ratio Prot	0.01	c0.04		c0.01	0.03		0.01	c0.24		c0.01	0.18	
v/s Ratio Perm												
v/c Ratio	0.71	0.33		0.75	0.24		0.35	0.37		0.38	0.28	
Uniform Delay, d1	33.7	28.5		33.8	28.3		33.6	6.1		33.6	5.7	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	60.5	1.0		71.8	0.7		7.9	0.2		9.2	0.1	
Delay (s)	94.3	29.6		105.6	28.9		41.5	6.3		42.9	5.8	
Level of Service	F	C		F	C		D	A		D	A	
Approach Delay (s)		44.3			49.6			7.0			6.9	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	13.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	68.9	Sum of lost time (s)	16.0
Intersection Capacity Utilization	40.2%	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												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	5	109	2	4	81	1	2	4	2	8	6	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
Hourly flow rate (vph)	5	118	2	4	88	1	2	4	2	9	7	2
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	99			131			253	248	140	252	249	109
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	99			131			253	248	140	252	249	109
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	99	100	99	99	100
cM capacity (veh/h)	1481			1443			670	639	893	672	639	929

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	126	93	9	17
Volume Left	5	4	2	9
Volume Right	2	1	2	2
cSH	1481	1443	697	682
Volume to Capacity	0.00	0.00	0.01	0.03
Queue Length 95th (ft)	0	0	1	2
Control Delay (s)	0.3	0.4	10.2	10.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.3	0.4	10.2	10.4
Approach LOS			B	B

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	22.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	18	90	8	21	79	13	6	28	23	15	27	7
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
Hourly flow rate (vph)	20	102	9	24	90	15	7	32	26	17	31	8

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	132	128	65	56
Volume Left (vph)	20	24	7	17
Volume Right (vph)	9	15	26	8
Hadj (s)	0.02	0.00	-0.19	0.01
Departure Headway (s)	4.3	4.3	4.4	4.6
Degree Utilization, x	0.16	0.15	0.08	0.07
Capacity (veh/h)	799	793	769	731
Control Delay (s)	8.2	8.1	7.7	7.9
Approach Delay (s)	8.2	8.1	7.7	7.9
Approach LOS	A	A	A	A

Intersection Summary			
Delay	8.0		
HCM Level of Service	A		
Intersection Capacity Utilization	24.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	201	6	3	114	0	4	0	71	227	6	77
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	218	7	3	124	0	4	0	77	247	7	84
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	134			235			459	372	242	449	375	144
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	134			235			459	372	242	449	375	144
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			99	100	90	46	99	91
cM capacity (veh/h)	1439			1321			446	547	784	454	545	888

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	225	127	82	253	84
Volume Left	0	3	4	247	0
Volume Right	7	0	77	0	84
cSH	1439	1321	753	456	888
Volume to Capacity	0.00	0.00	0.11	0.56	0.09
Queue Length 95th (ft)	0	0	9	83	8
Control Delay (s)	0.0	0.2	10.4	22.3	9.5
Lane LOS		A	B	C	A
Approach Delay (s)	0.0	0.2	10.4	19.1	
Approach LOS			B	C	

Intersection Summary			
Average Delay	9.5		
Intersection Capacity Utilization	37.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	458	44	24	117	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	498	48	26	127	0	0
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			556		721	542
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			556		721	542
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		100	100
cM capacity (veh/h)			1015		381	536

Direction, Lane #	EB 1	WB 1
Volume Total	546	153
Volume Left	0	26
Volume Right	48	0
cSH	1700	1015
Volume to Capacity	0.32	0.03
Queue Length 95th (ft)	0	2
Control Delay (s)	0.0	1.7
Lane LOS		A
Approach Delay (s)	0.0	1.7
Approach LOS		

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	51	407	141	244	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	55	442	153	265	0	0
Pedestrians		10	10		10	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			1274			
pX, platoon unblocked	0.93				0.93	0.93
vC, conflicting volume	428				859	306
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	383				848	251
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				100	100
cM capacity (veh/h)	1089				289	724

Direction, Lane #	EB 1	WB 1
Volume Total	498	418
Volume Left	55	0
Volume Right	0	265
cSH	1089	1700
Volume to Capacity	0.05	0.25
Queue Length 95th (ft)	4	0
Control Delay (s)	1.5	0.0
Lane LOS	A	
Approach Delay (s)	1.5	0.0
Approach LOS		

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	63.5%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	407	0	0	372	13	30
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	442	0	0	404	14	33
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				1004		
pX, platoon unblocked					0.89	
vC, conflicting volume			452		867	462
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			452		850	462
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		95	94
cM capacity (veh/h)			1099		290	589

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	442	404	47
Volume Left	0	0	14
Volume Right	0	0	33
cSH	1700	1700	449
Volume to Capacity	0.26	0.24	0.10
Queue Length 95th (ft)	0	0	9
Control Delay (s)	0.0	0.0	13.9
Lane LOS			B
Approach Delay (s)	0.0	0.0	13.9
Approach LOS			B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	34.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.99	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1765	3498		1765	3488		1759	3539	1557	1764	3539	1540
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1765	3498		1765	3488		1759	3539	1557	1764	3539	1540
Volume (vph)	24	356	27	5	328	31	20	187	8	32	89	17
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	387	29	5	357	34	22	203	9	35	97	18
RTOR Reduction (vph)	0	6	0	0	8	0	0	0	7	0	0	13
Lane Group Flow (vph)	26	410	0	5	383	0	22	203	2	35	97	5
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	0.7	11.8		0.5	11.6		0.7	10.2	10.2	0.7	10.2	10.2
Effective Green, g (s)	0.7	12.3		0.5	12.1		0.7	10.7	10.7	0.7	10.7	10.7
Actuated g/C Ratio	0.02	0.31		0.01	0.30		0.02	0.27	0.27	0.02	0.27	0.27
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	31	1070		22	1050		31	942	414	31	942	410
v/s Ratio Prot	c0.01	c0.12		0.00	0.11		0.01	c0.06		c0.02	0.03	
v/s Ratio Perm									0.00			0.00
v/c Ratio	0.84	0.38		0.23	0.37		0.71	0.22	0.01	1.13	0.10	0.01
Uniform Delay, d1	19.7	11.0		19.7	11.0		19.6	11.5	10.8	19.8	11.1	10.9
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	95.1	0.2		5.2	0.2		54.2	0.1	0.0	203.2	0.0	0.0
Delay (s)	114.8	11.2		24.9	11.3		73.8	11.6	10.8	223.0	11.2	10.9
Level of Service	F	B		C	B		E	B	B	F	B	B
Approach Delay (s)		17.3			11.4			17.4			60.6	
Approach LOS		B			B			B			E	

Intersection Summary			
HCM Average Control Delay	20.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.30		
Actuated Cycle Length (s)	40.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.1%	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												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	800	7	7	480	10	19	3	65	2	10	19
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	870	8	8	522	11	21	3	71	2	11	21
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	543			887			1228	1474	459	1102	1472	286
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	543			887			1228	1474	459	1102	1472	286
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	98			99			82	97	87	98	91	97
cM capacity (veh/h)	1014			753			115	120	540	135	120	699

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1	SB 1
Volume Total	16	580	297	8	348	185	95	34
Volume Left	16	0	0	8	0	0	21	2
Volume Right	0	0	8	0	0	11	71	21
cSH	1014	1700	1700	753	1700	1700	281	248
Volume to Capacity	0.02	0.34	0.17	0.01	0.20	0.11	0.34	0.14
Queue Length 95th (ft)	1	0	0	1	0	0	36	12
Control Delay (s)	8.6	0.0	0.0	9.8	0.0	0.0	24.2	21.8
Lane LOS	A			A			C	C
Approach Delay (s)	0.2			0.1			24.2	21.8
Approach LOS							C	C

Intersection Summary			
Average Delay	2.1		
Intersection Capacity Utilization	41.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3478		1770	3510		1770	1770		1770	1817	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3478		1770	3510		1770	1770		1770	1817	
Volume (vph)	47	752	79	98	442	21	56	200	84	35	134	23
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	817	86	107	480	23	61	217	91	38	146	25
RTOR Reduction (vph)	0	8	0	0	4	0	0	18	0	0	7	0
Lane Group Flow (vph)	51	895	0	107	499	0	61	290	0	38	164	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	3.6	22.7		6.1	25.2		3.7	16.3		3.5	16.1	
Effective Green, g (s)	3.6	23.2		6.1	25.7		3.7	16.8		3.5	16.6	
Actuated g/C Ratio	0.05	0.35		0.09	0.39		0.06	0.26		0.05	0.25	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	97	1230		165	1375		100	453		94	460	
v/s Ratio Prot	0.03	c0.26		c0.06	0.14		c0.03	c0.16		0.02	0.09	
v/s Ratio Perm												
v/c Ratio	0.53	0.73		0.65	0.36		0.61	0.64		0.40	0.36	
Uniform Delay, d1	30.2	18.4		28.7	14.1		30.2	21.7		30.0	20.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	5.1	2.2		8.5	0.2		10.1	3.1		2.8	0.5	
Delay (s)	35.2	20.6		37.2	14.3		40.4	24.8		32.9	20.6	
Level of Service	D	C		D	B		D	C		C	C	
Approach Delay (s)		21.4			18.3			27.4			22.8	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	65.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Sign Control		Free			Free	Stop	
Grade		0%			0%	0%	
Volume (veh/h)	0	861	8	4	543	17	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	936	9	4	590	18	41
Pedestrians		10			10	10	
Lane Width (ft)		8.0			12.0	12.0	
Walking Speed (ft/s)		4.0			4.0	4.0	
Percent Blockage		1			1	1	
Right turn flare (veh)							
Median type						None	
Median storage veh)							
Upstream signal (ft)							
pX, platoon unblocked	0.00						
vC, conflicting volume	0			955		1264	492
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	0			955		1264	492
tC, single (s)	0.0			4.1		6.8	6.9
tC, 2 stage (s)							
tF (s)	0.0			2.2		3.5	3.3
p0 queue free %	0			99		88	92
cM capacity (veh/h)	0			710		158	514

Direction, Lane #	EB 1	EB 2	EB 3	WB 1	WB 2	WB 3	NB 1
Volume Total	624	321	0	4	295	295	60
Volume Left	0	0	0	4	0	0	18
Volume Right	0	9	0	0	0	0	41
cSH	1700	1700	1700	710	1700	1700	303
Volume to Capacity	0.37	0.19	0.00	0.01	0.17	0.17	0.20
Queue Length 95th (ft)	0	0	0	0	0	0	18
Control Delay (s)	0.0	0.0	0.0	10.1	0.0	0.0	19.8
Lane LOS				B			C
Approach Delay (s)	0.0			0.1			19.8
Approach LOS							C

Intersection Summary			
Average Delay	0.8		
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												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	9	1	1	9	4	1	2	1	3	6	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
Hourly flow rate (vph)	1	10	1	1	10	4	1	2	1	3	7	1
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	24			21			51	49	30	49	47	32
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	24			21			51	49	30	49	47	32
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	99	100
cM capacity (veh/h)	1577			1582			913	828	1027	920	829	1025

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	12	15	4	11
Volume Left	1	1	1	3
Volume Right	1	4	1	1
cSH	1577	1582	892	872
Volume to Capacity	0.00	0.00	0.00	0.01
Queue Length 95th (ft)	0	0	0	1
Control Delay (s)	0.7	0.5	9.1	9.2
Lane LOS	A	A	A	A
Approach Delay (s)	0.7	0.5	9.1	9.2
Approach LOS			A	A

Intersection Summary			
Average Delay	3.7		
Intersection Capacity Utilization	19.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	4	8	5	22	2	140	5	204	52	301	390	4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	4	9	5	24	2	152	5	222	57	327	424	4
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1373	1387	232	1157	1363	159	438			288		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1373	1387	232	1157	1363	159	438			288		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	92	99	78	98	82	100			74		
cM capacity (veh/h)	65	103	757	109	106	844	1109			1260		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	13	5	178	5	148	130	327	212	212	4
Volume Left	4	0	24	5	0	0	327	0	0	0
Volume Right	0	5	152	0	0	57	0	0	0	4
cSH	86	757	425	1109	1700	1700	1260	1700	1700	1700
Volume to Capacity	0.15	0.01	0.42	0.00	0.09	0.08	0.26	0.12	0.12	0.00
Queue Length 95th (ft)	13	1	51	0	0	0	26	0	0	0
Control Delay (s)	54.0	9.8	19.5	8.3	0.0	0.0	8.9	0.0	0.0	0.0
Lane LOS	F	A	C	A			A			
Approach Delay (s)	41.0		19.5	0.2			3.8			
Approach LOS	E		C							

Intersection Summary			
Average Delay	5.8		
Intersection Capacity Utilization	53.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	280	89	141	110	34	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	304	97	153	120	37	125
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			411		799	373
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			411		799	373
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			87		88	81
cM capacity (veh/h)			1138		302	662

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	401	273	162
Volume Left	0	153	37
Volume Right	97	0	125
cSH	1700	1138	520
Volume to Capacity	0.24	0.13	0.31
Queue Length 95th (ft)	0	12	33
Control Delay (s)	0.0	5.4	15.0
Lane LOS		A	C
Approach Delay (s)	0.0	5.4	15.0
Approach LOS			C

Intersection Summary			
Average Delay	4.7		
Intersection Capacity Utilization	54.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	81	234	39	37	104	38	65	170	36	52	150	91
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	88	254	42	40	113	41	71	185	39	57	163	99

Direction, Lane #	EB 1	WB 1	NB 1	NB 2	SB 1
Volume Total (vph)	385	195	255	39	318
Volume Left (vph)	88	40	71	0	57
Volume Right (vph)	42	41	0	39	99
Hadj (s)	0.01	-0.05	0.17	-0.67	-0.12
Departure Headway (s)	6.5	6.9	7.4	6.5	6.6
Degree Utilization, x	0.69	0.37	0.52	0.07	0.59
Capacity (veh/h)	520	448	449	502	497
Control Delay (s)	22.6	14.0	16.9	8.8	18.5
Approach Delay (s)	22.6	14.0	15.8		18.5
Approach LOS	C	B	C		C

Intersection Summary			
Delay	18.4		
HCM Level of Service	C		
Intersection Capacity Utilization	66.1%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	15	313	0	0	175	2	0	0	0	4	0	15
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	340	0	0	190	2	0	0	0	4	0	16
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	202			350			600	585	360	584	584	211
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	202			350			600	585	360	584	584	211
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	99	100	98
cM capacity (veh/h)	1358			1199			389	411	673	407	411	815

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	357	192	0	21
Volume Left	16	0	0	4
Volume Right	0	2	0	16
cSH	1358	1199	1700	673
Volume to Capacity	0.01	0.00	0.00	0.03
Queue Length 95th (ft)	1	0	0	2
Control Delay (s)	0.5	0.0	0.0	10.5
Lane LOS	A		A	B
Approach Delay (s)	0.5	0.0	0.0	10.5
Approach LOS			A	B

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	257	37	17	143	50	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	279	40	18	155	54	13
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			330		512	319
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			330		512	319
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		89	98
cM capacity (veh/h)			1220		506	709

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	320	174	67
Volume Left	0	18	54
Volume Right	40	0	13
cSH	1700	1220	535
Volume to Capacity	0.19	0.02	0.13
Queue Length 95th (ft)	0	1	11
Control Delay (s)	0.0	1.0	12.7
Lane LOS		A	B
Approach Delay (s)	0.0	1.0	12.7
Approach LOS			B

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	34.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	9	260	153	7	1	7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	10	283	166	8	1	8
Pedestrians		10	10		10	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	184				492	190
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	184				492	190
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	99				100	99
cM capacity (veh/h)	1379				523	838

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	292	174	9
Volume Left	10	0	1
Volume Right	0	8	8
cSH	1379	1700	779
Volume to Capacity	0.01	0.10	0.01
Queue Length 95th (ft)	1	0	1
Control Delay (s)	0.3	0.0	9.7
Lane LOS	A		A
Approach Delay (s)	0.3	0.0	9.7
Approach LOS			A

Intersection Summary			
Average Delay	0.4		
Intersection Capacity Utilization	33.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	271	7	13	141	9	12
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	295	8	14	153	10	13
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			312		500	318
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			312		500	318
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		98	98
cM capacity (veh/h)			1238		516	710

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	302	167	23
Volume Left	0	14	10
Volume Right	8	0	13
cSH	1700	1238	611
Volume to Capacity	0.18	0.01	0.04
Queue Length 95th (ft)	0	1	3
Control Delay (s)	0.0	0.8	11.1
Lane LOS		A	B
Approach Delay (s)	0.0	0.8	11.1
Approach LOS			B

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	31.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	1	96	3	8	125	8	6	1	15	8	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
Hourly flow rate (vph)	1	104	3	9	136	9	7	1	16	9	3	1
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	155			118			288	290	126	303	287	160
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	155			118			288	290	126	303	287	160
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			99	100	98	99	99	100
cM capacity (veh/h)	1414			1458			638	606	909	616	608	870

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	109	153	24	13
Volume Left	1	9	7	9
Volume Right	3	9	16	1
cSH	1414	1458	798	629
Volume to Capacity	0.00	0.01	0.03	0.02
Queue Length 95th (ft)	0	0	2	2
Control Delay (s)	0.1	0.5	9.6	10.8
Lane LOS	A	A	A	B
Approach Delay (s)	0.1	0.5	9.6	10.8
Approach LOS			A	B

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	25.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95				1.00	0.97	1.00	1.00
Frpb, ped/bikes		1.00	0.97	1.00	1.00				0.98	1.00	1.00	0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Frt		1.00	0.85	1.00	1.00				0.86	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00				1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1535	1770	3539				1582	3433	1863	1535
Flt Permitted		1.00	1.00	0.95	1.00				1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1535	1770	3539				1582	3433	1863	1535
Volume (vph)	0	443	81	119	451	0	0	0	184	343	57	104
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.88	0.92	0.92	0.92
Adj. Flow (vph)	0	482	88	129	490	0	0	0	209	373	62	113
RTOR Reduction (vph)	0	0	66	0	0	0	0	0	174	0	0	65
Lane Group Flow (vph)	0	482	22	129	490	0	0	0	35	373	62	48
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			Perm	Prot					custom	Prot		Perm
Protected Phases		4		3	8					1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)		13.9	13.9	6.2	24.1				9.0	10.9	23.9	23.9
Effective Green, g (s)		14.4	14.4	6.2	24.6				9.5	10.9	24.4	24.4
Actuated g/C Ratio		0.25	0.25	0.11	0.43				0.17	0.19	0.43	0.43
Clearance Time (s)		4.5	4.5	4.0	4.5				4.5	4.0	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0				3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		894	388	193	1527				264	656	797	657
v/s Ratio Prot		c0.14		c0.07	0.14					c0.11	0.03	
v/s Ratio Perm			0.01						c0.02			0.03
v/c Ratio		0.54	0.06	0.67	0.32				0.13	0.57	0.08	0.07
Uniform Delay, d1		18.4	16.2	24.4	10.7				20.2	20.9	9.6	9.6
Progression Factor		1.00	1.00	1.00	1.00				1.00	1.00	1.00	1.00
Incremental Delay, d2		0.6	0.1	8.5	0.1				0.2	1.1	0.0	0.0
Delay (s)		19.1	16.2	32.9	10.8				20.5	22.1	9.7	9.7
Level of Service		B	B	C	B				C	C	A	A
Approach Delay (s)		18.6			15.4			20.5			18.1	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	17.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	57.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.2%	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												
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	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95		0.97	0.95	1.00	1.00	0.95	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	0.99		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	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	0.97		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1552	3433	3401		3433	3539	1552	1770	3539	2732
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1552	3433	3401		3433	3539	1552	1770	3539	2732
Volume (vph)	226	581	118	122	629	172	119	120	85	74	193	189
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.85	0.85	0.85
Adj. Flow (vph)	246	632	128	133	684	187	129	130	92	87	227	222
RTOR Reduction (vph)	0	0	74	0	27	0	0	0	76	0	0	183
Lane Group Flow (vph)	246	632	54	133	844	0	129	130	16	87	227	39
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4						2			6
Actuated Green, G (s)	11.8	28.8	28.8	5.7	22.7		5.7	11.6	11.6	5.8	11.7	11.7
Effective Green, g (s)	11.8	29.3	29.3	5.7	23.2		5.7	12.1	12.1	5.8	12.2	12.2
Actuated g/C Ratio	0.17	0.43	0.43	0.08	0.34		0.08	0.18	0.18	0.08	0.18	0.18
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	303	1505	660	284	1145		284	622	273	149	627	484
v/s Ratio Prot	c0.14	0.18		0.04	c0.25		0.04	0.04		c0.05	c0.06	
v/s Ratio Perm			0.04						0.01			0.01
v/c Ratio	0.81	0.42	0.08	0.47	0.74		0.45	0.21	0.06	0.58	0.36	0.08
Uniform Delay, d1	27.5	13.9	11.8	30.2	20.2		30.1	24.3	23.7	30.4	24.9	23.7
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	15.1	0.2	0.1	1.2	2.5		1.2	0.2	0.1	5.7	0.4	0.1
Delay (s)	42.6	14.0	11.8	31.4	22.7		31.3	24.5	23.7	36.1	25.3	23.7
Level of Service	D	B	B	C	C		C	C	C	D	C	C
Approach Delay (s)		20.8			23.8			26.8			26.4	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	68.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.6%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	0.99			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	3502			3539	1720	
Flt Permitted	1.00			1.00	0.97	
Satd. Flow (perm)	3502			3539	1720	
Volume (vph)	685	44	0	745	146	61
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	745	48	0	810	159	66
RTOR Reduction (vph)	7	0	0	0	27	0
Lane Group Flow (vph)	786	0	0	810	198	0
Confl. Peds. (#/hr)		10	10		10	10
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	14.5			14.5	10.8	
Effective Green, g (s)	15.0			15.0	11.3	
Actuated g/C Ratio	0.44			0.44	0.33	
Clearance Time (s)	4.5			4.5	4.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1531			1548	567	
v/s Ratio Prot	0.22			c0.23	c0.11	
v/s Ratio Perm						
v/c Ratio	0.51			0.52	0.35	
Uniform Delay, d1	7.0			7.0	8.7	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.3			0.3	0.4	
Delay (s)	7.3			7.4	9.1	
Level of Service	A			A	A	
Approach Delay (s)	7.3			7.4	9.1	
Approach LOS	A			A	A	

Intersection Summary			
HCM Average Control Delay	7.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	34.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.7%	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												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.94		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3299		1770	3522		3433	3539	1554	1770	3539	1554
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3299		1770	3522		3433	3539	1554	1770	3539	1554
Volume (vph)	45	356	243	95	318	9	167	194	3	75	271	47
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	49	387	264	103	346	10	182	211	3	82	295	51
RTOR Reduction (vph)	0	138	0	0	2	0	0	0	2	0	0	39
Lane Group Flow (vph)	49	513	0	103	354	0	182	211	1	82	295	12
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	3.8	16.0		6.3	18.5		5.6	15.0	15.0	4.0	13.4	13.4
Effective Green, g (s)	3.8	16.5		6.3	19.0		5.6	15.5	15.5	4.0	13.9	13.9
Actuated g/C Ratio	0.07	0.28		0.11	0.33		0.10	0.27	0.27	0.07	0.24	0.24
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	115	934		191	1148		330	941	413	121	844	371
v/s Ratio Prot	0.03	c0.16		c0.06	0.10		c0.05	0.06		0.05	c0.08	
v/s Ratio Perm									0.00			0.01
v/c Ratio	0.43	0.55		0.54	0.31		0.55	0.22	0.00	0.68	0.35	0.03
Uniform Delay, d1	26.2	17.7		24.6	14.7		25.2	16.7	15.7	26.5	18.4	17.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.5	0.7		2.9	0.2		2.0	0.1	0.0	14.0	0.3	0.0
Delay (s)	28.7	18.4		27.5	14.9		27.1	16.8	15.7	40.6	18.7	17.1
Level of Service	C	B		C	B		C	B	B	D	B	B
Approach Delay (s)		19.1			17.7			21.6			22.7	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	58.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	54.4%	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												
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	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	0.99		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1820		1770	1863	1553	1770	1791		1770	1863	1553
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1820		1770	1863	1553	1770	1791		1770	1863	1553
Volume (vph)	206	278	43	30	272	40	42	161	43	34	162	99
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	224	302	47	33	296	43	46	175	47	37	176	108
RTOR Reduction (vph)	0	5	0	0	0	31	0	11	0	0	0	85
Lane Group Flow (vph)	224	344	0	33	296	12	46	211	0	37	176	23
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	12.2	27.9		2.4	18.1	18.1	3.8	14.9		2.4	13.5	13.5
Effective Green, g (s)	12.2	28.4		2.4	18.6	18.6	3.8	15.4		2.4	14.0	14.0
Actuated g/C Ratio	0.19	0.44		0.04	0.29	0.29	0.06	0.24		0.04	0.22	0.22
Clearance Time (s)	4.0	4.5		4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	334	800		66	536	447	104	427		66	404	337
v/s Ratio Prot	c0.13	0.19		0.02	c0.16		c0.03	c0.12		0.02	0.09	
v/s Ratio Perm						0.01						0.02
v/c Ratio	0.67	0.43		0.50	0.55	0.03	0.44	0.49		0.56	0.44	0.07
Uniform Delay, d1	24.3	12.5		30.5	19.5	16.5	29.4	21.2		30.6	21.9	20.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	5.2	0.4		5.8	1.2	0.0	3.0	0.9		10.4	0.8	0.1
Delay (s)	29.5	12.9		36.4	20.7	16.5	32.4	22.1		41.0	22.6	20.2
Level of Service	C	B		D	C	B	C	C		D	C	C
Approach Delay (s)		19.4			21.6			23.9			23.9	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	21.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	64.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	59.2%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	35	330	7	10	289	22	6	19	7	12	22	24
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	38	359	8	11	314	24	7	21	8	13	24	26

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	404	349	35	63
Volume Left (vph)	38	11	7	13
Volume Right (vph)	8	24	8	26
Hadj (s)	0.04	0.00	-0.06	-0.17
Departure Headway (s)	4.6	4.6	5.7	5.5
Degree Utilization, x	0.52	0.45	0.05	0.10
Capacity (veh/h)	759	748	536	564
Control Delay (s)	12.5	11.4	9.0	9.1
Approach Delay (s)	12.5	11.4	9.0	9.1
Approach LOS	B	B	A	A

Intersection Summary			
Delay	11.7		
HCM Level of Service	B		
Intersection Capacity Utilization	47.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	18	352	285	13	13	28
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	20	383	310	14	14	30
Pedestrians		10	10		10	
Lane Width (ft)		12.0	12.0		12.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	334				759	337
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	334				759	337
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	98				96	96
cM capacity (veh/h)	1215				362	694

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	402	324	45
Volume Left	20	0	14
Volume Right	0	14	30
cSH	1215	1700	538
Volume to Capacity	0.02	0.19	0.08
Queue Length 95th (ft)	1	0	7
Control Delay (s)	0.5	0.0	12.3
Lane LOS	A		B
Approach Delay (s)	0.5	0.0	12.3
Approach LOS			B

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	46.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Lane Util. Factor			0.88					0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98					1.00	0.97	1.00	1.00	
Flpb, ped/bikes			1.00					1.00	1.00	1.00	1.00	
Frt			0.85					1.00	0.85	1.00	1.00	
Flt Protected			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2739					3539	1538	1770	3539	
Flt Permitted			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2739					3539	1538	1770	3539	
Volume (vph)	0	0	405	0	0	0	0	718	39	175	257	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	440	0	0	0	0	780	42	190	279	0
RTOR Reduction (vph)	0	0	354	0	0	0	0	0	27	0	0	0
Lane Group Flow (vph)	0	0	86	0	0	0	0	780	15	190	279	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			custom						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)			8.6					16.4	16.4	8.0	28.9	
Effective Green, g (s)			9.1					16.9	16.9	8.5	29.4	
Actuated g/C Ratio			0.20					0.36	0.36	0.18	0.63	
Clearance Time (s)			4.5					4.5	4.5	4.5	4.5	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			536					1286	559	324	2238	
v/s Ratio Prot								c0.22		c0.11	0.08	
v/s Ratio Perm			c0.03						0.01			
v/c Ratio			0.16					0.61	0.03	0.59	0.12	
Uniform Delay, d1			15.5					12.1	9.5	17.4	3.4	
Progression Factor			1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.1					0.8	0.0	2.7	0.0	
Delay (s)			15.7					12.9	9.5	20.1	3.4	
Level of Service			B					B	A	C	A	
Approach Delay (s)		15.7			0.0			12.7			10.2	
Approach LOS		B			A			B			B	

Intersection Summary			
HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	46.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	37.0%	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												
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Volume (veh/h)	3	12	6	20	24	89	7	560	31	130	484	10
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	13	7	22	26	97	8	609	34	141	526	11
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	1258	1486	283	1203	1463	324	547			652		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1258	1486	283	1203	1463	324	547			652		
tC, single (s)	7.5	6.5	6.9	7.5	6.5	6.9	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	96	87	99	80	75	85	99			85		
cM capacity (veh/h)	75	102	702	107	105	660	1010			922		

Direction, Lane #	EB 1	EB 2	WB 1	NB 1	NB 2	NB 3	NB 4	SB 1	SB 2	SB 3	SB 4
Volume Total	16	7	145	8	304	304	34	141	263	263	11
Volume Left	3	0	22	8	0	0	0	141	0	0	0
Volume Right	0	7	97	0	0	0	34	0	0	0	11
cSH	95	702	242	1010	1700	1700	1700	922	1700	1700	1700
Volume to Capacity	0.17	0.01	0.60	0.01	0.18	0.18	0.02	0.15	0.15	0.15	0.01
Queue Length 95th (ft)	15	1	87	1	0	0	0	13	0	0	0
Control Delay (s)	50.4	10.2	39.8	8.6	0.0	0.0	0.0	9.6	0.0	0.0	0.0
Lane LOS	F	B	E	A				A			
Approach Delay (s)	38.9		39.8	0.1				2.0			
Approach LOS	E		E								

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	47.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	6	92	7	4	51	17	8	6	23	16	41	6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	7	100	8	4	55	18	9	7	25	17	45	7

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	57	58	32	46	40	68
Volume Left (vph)	7	0	4	0	9	17
Volume Right (vph)	0	8	0	18	25	7
Hadj (s)	0.09	-0.06	0.10	-0.25	-0.30	0.03
Departure Headway (s)	4.9	4.8	4.9	4.6	4.1	4.4
Degree Utilization, x	0.08	0.08	0.04	0.06	0.05	0.08
Capacity (veh/h)	715	732	699	755	826	781
Control Delay (s)	7.1	6.9	7.0	6.7	7.3	7.8
Approach Delay (s)	7.0		6.8		7.3	7.8
Approach LOS	A		A		A	A

Intersection Summary			
Delay	7.2		
HCM Level of Service	A		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0
Lane Util. Factor		1.00			1.00		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes		1.00			0.99		1.00	1.00	0.97	1.00	1.00	0.97
Flpb, ped/bikes		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.99			0.96		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected		0.98			0.99		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)		1802			1753		1770	3539	1536	1770	3539	1536
Flt Permitted		0.88			0.89		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)		1614			1587		1770	3539	1536	1770	3539	1536
Volume (vph)	39	70	13	51	82	55	15	494	64	63	443	50
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	76	14	55	89	60	16	537	70	68	482	54
RTOR Reduction (vph)	0	7	0	0	24	0	0	0	37	0	0	26
Lane Group Flow (vph)	0	125	0	0	180	0	16	537	33	68	482	28
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm			Perm			Prot		Perm	Prot		Perm
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8					2			6
Actuated Green, G (s)		12.5			12.5		1.1	25.1	25.1	2.9	26.9	26.9
Effective Green, g (s)		13.0			13.0		1.1	25.6	25.6	2.9	27.4	27.4
Actuated g/C Ratio		0.24			0.24		0.02	0.48	0.48	0.05	0.51	0.51
Clearance Time (s)		4.5			4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)		3.0			3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		392			386		36	1693	735	96	1812	787
v/s Ratio Prot							0.01	c0.15		c0.04	0.14	
v/s Ratio Perm		0.08			c0.11				0.02			0.02
v/c Ratio		0.32			0.47		0.44	0.32	0.05	0.71	0.27	0.04
Uniform Delay, d1		16.6			17.3		25.9	8.6	7.4	24.9	7.4	6.5
Progression Factor		1.00			1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2		0.5			0.9		8.5	0.1	0.0	21.2	0.1	0.0
Delay (s)		17.1			18.2		34.4	8.7	7.5	46.1	7.4	6.5
Level of Service		B			B		C	A	A	D	A	A
Approach Delay (s)		17.1			18.2			9.2			11.7	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM Average Control Delay	12.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	53.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.6%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	13	164	35	51	169	12	42	37	48	15	24	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	178	38	55	184	13	46	40	52	16	26	3

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total (vph)	230	252	138	42	3
Volume Left (vph)	14	55	46	16	0
Volume Right (vph)	38	13	52	0	3
Hadj (s)	-0.05	0.05	-0.13	0.23	-0.67
Departure Headway (s)	4.7	4.7	5.1	6.1	5.2
Degree Utilization, x	0.30	0.33	0.20	0.07	0.00
Capacity (veh/h)	728	724	644	533	618
Control Delay (s)	9.6	10.1	9.4	8.3	7.0
Approach Delay (s)	9.6	10.1	9.4	8.2	
Approach LOS	A	B	A	A	

Intersection Summary			
Delay	9.6		
HCM Level of Service	A		
Intersection Capacity Utilization	48.4%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	328	30	85	355	0	0	0	0	149	0	44
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	357	33	92	386	0	0	0	0	162	0	48
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			0.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			0			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					1181							
pX, platoon unblocked												
vC, conflicting volume	396			399			818	963	215	769	980	213
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	396			399			818	963	215	769	980	213
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			92			100	100	100	39	100	94
cM capacity (veh/h)	1150			1156			232	232	784	267	227	779

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	SB 1	SB 2
Volume Total	238	151	221	257	162	48
Volume Left	0	0	92	0	162	0
Volume Right	0	33	0	0	0	48
cSH	1700	1700	1156	1700	267	779
Volume to Capacity	0.14	0.09	0.08	0.15	0.61	0.06
Queue Length 95th (ft)	0	0	7	0	91	5
Control Delay (s)	0.0	0.0	3.9	0.0	37.4	9.9
Lane LOS			A		E	A
Approach Delay (s)	0.0		1.8		31.1	
Approach LOS					D	

Intersection Summary			
Average Delay	6.9		
Intersection Capacity Utilization	48.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	29	453	0	0	403	146	23	0	114	0	0	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
Hourly flow rate (vph)	32	492	0	0	438	159	25	0	124	0	0	0
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			0.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)					807							
pX, platoon unblocked												
vC, conflicting volume	607			502			794	1172	266	971	1093	318
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	607			502			794	1172	266	971	1093	318
tC, single (s)	4.1			4.1			7.5	6.5	6.9	7.5	6.5	6.9
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	97			100			91	100	83	100	100	100
cM capacity (veh/h)	967			1049			265	183	720	165	204	672

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2
Volume Total	196	328	292	305	25	124
Volume Left	32	0	0	0	25	0
Volume Right	0	0	0	159	0	124
cSH	967	1700	1700	1700	265	720
Volume to Capacity	0.03	0.19	0.17	0.18	0.09	0.17
Queue Length 95th (ft)	3	0	0	0	8	15
Control Delay (s)	1.7	0.0	0.0	0.0	20.0	11.0
Lane LOS	A				C	B
Approach Delay (s)	0.6		0.0		12.5	
Approach LOS					B	

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	48.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	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	
Frt	1.00	0.98		1.00	0.98		1.00	0.98		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3469		1770	3463		1770	3474		1770	3384	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3469		1770	3463		1770	3474		1770	3384	
Volume (vph)	66	440	59	71	366	54	127	216	27	58	184	65
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	72	478	64	77	398	59	138	235	29	63	200	71
RTOR Reduction (vph)	0	12	0	0	14	0	0	11	0	0	44	0
Lane Group Flow (vph)	72	530	0	77	443	0	138	253	0	63	227	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	3.8	14.8		3.8	14.8		6.9	15.9		3.7	12.7	
Effective Green, g (s)	3.8	15.3		3.8	15.3		6.9	16.4		3.7	13.2	
Actuated g/C Ratio	0.07	0.28		0.07	0.28		0.12	0.30		0.07	0.24	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	122	962		122	960		221	1032		119	809	
v/s Ratio Prot	0.04	c0.15		c0.04	0.13		c0.08	c0.07		0.04	0.07	
v/s Ratio Perm												
v/c Ratio	0.59	0.55		0.63	0.46		0.62	0.24		0.53	0.28	
Uniform Delay, d1	24.9	17.0		25.0	16.5		22.9	14.7		24.9	17.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	7.4	0.7		10.2	0.4		5.4	0.1		4.2	0.2	
Delay (s)	32.4	17.7		35.2	16.9		28.3	14.8		29.1	17.3	
Level of Service	C	B		D	B		C	B		C	B	
Approach Delay (s)		19.4			19.5			19.5			19.5	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	55.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.5%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	40	23	5	1	43	7	9	8	0	8	7	50
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	43	25	5	1	47	8	10	9	0	9	8	54

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	74	55	18	71
Volume Left (vph)	43	1	10	9
Volume Right (vph)	5	8	0	54
Hadj (s)	0.11	-0.04	0.14	-0.40
Departure Headway (s)	4.2	4.1	4.4	3.8
Degree Utilization, x	0.09	0.06	0.02	0.07
Capacity (veh/h)	824	850	784	913
Control Delay (s)	7.7	7.4	7.5	7.1
Approach Delay (s)	7.7	7.4	7.5	7.1
Approach LOS	A	A	A	A

Intersection Summary			
Delay	7.4		
HCM Level of Service	A		
Intersection Capacity Utilization	25.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	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	
Frt	1.00	1.00		1.00	0.97		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1857		1770	1801		1770	1830		1770	1837	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	1857		1770	1801		1770	1830		1770	1837	
Volume (vph)	24	57	1	44	61	15	5	471	51	35	435	35
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	62	1	48	66	16	5	512	55	38	473	38
RTOR Reduction (vph)	0	1	0	0	13	0	0	2	0	0	2	0
Lane Group Flow (vph)	26	62	0	48	69	0	5	565	0	38	509	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	2.7	6.0		2.8	6.1		1.0	48.9		2.8	50.7	
Effective Green, g (s)	2.7	6.5		2.8	6.6		1.0	49.4		2.8	51.2	
Actuated g/C Ratio	0.03	0.08		0.04	0.09		0.01	0.64		0.04	0.66	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	62	156		64	153		23	1166		64	1214	
v/s Ratio Prot	0.01	0.03		c0.03	c0.04		0.00	c0.31		c0.02	0.28	
v/s Ratio Perm												
v/c Ratio	0.42	0.40		0.75	0.45		0.22	0.48		0.59	0.42	
Uniform Delay, d1	36.6	33.6		37.0	33.7		37.9	7.4		36.8	6.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	4.5	1.7		38.4	2.1		4.7	0.3		13.9	0.2	
Delay (s)	41.2	35.3		75.4	35.8		42.6	7.7		50.7	6.4	
Level of Service	D	D		E	D		D	A		D	A	
Approach Delay (s)		37.0			50.4			8.0			9.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	77.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.7%	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												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	13	151	3	3	120	11	1	18	1	3	15	3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	14	164	3	3	130	12	1	20	1	3	16	3
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	152			177			368	363	186	368	359	156
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	152			177			368	363	186	368	359	156
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	96	100	99	97	100
cM capacity (veh/h)	1416			1387			551	548	842	550	552	874

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total	182	146	22	23
Volume Left	14	3	1	3
Volume Right	3	12	1	3
cSH	1416	1387	558	582
Volume to Capacity	0.01	0.00	0.04	0.04
Queue Length 95th (ft)	1	0	3	3
Control Delay (s)	0.7	0.2	11.7	11.4
Lane LOS	A	A	B	B
Approach Delay (s)	0.7	0.2	11.7	11.4
Approach LOS			B	B

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	27.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	22	109	9	17	107	11	13	94	112	11	50	20
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	24	118	10	18	116	12	14	102	122	12	54	22

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	152	147	238	88
Volume Left (vph)	24	18	14	12
Volume Right (vph)	10	12	122	22
Hadj (s)	0.03	0.01	-0.26	-0.09
Departure Headway (s)	4.9	4.9	4.5	4.9
Degree Utilization, x	0.21	0.20	0.30	0.12
Capacity (veh/h)	677	679	751	674
Control Delay (s)	9.2	9.1	9.4	8.5
Approach Delay (s)	9.2	9.1	9.4	8.5
Approach LOS	A	A	A	A

Intersection Summary			
Delay	9.2		
HCM Level of Service	A		
Intersection Capacity Utilization	32.9%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Volume (veh/h)	0	294	4	7	185	0	8	0	53	268	11	74
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	320	4	8	201	0	9	0	58	291	12	80
Pedestrians		10			10			10			10	
Lane Width (ft)		12.0			12.0			12.0			12.0	
Walking Speed (ft/s)		4.0			4.0			4.0			4.0	
Percent Blockage		1			1			1			1	
Right turn flare (veh)												
Median type								None			None	
Median storage veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	211			334			644	558	342	616	560	221
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	211			334			644	558	342	616	560	221
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			99			97	100	92	18	97	90
cM capacity (veh/h)	1348			1215			328	428	689	357	427	805

Direction, Lane #	EB 1	WB 1	NB 1	SB 1	SB 2
Volume Total	324	209	66	303	80
Volume Left	0	8	9	291	0
Volume Right	4	0	58	0	80
cSH	1348	1215	602	359	805
Volume to Capacity	0.00	0.01	0.11	0.84	0.10
Queue Length 95th (ft)	0	0	9	193	8
Control Delay (s)	0.0	0.3	11.7	50.9	10.0
Lane LOS		A	B	F	A
Approach Delay (s)	0.0	0.3	11.7	42.4	
Approach LOS			B	E	

Intersection Summary			
Average Delay	17.4		
Intersection Capacity Utilization	44.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	550	63	40	192	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	598	68	43	209	0	0
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	0.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			676		948	652
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			676		948	652
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			95		100	100
cM capacity (veh/h)			915		273	464

Direction, Lane #	EB 1	WB 1
Volume Total	666	252
Volume Left	0	43
Volume Right	68	0
cSH	1700	915
Volume to Capacity	0.39	0.05
Queue Length 95th (ft)	0	4
Control Delay (s)	0.0	2.0
Lane LOS		A
Approach Delay (s)	0.0	2.0
Approach LOS		

Intersection Summary			
Average Delay	0.5		
Intersection Capacity Utilization	57.2%	ICU Level of Service	B
Analysis Period (min)	15		

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Volume (veh/h)	59	491	251	318	0	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	64	534	273	346	0	0
Pedestrians		10	10		10	
Lane Width (ft)		12.0	12.0		0.0	
Walking Speed (ft/s)		4.0	4.0		4.0	
Percent Blockage		1	1		0	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)			1274			
pX, platoon unblocked	0.78				0.78	0.78
vC, conflicting volume	628				1128	466
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	522				1164	312
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	92				100	100
cM capacity (veh/h)	811				152	561

Direction, Lane #	EB 1	WB 1
Volume Total	598	618
Volume Left	64	0
Volume Right	0	346
cSH	811	1700
Volume to Capacity	0.08	0.36
Queue Length 95th (ft)	6	0
Control Delay (s)	2.1	0.0
Lane LOS	A	
Approach Delay (s)	2.1	0.0
Approach LOS		

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	78.5%	ICU Level of Service	D
Analysis Period (min)	15		

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Volume (veh/h)	491	0	0	534	35	38
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	534	0	0	580	38	41
Pedestrians	10			10	10	
Lane Width (ft)	12.0			12.0	12.0	
Walking Speed (ft/s)	4.0			4.0	4.0	
Percent Blockage	1			1	1	
Right turn flare (veh)						
Median type					None	
Median storage veh)						
Upstream signal (ft)				1004		
pX, platoon unblocked					0.77	
vC, conflicting volume			544		1134	554
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			544		1174	554
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		76	92
cM capacity (veh/h)			1017		160	523

Direction, Lane #	EB 1	WB 1	NB 1
Volume Total	534	580	79
Volume Left	0	0	38
Volume Right	0	0	41
cSH	1700	1700	251
Volume to Capacity	0.31	0.34	0.32
Queue Length 95th (ft)	0	0	33
Control Delay (s)	0.0	0.0	25.8
Lane LOS			D
Approach Delay (s)	0.0	0.0	25.8
Approach LOS			D

Intersection Summary			
Average Delay	1.7		
Intersection Capacity Utilization	42.0%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00		0.99	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.98		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1766	3475		1766	3462		1760	3539	1557	1770	3539	1539
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1766	3475		1766	3462		1760	3539	1557	1770	3539	1539
Volume (vph)	23	432	52	10	467	71	29	160	10	65	255	29
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	25	470	57	11	508	77	32	174	11	71	277	32
RTOR Reduction (vph)	0	10	0	0	13	0	0	0	8	0	0	22
Lane Group Flow (vph)	25	517	0	11	572	0	32	174	3	71	277	10
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	0.7	13.4		0.7	13.4		0.7	11.5	11.5	2.3	13.1	13.1
Effective Green, g (s)	0.7	13.9		0.7	13.9		0.7	12.0	12.0	2.3	13.6	13.6
Actuated g/C Ratio	0.02	0.31		0.02	0.31		0.02	0.27	0.27	0.05	0.30	0.30
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	28	1076		28	1072		27	946	416	91	1072	466
v/s Ratio Prot	c0.01	0.15		0.01	c0.17		0.02	0.05		c0.04	c0.08	
v/s Ratio Perm									0.00			0.01
v/c Ratio	0.89	0.48		0.39	0.53		1.19	0.18	0.01	0.78	0.26	0.02
Uniform Delay, d1	22.1	12.6		21.9	12.8		22.1	12.7	12.1	21.1	11.8	11.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	123.8	0.3		8.9	0.5		234.8	0.1	0.0	34.1	0.1	0.0
Delay (s)	145.8	12.9		30.8	13.3		256.9	12.8	12.1	55.1	12.0	11.0
Level of Service	F	B		C	B		F	B	B	E	B	B
Approach Delay (s)		18.9			13.7			48.7			19.9	
Approach LOS		B			B			D			B	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	44.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	44.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Year 2035 Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.98	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	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1553	3433	3539	1532	3433	1863	1553	1770	1797	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1553	3433	3539	1532	3433	1863	1553	1770	1797	
Volume (vph)	34	592	110	283	1217	39	26	45	83	73	133	35
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	643	120	308	1323	42	28	49	90	79	145	38
RTOR Reduction (vph)	0	0	75	0	0	21	0	0	73	0	12	0
Lane Group Flow (vph)	37	643	45	308	1323	21	28	49	17	79	171	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	2.4	24.7	24.7	9.6	31.9	31.9	2.1	12.0	12.0	4.2	14.1	
Effective Green, g (s)	2.4	25.2	25.2	9.6	32.4	32.4	2.1	12.5	12.5	4.2	14.6	
Actuated g/C Ratio	0.04	0.37	0.37	0.14	0.48	0.48	0.03	0.19	0.19	0.06	0.22	
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	63	1321	580	488	1699	735	107	345	288	110	389	
v/s Ratio Prot	0.02	0.18		c0.09	c0.37		0.01	0.03		c0.04	c0.10	
v/s Ratio Perm			0.03			0.01			0.01			
v/c Ratio	0.59	0.49	0.08	0.63	0.78	0.03	0.26	0.14	0.06	0.72	0.44	
Uniform Delay, d1	32.1	16.2	13.6	27.3	14.6	9.3	31.9	23.0	22.7	31.1	22.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	13.2	0.3	0.1	2.7	2.3	0.0	1.3	0.2	0.1	20.0	0.8	
Delay (s)	45.3	16.5	13.7	29.9	16.9	9.3	33.2	23.2	22.7	51.0	23.7	
Level of Service	D	B	B	C	B	A	C	C	C	D	C	
Approach Delay (s)		17.4			19.1			24.6			31.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.3%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Volume (vph)	28	521	80	151	1155	36	160	131	195	66	293	69
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	566	87	164	1255	39	174	142	212	72	318	75
RTOR Reduction (vph)	0	0	52	0	0	21	0	0	163	0	0	60
Lane Group Flow (vph)	30	566	35	164	1255	18	174	142	49	72	318	15
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	2.2	27.3	27.3	5.9	31.0	31.0	6.0	15.6	15.6	4.0	13.6	13.6
Effective Green, g (s)	2.2	27.8	27.8	5.9	31.5	31.5	6.0	16.1	16.1	4.0	14.1	14.1
Actuated g/C Ratio	0.03	0.40	0.40	0.08	0.45	0.45	0.09	0.23	0.23	0.06	0.20	0.20
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	108	1410	618	290	1597	700	295	816	358	197	715	314
v/s Ratio Prot	0.01	0.16		c0.05	c0.35		c0.05	0.04		0.02	c0.09	
v/s Ratio Perm			0.02			0.01			0.03			0.01
v/c Ratio	0.28	0.40	0.06	0.57	0.79	0.03	0.59	0.17	0.14	0.37	0.44	0.05
Uniform Delay, d1	33.0	15.0	12.9	30.7	16.3	10.6	30.7	21.5	21.3	31.7	24.4	22.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.2	0.0	2.5	2.6	0.0	3.0	0.1	0.2	1.2	0.4	0.1
Delay (s)	34.4	15.2	13.0	33.2	18.9	10.6	33.7	21.6	21.5	32.8	24.9	22.5
Level of Service	C	B	B	C	B	B	C	C	C	C	C	C
Approach Delay (s)		15.8			20.3			25.6			25.7	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	69.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1556	1770	3539	1770	1556
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1556	1770	3539	1770	1556
Volume (vph)	10	591	77	62	1207	100	43
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	642	84	67	1312	109	47
RTOR Reduction (vph)	0	0	44	0	0	0	37
Lane Group Flow (vph)	11	642	40	67	1312	109	10
Confl. Peds. (#/hr)	10		10	10		10	10
Turn Type	Prot		Perm	Prot			Perm
Protected Phases	7	4		3	8	2	
Permitted Phases			4				2
Actuated Green, G (s)	0.8	22.3	22.3	2.3	23.8	10.2	10.2
Effective Green, g (s)	1.3	22.8	22.8	2.8	24.3	10.7	10.7
Actuated g/C Ratio	0.03	0.47	0.47	0.06	0.50	0.22	0.22
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	48	1671	735	103	1780	392	345
v/s Ratio Prot	0.01	0.18		c0.04	c0.37	c0.06	
v/s Ratio Perm			0.03				0.01
v/c Ratio	0.23	0.38	0.05	0.65	0.74	0.28	0.03
Uniform Delay, d1	23.0	8.2	6.9	22.3	9.5	15.6	14.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	2.4	0.1	0.0	13.8	1.6	0.4	0.0
Delay (s)	25.4	8.4	6.9	36.0	11.1	16.0	14.8
Level of Service	C	A	A	D	B	B	B
Approach Delay (s)		8.5			12.3	15.6	
Approach LOS		A			B	B	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1553	1770	3539	1553	1770	3539	1553	1770	3539	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1553	1770	3539	1553	1770	3539	1553	1770	3539	1553
Volume (vph)	54	143	22	97	174	92	15	69	44	63	186	28
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	155	24	105	189	100	16	75	48	68	202	30
RTOR Reduction (vph)	0	0	19	0	0	76	0	0	29	0	0	17
Lane Group Flow (vph)	59	155	5	105	189	24	16	75	19	68	202	13
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.1	12.4	12.4	5.8	15.1	15.1	1.1	24.5	24.5	5.0	28.4	28.4
Effective Green, g (s)	3.1	12.9	12.9	5.8	15.6	15.6	1.1	25.0	25.0	5.0	28.9	28.9
Actuated g/C Ratio	0.05	0.20	0.20	0.09	0.24	0.24	0.02	0.39	0.39	0.08	0.45	0.45
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	85	706	310	159	853	374	30	1367	600	137	1581	694
v/s Ratio Prot	0.03	0.04		c0.06	c0.05		0.01	0.02		c0.04	c0.06	
v/s Ratio Perm			0.00			0.02			0.01			0.01
v/c Ratio	0.69	0.22	0.02	0.66	0.22	0.06	0.53	0.05	0.03	0.50	0.13	0.02
Uniform Delay, d1	30.3	21.7	20.8	28.5	19.7	18.9	31.5	12.4	12.3	28.6	10.5	10.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.7	0.2	0.0	9.8	0.1	0.1	17.0	0.0	0.0	2.8	0.0	0.0
Delay (s)	52.1	21.8	20.8	38.3	19.8	19.0	48.5	12.5	12.3	31.5	10.5	10.0
Level of Service	D	C	C	D	B	B	D	B	B	C	B	B
Approach Delay (s)		29.2			24.5			16.6			15.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	21.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.24		
Actuated Cycle Length (s)	64.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	39.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	3433	3539	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	3433	3539	1770	1583
Volume (vph)	252	51	499	684	59	169
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	55	542	743	64	184
RTOR Reduction (vph)	0	44	0	0	0	143
Lane Group Flow (vph)	274	11	542	743	64	41
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	8.7	8.7	13.9	26.6	9.7	9.7
Effective Green, g (s)	9.2	9.2	13.9	27.1	10.2	10.2
Actuated g/C Ratio	0.20	0.20	0.31	0.60	0.23	0.23
Clearance Time (s)	4.5	4.5	4.0	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	719	321	1053	2117	399	356
v/s Ratio Prot	0.08		c0.16	c0.21	c0.04	
v/s Ratio Perm		0.01				0.03
v/c Ratio	0.38	0.03	0.51	0.35	0.16	0.12
Uniform Delay, d1	15.6	14.5	12.9	4.6	14.1	14.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.3	0.0	0.4	0.1	0.2	0.1
Delay (s)	15.9	14.5	13.4	4.7	14.3	14.1
Level of Service	B	B	B	A	B	B
Approach Delay (s)	15.7			8.4	14.2	
Approach LOS	B			A	B	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	45.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	34.5%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1555	3433	3539	1555	3433	5085	1555	3433	5085	1555
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1555	3433	3539	1555	3433	5085	1555	3433	5085	1555
Volume (vph)	48	176	55	51	423	391	243	294	44	135	561	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	191	60	55	460	425	264	320	48	147	610	98
RTOR Reduction (vph)	0	0	44	0	0	308	0	0	34	0	0	72
Lane Group Flow (vph)	52	191	16	55	460	117	264	320	14	147	610	26
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.3	15.1	15.1	3.3	15.1	15.1	7.1	15.8	15.8	5.6	14.3	14.3
Effective Green, g (s)	3.3	15.6	15.6	3.3	15.6	15.6	7.1	16.3	16.3	5.6	14.8	14.8
Actuated g/C Ratio	0.06	0.27	0.27	0.06	0.27	0.27	0.12	0.29	0.29	0.10	0.26	0.26
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	199	972	427	199	972	427	429	1459	446	338	1325	405
v/s Ratio Prot	0.02	0.05		c0.02	c0.13		c0.08	0.06		0.04	c0.12	
v/s Ratio Perm			0.01			0.08			0.01			0.02
v/c Ratio	0.26	0.20	0.04	0.28	0.47	0.27	0.62	0.22	0.03	0.43	0.46	0.06
Uniform Delay, d1	25.6	15.8	15.1	25.6	17.2	16.2	23.6	15.4	14.6	24.1	17.6	15.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	0.8	0.4	0.3	2.6	0.1	0.0	0.9	0.3	0.1
Delay (s)	26.3	15.9	15.1	26.4	17.5	16.5	26.2	15.5	14.6	25.0	17.9	15.9
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		17.5			17.6			19.9			18.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1556	1770	3539	1770	1556
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1556	1770	3539	1770	1556
Volume (vph)	271	37	245	658	70	157
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	295	40	266	715	76	171
RTOR Reduction (vph)	0	30	0	0	0	134
Lane Group Flow (vph)	295	10	266	715	76	37
Confl. Peds. (#/hr)		10	10		10	10
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	11.3	11.3	13.0	28.3	9.7	9.7
Effective Green, g (s)	11.8	11.8	13.0	28.8	10.2	10.2
Actuated g/C Ratio	0.25	0.25	0.28	0.61	0.22	0.22
Clearance Time (s)	4.5	4.5	4.0	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	889	391	490	2169	384	338
v/s Ratio Prot	0.08		c0.15	c0.20	c0.04	
v/s Ratio Perm		0.01				0.02
v/c Ratio	0.33	0.03	0.54	0.33	0.20	0.11
Uniform Delay, d1	14.4	13.3	14.5	4.4	15.1	14.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.2	0.0	1.2	0.1	0.3	0.1
Delay (s)	14.6	13.3	15.7	4.5	15.3	14.9
Level of Service	B	B	B	A	B	B
Approach Delay (s)	14.4			7.5	15.0	
Approach LOS	B			A	B	

Intersection Summary			
HCM Average Control Delay	10.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	47.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	44.5%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Volume (vph)	111	249	104	100	696	88	112	264	58	104	449	99
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	271	113	109	757	96	122	287	63	113	488	108
RTOR Reduction (vph)	0	0	77	0	0	65	0	0	47	0	0	80
Lane Group Flow (vph)	121	271	36	109	757	31	122	287	16	113	488	28
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.3	19.4	19.4	5.3	19.4	19.4	5.3	15.6	15.6	5.3	15.6	15.6
Effective Green, g (s)	5.3	19.9	19.9	5.3	19.9	19.9	5.3	16.1	16.1	5.3	16.1	16.1
Actuated g/C Ratio	0.08	0.32	0.32	0.08	0.32	0.32	0.08	0.26	0.26	0.08	0.26	0.26
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	291	1125	494	291	1125	494	291	910	400	291	910	400
v/s Ratio Prot	c0.04	0.08		0.03	c0.21		c0.04	0.08		0.03	c0.14	
v/s Ratio Perm			0.02			0.02			0.01			0.02
v/c Ratio	0.42	0.24	0.07	0.37	0.67	0.06	0.42	0.32	0.04	0.39	0.54	0.07
Uniform Delay, d1	27.2	15.8	14.9	27.1	18.5	14.9	27.2	18.8	17.5	27.1	20.0	17.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.1	0.1	0.8	1.6	0.1	1.0	0.2	0.0	0.9	0.6	0.1
Delay (s)	28.1	15.9	15.0	27.9	20.1	14.9	28.2	19.0	17.5	28.0	20.6	17.7
Level of Service	C	B	B	C	C	B	C	B	B	C	C	B
Approach Delay (s)		18.6			20.5			21.2			21.4	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	62.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	55.4%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1533	1770	3539	1533	1770	1863	1553	1770	1863	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1533	1770	3539	1533	1770	1863	1553	1770	1863	1553
Volume (vph)	51	302	66	44	609	19	177	32	26	19	105	102
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	55	328	72	48	662	21	192	35	28	21	114	111
RTOR Reduction (vph)	0	0	53	0	0	15	0	0	17	0	0	84
Lane Group Flow (vph)	55	328	19	48	662	6	192	35	11	21	114	27
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.9	16.6	16.6	3.8	16.5	16.5	11.2	25.0	25.0	1.1	14.9	14.9
Effective Green, g (s)	3.9	17.1	17.1	3.8	17.0	17.0	11.2	25.5	25.5	1.1	15.4	15.4
Actuated g/C Ratio	0.06	0.27	0.27	0.06	0.27	0.27	0.18	0.40	0.40	0.02	0.24	0.24
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	109	953	413	106	947	410	312	748	624	31	452	377
v/s Ratio Prot	c0.03	0.09		0.03	c0.19		c0.11	0.02		0.01	c0.06	
v/s Ratio Perm			0.01			0.00			0.01			0.02
v/c Ratio	0.50	0.34	0.05	0.45	0.70	0.01	0.62	0.05	0.02	0.68	0.25	0.07
Uniform Delay, d1	28.9	18.7	17.2	28.8	20.9	17.1	24.2	11.6	11.5	31.0	19.4	18.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.6	0.2	0.0	3.1	2.3	0.0	3.6	0.0	0.0	45.6	0.3	0.1
Delay (s)	32.5	18.9	17.2	31.9	23.2	17.1	27.7	11.6	11.5	76.7	19.7	18.6
Level of Service	C	B	B	C	C	B	C	B	B	E	B	B
Approach Delay (s)		20.3			23.6			23.7			24.1	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	63.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	50.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	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	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Volume (vph)	16	313	69	14	569	5	56	2	29	10	48	48
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	340	75	15	618	5	61	2	32	11	52	52
RTOR Reduction (vph)	0	0	51	0	0	3	0	0	23	0	0	39
Lane Group Flow (vph)	17	340	24	15	618	2	61	2	9	11	52	13
Confl. Peds. (#/hr)												
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.7	13.6	13.6	0.7	13.6	13.6	2.2	12.0	12.0	0.7	10.5	10.5
Effective Green, g (s)	0.7	14.1	14.1	0.7	14.1	14.1	2.2	12.5	12.5	0.7	11.0	11.0
Actuated g/C Ratio	0.02	0.32	0.32	0.02	0.32	0.32	0.05	0.28	0.28	0.02	0.25	0.25
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	28	1134	507	28	1134	507	89	529	450	28	466	396
v/s Ratio Prot	c0.01	0.10		0.01	c0.17		c0.03	0.00		0.01	c0.03	
v/s Ratio Perm			0.02			0.00			0.01			0.01
v/c Ratio	0.61	0.30	0.05	0.54	0.54	0.00	0.69	0.00	0.02	0.39	0.11	0.03
Uniform Delay, d1	21.5	11.2	10.3	21.5	12.3	10.2	20.6	11.3	11.3	21.4	12.7	12.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	32.0	0.1	0.0	18.3	0.5	0.0	19.7	0.0	0.0	8.9	0.1	0.0
Delay (s)	53.5	11.4	10.4	39.8	12.8	10.2	40.2	11.3	11.4	30.3	12.8	12.5
Level of Service	D	B	B	D	B	B	D	B	B	C	B	B
Approach Delay (s)		12.9			13.5			29.9			14.4	
Approach LOS		B			B			C			B	

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	44.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	32.4%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.98	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	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1555	1770	3539	1583	1770	3539	1555	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1555	1770	3539	1583	1770	3539	1555	1770	3539	1583
Volume (vph)	15	241	64	151	435	15	61	83	102	29	123	25
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	16	262	70	164	473	16	66	90	111	32	134	27
RTOR Reduction (vph)	0	0	50	0	0	10	0	0	84	0	0	21
Lane Group Flow (vph)	16	262	20	164	473	6	66	90	27	32	134	6
Confl. Peds. (#/hr)			10	10			10		10			
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.9	14.6	14.6	7.7	21.4	21.4	3.8	12.7	12.7	2.2	11.1	11.1
Effective Green, g (s)	0.9	15.1	15.1	7.7	21.9	21.9	3.8	13.2	13.2	2.2	11.6	11.6
Actuated g/C Ratio	0.02	0.28	0.28	0.14	0.40	0.40	0.07	0.24	0.24	0.04	0.21	0.21
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	29	986	433	251	1430	640	124	862	379	72	757	339
v/s Ratio Prot	0.01	0.07		c0.09	c0.13		c0.04	0.03		0.02	c0.04	
v/s Ratio Perm			0.01			0.00			0.02			0.00
v/c Ratio	0.55	0.27	0.05	0.65	0.33	0.01	0.53	0.10	0.07	0.44	0.18	0.02
Uniform Delay, d1	26.4	15.2	14.3	22.0	11.1	9.7	24.3	15.9	15.8	25.4	17.4	16.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.8	0.1	0.0	6.0	0.1	0.0	4.3	0.1	0.1	4.3	0.1	0.0
Delay (s)	47.2	15.4	14.3	28.0	11.2	9.7	28.7	16.0	15.9	29.7	17.5	16.8
Level of Service	D	B	B	C	B	A	C	B	B	C	B	B
Approach Delay (s)		16.6			15.4			19.1			19.4	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	16.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	45.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1556	1763	3539	1556	1770	3539	1556	1770	3539	1556
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1556	1763	3539	1556	1770	3539	1556	1770	3539	1556
Volume (vph)	39	232	16	24	255	85	97	92	62	110	107	139
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	252	17	26	277	92	105	100	67	120	116	151
RTOR Reduction (vph)	0	0	13	0	0	72	0	0	45	0	0	102
Lane Group Flow (vph)	42	252	4	26	277	20	105	100	22	120	116	49
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	2.0	11.1	11.1	0.8	9.9	9.9	4.6	15.2	15.2	4.7	15.3	15.3
Effective Green, g (s)	2.0	11.6	11.6	0.8	10.4	10.4	4.6	15.7	15.7	4.7	15.8	15.8
Actuated g/C Ratio	0.04	0.24	0.24	0.02	0.21	0.21	0.09	0.32	0.32	0.10	0.32	0.32
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	73	841	370	29	754	332	167	1139	501	170	1146	504
v/s Ratio Prot	c0.02	0.07		0.01	c0.08		0.06	0.03		c0.07	c0.03	
v/s Ratio Perm			0.00			0.01			0.01			0.03
v/c Ratio	0.58	0.30	0.01	0.90	0.37	0.06	0.63	0.09	0.04	0.71	0.10	0.10
Uniform Delay, d1	23.0	15.3	14.2	24.0	16.4	15.3	21.3	11.6	11.4	21.4	11.5	11.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.5	0.2	0.0	122.2	0.3	0.1	7.2	0.0	0.0	12.5	0.0	0.1
Delay (s)	33.5	15.5	14.2	146.2	16.7	15.4	28.5	11.6	11.4	33.9	11.6	11.6
Level of Service	C	B	B	F	B	B	C	B	B	C	B	B
Approach Delay (s)		17.8			24.9			18.1			18.5	
Approach LOS		B			C			B			B	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.27		
Actuated Cycle Length (s)	48.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.3%	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												
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	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	0.95				1.00	0.97	1.00	1.00
Frpb, ped/bikes		1.00	0.97	1.00	1.00				0.98	1.00	1.00	0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00	0.99	1.00	1.00
Frt		1.00	0.85	1.00	1.00				0.86	1.00	1.00	0.85
Flt Protected		1.00	1.00	0.95	1.00				1.00	0.95	1.00	1.00
Satd. Flow (prot)		3539	1532	1770	3539				1580	3407	0	1552
Flt Permitted		1.00	1.00	0.95	1.00				1.00	0.95	1.00	1.00
Satd. Flow (perm)		3539	1532	1770	3539				1580	3407	0	1552
Volume (vph)	0	1245	41	38	1200	0	0	0	46	233	42	320
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1353	45	41	1304	0	0	0	50	253	46	348
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	33	0	0	29
Lane Group Flow (vph)	0	1353	20	41	1304	0	0	0	17	253	46	319
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			Perm	Prot					custom	Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases			4						2	6		6
Actuated Green, G (s)		29.7	29.7	4.0	37.7				22.5	22.5	22.5	22.5
Effective Green, g (s)		30.2	30.2	4.0	38.2				23.0	23.0	23.0	23.0
Actuated g/C Ratio		0.44	0.44	0.06	0.55				0.33	0.33	0.33	0.33
Clearance Time (s)		4.5	4.5	4.0	4.5				4.5	4.5	4.5	4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0				3.0	3.0	3.0	3.0
Lane Grp Cap (vph)		1544	669	102	1954				525	1132	0	516
v/s Ratio Prot		c0.38		0.02	c0.37							
v/s Ratio Perm			0.01						0.01	0.07		c0.21
v/c Ratio		0.88	0.03	0.40	0.67				0.03	0.22	no cap	0.62
Uniform Delay, d1		17.8	11.1	31.4	11.0				15.6	16.7	Error	19.4
Progression Factor		1.00	1.00	1.00	1.00				1.00	1.00		1.00
Incremental Delay, d2		5.9	0.0	2.6	0.9				0.0	0.1	Error	2.2
Delay (s)		23.7	11.2	34.0	11.9				15.6	16.8	Error	21.6
Level of Service		C	B	C	B				B	B	F	C
Approach Delay (s)		23.3			12.5			15.6			Error	
Approach LOS		C			B			B			F	

Intersection Summary			
HCM Average Control Delay	Error	HCM Level of Service	F
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	69.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1550	1770	3539	1550	3433	3539	1550	1770	3539	2728
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1550	1770	3539	1550	3433	3539	1550	1770	3539	2728
Volume (vph)	185	949	294	233	995	172	180	299	182	80	499	426
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	1032	320	253	1082	187	196	325	198	87	542	463
RTOR Reduction (vph)	0	0	177	0	0	123	0	0	145	0	0	337
Lane Group Flow (vph)	201	1032	143	253	1082	64	196	325	53	87	542	126
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	10.1	26.6	26.6	11.1	27.6	27.6	7.8	21.6	21.6	6.2	20.0	20.0
Effective Green, g (s)	10.1	27.1	27.1	11.1	28.1	28.1	7.8	22.1	22.1	6.2	20.5	20.5
Actuated g/C Ratio	0.12	0.33	0.33	0.13	0.34	0.34	0.09	0.27	0.27	0.08	0.25	0.25
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	217	1163	509	238	1205	528	325	948	415	133	879	678
v/s Ratio Prot	0.11	0.29		c0.14	c0.31		c0.06	0.09		0.05	c0.15	
v/s Ratio Perm			0.09			0.04			0.03			0.05
v/c Ratio	0.93	0.89	0.28	1.06	0.90	0.12	0.60	0.34	0.13	0.65	0.62	0.19
Uniform Delay, d1	35.8	26.3	20.5	35.7	25.8	18.7	35.9	24.3	22.9	37.1	27.5	24.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	40.8	8.4	0.3	76.0	9.0	0.1	3.1	0.2	0.1	11.0	1.3	0.1
Delay (s)	76.6	34.7	20.8	111.7	34.9	18.8	39.0	24.6	23.0	48.1	28.8	24.6
Level of Service	E	C	C	F	C	B	D	C	C	D	C	C
Approach Delay (s)		37.3			45.7			28.1			28.5	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	36.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	82.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.9%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	0.99	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.96	
Flt Protected	1.00			1.00	0.97	
Satd. Flow (prot)	3539			3539	1715	
Flt Permitted	1.00			1.00	0.97	
Satd. Flow (perm)	3539			3539	1715	
Volume (vph)	889	0	0	1199	296	135
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	966	0	0	1303	322	147
RTOR Reduction (vph)	0	0	0	0	28	0
Lane Group Flow (vph)	966	0	0	1303	441	0
Confl. Peds. (#/hr)		10	10		10	10
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	24.0			24.0	17.6	
Effective Green, g (s)	24.5			24.5	18.1	
Actuated g/C Ratio	0.48			0.48	0.36	
Clearance Time (s)	4.5			4.5	4.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1714			1714	613	
v/s Ratio Prot	0.27			c0.37	c0.26	
v/s Ratio Perm						
v/c Ratio	0.56			0.76	0.72	
Uniform Delay, d1	9.3			10.7	14.1	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	0.4			2.0	4.0	
Delay (s)	9.7			12.7	18.1	
Level of Service	A			B	B	
Approach Delay (s)	9.7			12.7	18.1	
Approach LOS	A			B	B	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	50.6	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.8%	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												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3375		1770	3470		3433	3539	1552	1770	3539	1552
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3375		1770	3470		3433	3539	1552	1770	3539	1552
Volume (vph)	54	635	240	89	740	97	359	253	16	107	318	43
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	690	261	97	804	105	390	275	17	116	346	47
RTOR Reduction (vph)	0	42	0	0	10	0	0	0	12	0	0	37
Lane Group Flow (vph)	59	909	0	97	899	0	390	275	5	116	346	10
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	4.2	24.2		5.8	25.8		11.1	19.6	19.6	6.5	15.0	15.0
Effective Green, g (s)	4.2	24.7		5.8	26.3		11.1	20.1	20.1	6.5	15.5	15.5
Actuated g/C Ratio	0.06	0.34		0.08	0.36		0.15	0.27	0.27	0.09	0.21	0.21
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	102	1140		140	1248		521	973	427	157	750	329
v/s Ratio Prot	0.03	c0.27		c0.05	0.26		c0.11	0.08		0.07	c0.10	
v/s Ratio Perm									0.00			0.01
v/c Ratio	0.58	0.80		0.69	0.72		0.75	0.28	0.01	0.74	0.46	0.03
Uniform Delay, d1	33.6	21.9		32.8	20.2		29.7	20.8	19.3	32.5	25.2	22.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.7	4.0		13.8	2.1		5.8	0.2	0.0	16.5	0.5	0.0
Delay (s)	41.3	25.9		46.6	22.3		35.5	21.0	19.3	49.0	25.6	22.9
Level of Service	D	C		D	C		D	C	B	D	C	C
Approach Delay (s)		26.8			24.6			29.2			30.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	73.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.7%	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												
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	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.98	1.00	1.00		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1811		1770	1863	1549	1770	1827		1770	1863	1549
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1811		1770	1863	1549	1770	1827		1770	1863	1549
Volume (vph)	143	479	93	82	516	102	122	317	37	101	450	262
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	155	521	101	89	561	111	133	345	40	110	489	285
RTOR Reduction (vph)	0	8	0	0	0	74	0	5	0	0	0	197
Lane Group Flow (vph)	155	614	0	89	561	37	133	380	0	110	489	88
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	8.1	30.5		6.1	28.5	28.5	8.1	28.0		6.1	26.0	26.0
Effective Green, g (s)	8.1	31.0		6.1	29.0	29.0	8.1	28.5		6.1	26.5	26.5
Actuated g/C Ratio	0.09	0.35		0.07	0.33	0.33	0.09	0.32		0.07	0.30	0.30
Clearance Time (s)	4.0	4.5		4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	163	640		123	616	512	163	594		123	563	468
v/s Ratio Prot	c0.09	c0.34		0.05	0.30		c0.08	0.21		0.06	c0.26	
v/s Ratio Perm						0.02						0.06
v/c Ratio	0.95	0.96		0.72	0.91	0.07	0.82	0.64		0.89	0.87	0.19
Uniform Delay, d1	39.6	27.7		40.0	28.1	20.1	39.1	25.2		40.5	29.0	22.6
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	55.8	25.6		18.9	17.7	0.1	25.9	2.4		49.8	13.4	0.2
Delay (s)	95.4	53.3		58.9	45.8	20.2	65.0	27.6		90.3	42.3	22.8
Level of Service	F	D		E	D	C	E	C		F	D	C
Approach Delay (s)		61.7			43.6			37.2			42.0	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM Average Control Delay	46.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	87.7	Sum of lost time (s)	12.0
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												
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	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.98			1.00			0.96			0.96	
Flt Protected		1.00			1.00			0.98			0.99	
Satd. Flow (prot)		1819			1849			1738			1751	
Flt Permitted		0.91			0.98			0.83			0.89	
Satd. Flow (perm)		1666			1807			1468			1578	
Volume (vph)	43	375	56	23	585	22	61	33	39	40	64	47
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	408	61	25	636	24	66	36	42	43	70	51
RTOR Reduction (vph)	0	6	0	0	2	0	0	29	0	0	32	0
Lane Group Flow (vph)	0	510	0	0	683	0	0	115	0	0	132	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		20.5			20.5			10.5			10.5	
Effective Green, g (s)		21.0			21.0			11.0			11.0	
Actuated g/C Ratio		0.52			0.52			0.28			0.28	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		875			949			404			434	
v/s Ratio Prot												
v/s Ratio Perm		0.31			c0.38			0.08			c0.08	
v/c Ratio		0.58			0.72			0.28			0.30	
Uniform Delay, d1		6.5			7.3			11.4			11.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		1.0			2.6			0.4			0.4	
Delay (s)		7.5			9.9			11.8			11.9	
Level of Service		A			A			B			B	
Approach Delay (s)		7.5			9.9			11.8			11.9	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.9%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1555	1770	3539	1583	1770	3539	1536
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1555	1770	3539	1583	1770	3539	1536
Volume (vph)	37	256	59	34	390	78	136	199	10	79	227	98
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	40	278	64	37	424	85	148	216	11	86	247	107
RTOR Reduction (vph)	0	0	48	0	0	65	0	0	7	0	0	80
Lane Group Flow (vph)	40	278	16	37	424	20	148	216	4	86	247	27
Confl. Peds. (#/hr)	10					10				10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	2.5	12.8	12.8	2.2	12.5	12.5	9.1	17.9	17.9	4.3	13.1	13.1
Effective Green, g (s)	2.5	13.3	13.3	2.2	13.0	13.0	9.1	18.4	18.4	4.3	13.6	13.6
Actuated g/C Ratio	0.05	0.25	0.25	0.04	0.24	0.24	0.17	0.34	0.34	0.08	0.25	0.25
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	82	868	388	72	849	373	297	1201	537	140	888	385
v/s Ratio Prot	c0.02	0.08		0.02	c0.12		c0.08	0.06		0.05	c0.07	
v/s Ratio Perm			0.01			0.01			0.00			0.02
v/c Ratio	0.49	0.32	0.04	0.51	0.50	0.05	0.50	0.18	0.01	0.61	0.28	0.07
Uniform Delay, d1	25.2	16.7	15.6	25.5	17.8	15.9	20.5	12.6	11.9	24.1	16.3	15.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.5	0.2	0.0	6.1	0.5	0.1	1.3	0.1	0.0	7.8	0.2	0.1
Delay (s)	29.7	17.0	15.6	31.5	18.3	15.9	21.8	12.7	11.9	31.9	16.5	15.6
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		18.1			18.8			16.2			19.3	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	49.2%	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												
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	
Lane Util. Factor			0.88					0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98					1.00	0.97	1.00	1.00	
Flpb, ped/bikes			1.00					1.00	1.00	1.00	1.00	
Frt			0.85					1.00	0.85	1.00	1.00	
Flt Protected			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2733					3539	1532	1770	3539	
Flt Permitted			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2733					3539	1532	1770	3539	
Volume (vph)	0	0	444	0	0	0	0	888	45	396	485	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	483	0	0	0	0	965	49	430	527	0
RTOR Reduction (vph)	0	0	416	0	0	0	0	0	31	0	0	0
Lane Group Flow (vph)	0	0	67	0	0	0	0	965	18	430	527	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			custom						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)			8.9					23.8	23.8	21.7	50.0	
Effective Green, g (s)			9.4					24.3	24.3	22.2	50.5	
Actuated g/C Ratio			0.14					0.36	0.36	0.33	0.74	
Clearance Time (s)			4.5					4.5	4.5	4.5	4.5	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			378					1267	548	579	2632	
v/s Ratio Prot								c0.27		c0.24	0.15	
v/s Ratio Perm			c0.02						0.01			
v/c Ratio			0.18					0.76	0.03	0.74	0.20	
Uniform Delay, d1			25.8					19.2	14.2	20.3	2.6	
Progression Factor			1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2			0.2					2.8	0.0	5.1	0.0	
Delay (s)			26.1					22.0	14.2	25.4	2.7	
Level of Service			C					C	B	C	A	
Approach Delay (s)		26.1			0.0			21.6			12.9	
Approach LOS		C			A			C			B	

Intersection Summary			
HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	67.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.2%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1551	1770	1863	1551	1770	5085	1529	1770	5085	1529
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1551	1770	1863	1551	1770	5085	1529	1770	5085	1529
Volume (vph)	95	58	42	36	67	141	70	773	42	124	517	176
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	103	63	46	39	73	153	76	840	46	135	562	191
RTOR Reduction (vph)	0	0	36	0	0	127	0	0	27	0	0	102
Lane Group Flow (vph)	103	63	10	39	73	26	76	840	19	135	562	89
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.6	17.2	17.2	3.3	12.9	12.9	5.8	33.1	33.1	9.2	36.5	36.5
Effective Green, g (s)	7.6	17.7	17.7	3.3	13.4	13.4	5.8	33.6	33.6	9.2	37.0	37.0
Actuated g/C Ratio	0.10	0.22	0.22	0.04	0.17	0.17	0.07	0.42	0.42	0.12	0.46	0.46
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	169	413	344	73	313	260	129	2141	644	204	2358	709
v/s Ratio Prot	c0.06	0.03		0.02	c0.04		0.04	c0.17		c0.08	c0.11	
v/s Ratio Perm			0.01			0.02			0.01			0.06
v/c Ratio	0.61	0.15	0.03	0.53	0.23	0.10	0.59	0.39	0.03	0.66	0.24	0.12
Uniform Delay, d1	34.7	25.0	24.3	37.5	28.8	28.1	35.8	16.0	13.5	33.8	12.9	12.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.1	0.2	0.0	7.3	0.4	0.2	6.7	0.1	0.0	7.8	0.1	0.1
Delay (s)	40.8	25.2	24.4	44.8	29.1	28.3	42.6	16.1	13.6	41.6	13.0	12.3
Level of Service	D	C	C	D	C	C	D	B	B	D	B	B
Approach Delay (s)		32.6			30.9			18.1			17.2	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	79.8	Sum of lost time (s)	20.0
Intersection Capacity Utilization	48.9%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	47	227	24	14	262	12	39	43	37	82	54	48
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
Hourly flow rate (vph)	52	249	26	15	288	13	43	47	41	90	59	53

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	176	151	159	157	131	202
Volume Left (vph)	52	0	15	0	43	90
Volume Right (vph)	0	26	0	13	41	53
Hadj (s)	0.18	-0.09	0.08	-0.02	-0.09	-0.03
Departure Headway (s)	6.2	5.9	6.1	6.0	5.8	5.7
Degree Utilization, x	0.30	0.25	0.27	0.26	0.21	0.32
Capacity (veh/h)	552	579	560	571	550	578
Control Delay (s)	10.6	9.6	10.1	9.8	10.4	11.4
Approach Delay (s)	10.1		10.0		10.4	11.4
Approach LOS	B		A		B	B

Intersection Summary			
Delay	10.4		
HCM Level of Service	B		
Intersection Capacity Utilization	45.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1554	3433	3539	1554	3433	5085	1534	3433	5085	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1554	3433	3539	1554	3433	5085	1534	3433	5085	1554
Volume (vph)	118	193	24	87	255	86	119	643	97	44	468	93
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	128	210	26	95	277	93	129	699	105	48	509	101
RTOR Reduction (vph)	0	0	21	0	0	76	0	0	61	0	0	64
Lane Group Flow (vph)	128	210	5	95	277	17	129	699	44	48	509	37
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.4	11.8	11.8	3.8	10.2	10.2	5.5	24.6	24.6	2.3	21.4	21.4
Effective Green, g (s)	5.9	12.3	12.3	4.3	10.7	10.7	5.5	25.1	25.1	2.3	21.9	21.9
Actuated g/C Ratio	0.10	0.21	0.21	0.07	0.18	0.18	0.09	0.42	0.42	0.04	0.36	0.36
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	338	725	319	246	631	277	315	2127	642	132	1856	567
v/s Ratio Prot	c0.04	0.06		0.03	c0.08		c0.04	c0.14		0.01	0.10	
v/s Ratio Perm			0.00			0.01			0.03			0.02
v/c Ratio	0.38	0.29	0.02	0.39	0.44	0.06	0.41	0.33	0.07	0.36	0.27	0.07
Uniform Delay, d1	25.3	20.2	19.0	26.6	22.0	20.5	25.7	11.8	10.4	28.1	13.4	12.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.2	0.0	1.0	0.5	0.1	0.9	0.1	0.0	1.7	0.1	0.0
Delay (s)	26.0	20.4	19.0	27.6	22.5	20.6	26.6	11.9	10.5	29.8	13.5	12.4
Level of Service	C	C	B	C	C	C	C	B	B	C	B	B
Approach Delay (s)		22.3			23.1			13.7			14.5	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	46.7%	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												
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
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99			1.00	0.98
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			0.99			0.93			1.00	0.85
Flt Protected		1.00			0.99			0.99			0.97	1.00
Satd. Flow (prot)		1831			1819			1690			1807	1558
Flt Permitted		0.99			0.91			0.90			0.73	1.00
Satd. Flow (perm)		1807			1661			1533			1349	1558
Volume (vph)	11	383	47	55	340	47	51	58	135	102	71	7
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	12	435	53	62	386	53	58	66	153	116	81	8
RTOR Reduction (vph)	0	7	0	0	7	0	0	80	0	0	0	5
Lane Group Flow (vph)	0	493	0	0	494	0	0	197	0	0	197	3
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)		16.3			16.3			11.9			11.9	11.9
Effective Green, g (s)		16.8			16.8			12.4			12.4	12.4
Actuated g/C Ratio		0.45			0.45			0.33			0.33	0.33
Clearance Time (s)		4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		816			750			511			450	519
v/s Ratio Prot												
v/s Ratio Perm		0.27			c0.30			0.13			c0.15	0.00
v/c Ratio		0.60			0.66			0.39			0.44	0.01
Uniform Delay, d1		7.7			8.0			9.5			9.7	8.3
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		1.3			2.1			0.5			0.7	0.0
Delay (s)		9.0			10.1			10.0			10.4	8.3
Level of Service		A			B			A			B	A
Approach Delay (s)		9.0			10.1			10.0			10.3	
Approach LOS		A			B			A			B	

Intersection Summary			
HCM Average Control Delay	9.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	37.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.1%	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												
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
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		1.00		1.00	1.00						1.00	0.97
Flpb, ped/bikes		1.00		1.00	1.00						0.99	1.00
Frt		0.98		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3472		1770	3539						1759	1536
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3472		1770	3539						1759	1536
Volume (vph)	0	688	81	182	469	0	0	0	0	221	0	41
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	782	92	207	533	0	0	0	0	251	0	47
RTOR Reduction (vph)	0	12	0	0	0	0	0	0	0	0	0	35
Lane Group Flow (vph)	0	862	0	207	533	0	0	0	0	0	251	12
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type				Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases										6		6
Actuated Green, G (s)		19.2		7.9	31.6						13.6	13.6
Effective Green, g (s)		19.7		8.4	32.1						14.1	14.1
Actuated g/C Ratio		0.36		0.15	0.59						0.26	0.26
Clearance Time (s)		4.5		4.5	4.5						4.5	4.5
Vehicle Extension (s)		3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		1262		274	2096						458	400
v/s Ratio Prot		c0.25		c0.12	0.15							
v/s Ratio Perm											0.14	0.01
v/c Ratio		0.68		0.76	0.25						0.55	0.03
Uniform Delay, d1		14.6		21.9	5.3						17.3	15.0
Progression Factor		1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2		1.5		11.2	0.1						1.3	0.0
Delay (s)		16.2		33.2	5.4						18.6	15.0
Level of Service		B		C	A						B	B
Approach Delay (s)		16.2			13.1			0.0			18.1	
Approach LOS		B			B			A			B	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	54.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.9%	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												
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			
Lane Util. Factor		0.95			0.95			1.00	1.00			
Frpb, ped/bikes		1.00			0.99			1.00	0.98			
Flpb, ped/bikes		1.00			1.00			0.99	1.00			
Frt		1.00			0.95			1.00	0.85			
Flt Protected		0.99			1.00			0.95	1.00			
Satd. Flow (prot)		3497			3328			1758	1554			
Flt Permitted		0.57			1.00			0.95	1.00			
Satd. Flow (perm)		2013			3328			1758	1554			
Volume (vph)	206	699	0	0	609	304	42	0	233	0	0	0
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	234	794	0	0	692	345	48	0	265	0	0	0
RTOR Reduction (vph)	0	0	0	0	58	0	0	0	124	0	0	0
Lane Group Flow (vph)	0	1028	0	0	979	0	0	48	141	0	0	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		38.7			38.7			11.6	11.6			
Effective Green, g (s)		39.2			39.2			12.1	12.1			
Actuated g/C Ratio		0.66			0.66			0.20	0.20			
Clearance Time (s)		4.5			4.5			4.5	4.5			
Vehicle Extension (s)		3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)		1331			2200			359	317			
v/s Ratio Prot					0.29							
v/s Ratio Perm		c0.51						0.03	c0.09			
v/c Ratio		0.95dl			0.44			0.13	0.44			
Uniform Delay, d1		7.0			4.8			19.3	20.7			
Progression Factor		1.00			1.00			1.00	1.00			
Incremental Delay, d2		2.8			0.1			0.2	1.0			
Delay (s)		9.8			5.0			19.5	21.7			
Level of Service		A			A			B	C			
Approach Delay (s)		9.8			5.0			21.3			0.0	
Approach LOS		A			A			C			A	

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	59.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.0%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	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	1.00	
Frt	1.00	0.96		1.00	0.99		1.00	0.98		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3357		1770	3493		1770	3453		1770	3483	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3357		1770	3493		1770	3453		1770	3483	
Volume (vph)	104	698	296	259	589	48	302	518	85	92	570	58
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	759	322	282	640	52	328	563	92	100	620	63
RTOR Reduction (vph)	0	43	0	0	5	0	0	11	0	0	7	0
Lane Group Flow (vph)	113	1038	0	282	687	0	328	644	0	100	676	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	11.1	31.1		16.0	36.0		19.0	35.5		8.9	25.4	
Effective Green, g (s)	11.1	31.6		16.0	36.5		19.0	36.0		8.9	25.9	
Actuated g/C Ratio	0.10	0.29		0.15	0.34		0.18	0.33		0.08	0.24	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	181	978		261	1175		310	1146		145	831	
v/s Ratio Prot	0.06	c0.31		c0.16	0.20		c0.19	0.19		0.06	c0.19	
v/s Ratio Perm												
v/c Ratio	0.62	1.06		1.08	0.58		1.06	0.56		0.69	0.81	
Uniform Delay, d1	46.7	38.5		46.2	29.7		44.8	29.8		48.5	39.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.6	46.7		78.8	0.7		67.2	0.6		12.8	6.1	
Delay (s)	53.3	85.1		125.0	30.5		112.0	30.4		61.3	45.2	
Level of Service	D	F		F	C		F	C		E	D	
Approach Delay (s)		82.1			57.9			57.6			47.2	
Approach LOS		F			E			E			D	

Intersection Summary			
HCM Average Control Delay	63.0	HCM Level of Service	E
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	108.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	92.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	55	288	45	43	218	8	19	14	13	52	39	62
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
Hourly flow rate (vph)	62	327	51	49	248	9	22	16	15	59	44	70

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	441	306	52	174
Volume Left (vph)	63	49	22	59
Volume Right (vph)	51	9	15	70
Hadj (s)	-0.01	0.05	-0.05	-0.14
Departure Headway (s)	5.0	5.3	6.1	5.8
Degree Utilization, x	0.62	0.45	0.09	0.28
Capacity (veh/h)	689	650	483	555
Control Delay (s)	15.8	12.4	9.7	11.0
Approach Delay (s)	15.8	12.4	9.7	11.0
Approach LOS	C	B	A	B

Intersection Summary			
Delay	13.5		
HCM Level of Service	B		
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	72	123	96	85	163	46	29	187	22	36	383	31
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	78	134	104	92	177	50	32	203	24	39	416	34
RTOR Reduction (vph)	0	0	88	0	0	40	0	0	13	0	0	18
Lane Group Flow (vph)	78	134	16	92	177	10	32	203	11	39	416	16
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.1	9.5	9.5	5.9	12.3	12.3	2.7	30.4	30.4	2.7	30.4	30.4
Effective Green, g (s)	3.6	10.0	10.0	6.4	12.8	12.8	3.2	30.9	30.9	3.2	30.9	30.9
Actuated g/C Ratio	0.05	0.15	0.15	0.10	0.19	0.19	0.05	0.46	0.46	0.05	0.46	0.46
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	96	532	238	170	681	305	85	1644	736	85	1644	736
v/s Ratio Prot	c0.04	0.04		0.05	c0.05		0.02	0.06		c0.02	c0.12	
v/s Ratio Perm			0.01			0.01			0.01			0.01
v/c Ratio	0.81	0.25	0.07	0.54	0.26	0.03	0.38	0.12	0.02	0.46	0.25	0.02
Uniform Delay, d1	31.1	24.9	24.2	28.7	22.8	21.8	30.7	10.1	9.6	30.8	10.8	9.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	38.8	0.3	0.1	3.5	0.2	0.0	2.8	0.0	0.0	3.9	0.1	0.0
Delay (s)	69.9	25.2	24.4	32.1	23.0	21.9	33.5	10.1	9.6	34.7	10.9	9.6
Level of Service	E	C	C	C	C	C	C	B	A	C	B	A
Approach Delay (s)		35.9			25.5			13.0			12.7	
Approach LOS		D			C			B			B	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.31		
Actuated Cycle Length (s)	66.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	35.7%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Volume (vph)	97	479	39	71	214	129	50	640	121	87	493	56
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	521	42	77	233	140	54	696	132	95	536	61
RTOR Reduction (vph)	0	0	30	0	0	103	0	0	90	0	0	41
Lane Group Flow (vph)	105	521	12	77	233	37	54	696	42	95	536	20
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.4	17.4	17.4	3.5	15.5	15.5	3.3	18.7	18.7	3.6	19.0	19.0
Effective Green, g (s)	5.4	17.9	17.9	3.5	16.0	16.0	3.3	19.2	19.2	3.6	19.5	19.5
Actuated g/C Ratio	0.09	0.30	0.30	0.06	0.27	0.27	0.05	0.32	0.32	0.06	0.32	0.32
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	308	1052	462	200	941	413	188	1129	496	205	1146	503
v/s Ratio Prot	c0.03	c0.15		0.02	0.07		0.02	c0.20		c0.03	0.15	
v/s Ratio Perm			0.01			0.02			0.03			0.01
v/c Ratio	0.34	0.50	0.03	0.39	0.25	0.09	0.29	0.62	0.08	0.46	0.47	0.04
Uniform Delay, d1	25.7	17.4	15.0	27.3	17.4	16.6	27.3	17.4	14.4	27.4	16.2	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.4	0.0	1.2	0.1	0.1	0.8	1.0	0.1	1.7	0.3	0.0
Delay (s)	26.4	17.8	15.0	28.5	17.5	16.7	28.2	18.4	14.4	29.0	16.5	14.0
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		19.0			19.2			18.4			18.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.9%	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												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.99		1.00	0.93		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3509		1770	3504		1770	1711		1770	1754	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3509		1770	3504		1770	1711		1770	1754	
Volume (vph)	24	506	26	39	391	23	69	108	103	115	48	26
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	550	28	42	425	25	75	117	112	125	52	28
RTOR Reduction (vph)	0	4	0	0	5	0	0	41	0	0	20	0
Lane Group Flow (vph)	26	574	0	42	445	0	75	188	0	125	60	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	1.9	14.9		2.0	15.0		3.9	12.6		4.7	13.4	
Effective Green, g (s)	1.9	15.4		2.0	15.5		3.9	13.1		4.7	13.9	
Actuated g/C Ratio	0.04	0.30		0.04	0.30		0.08	0.26		0.09	0.27	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	66	1055		69	1061		135	438		162	476	
v/s Ratio Prot	0.01	c0.16		c0.02	0.13		0.04	c0.11		c0.07	0.03	
v/s Ratio Perm												
v/c Ratio	0.39	0.54		0.61	0.42		0.56	0.43		0.77	0.13	
Uniform Delay, d1	24.1	15.0		24.2	14.3		22.8	15.9		22.7	14.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	3.8	0.6		14.3	0.3		4.9	0.7		20.0	0.1	
Delay (s)	27.9	15.5		38.5	14.5		27.7	16.6		42.8	14.2	
Level of Service	C	B		D	B		C	B		D	B	
Approach Delay (s)		16.1			16.6			19.3			31.6	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	51.2	Sum of lost time (s)	16.0
Intersection Capacity Utilization	55.4%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Volume (vph)	120	616	66	275	381	133	58	177	111	120	213	68
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	670	72	299	414	145	63	192	121	130	232	74
RTOR Reduction (vph)	0	0	50	0	0	91	0	0	97	0	0	57
Lane Group Flow (vph)	130	670	22	299	414	54	63	192	24	130	232	17
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.6	18.4	18.4	10.0	22.8	22.8	3.7	11.9	11.9	5.6	13.8	13.8
Effective Green, g (s)	5.6	18.9	18.9	10.0	23.3	23.3	3.7	12.4	12.4	5.6	14.3	14.3
Actuated g/C Ratio	0.09	0.30	0.30	0.16	0.37	0.37	0.06	0.20	0.20	0.09	0.23	0.23
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	306	1063	467	546	1311	575	202	698	306	306	805	353
v/s Ratio Prot	0.04	c0.19		c0.09	0.12		0.02	0.05		c0.04	c0.07	
v/s Ratio Perm			0.01			0.03			0.02			0.01
v/c Ratio	0.42	0.63	0.05	0.55	0.32	0.09	0.31	0.28	0.08	0.42	0.29	0.05
Uniform Delay, d1	27.1	19.0	15.6	24.4	14.1	12.9	28.4	21.4	20.6	27.1	20.1	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	1.2	0.0	1.1	0.1	0.1	0.9	0.2	0.1	1.0	0.2	0.1
Delay (s)	28.1	20.2	15.6	25.5	14.3	13.0	29.3	21.6	20.7	28.1	20.3	19.0
Level of Service	C	C	B	C	B	B	C	C	C	C	C	B
Approach Delay (s)		21.0			18.0			22.6			22.4	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	62.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.7%	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												
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
Lane Util. Factor		0.95	1.00	1.00	0.95					1.00		1.00
Frpb, ped/bikes		1.00	0.97	1.00	1.00					1.00		0.98
Flpb, ped/bikes		1.00	1.00	1.00	1.00					0.99		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1530	1770	3539					1755		1551
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1530	1770	3539					1755		1551
Volume (vph)	0	1133	219	161	964	0	0	0	0	410	0	591
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1232	238	175	1048	0	0	0	0	446	0	642
RTOR Reduction (vph)	0	0	151	0	0	0	0	0	0	0	0	46
Lane Group Flow (vph)	0	1232	87	175	1048	0	0	0	0	446	0	596
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			Perm	Prot						custom		custom
Protected Phases		4		3	8							
Permitted Phases			4							6		6
Actuated Green, G (s)		27.0	27.0	7.5	39.0					27.0		27.0
Effective Green, g (s)		27.5	27.5	8.0	39.5					27.5		27.5
Actuated g/C Ratio		0.37	0.37	0.11	0.53					0.37		0.37
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1298	561	189	1864					644		569
v/s Ratio Prot		c0.35		c0.10	0.30							
v/s Ratio Perm			0.06							0.25		c0.38
v/c Ratio		0.95	0.16	0.93	0.56					0.69		1.05
Uniform Delay, d1		23.1	16.0	33.2	11.9					20.2		23.8
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		14.4	0.1	44.5	0.4					3.2		50.6
Delay (s)		37.4	16.1	77.7	12.3					23.4		74.4
Level of Service		D	B	E	B					C		E
Approach Delay (s)		34.0			21.7			0.0			53.5	
Approach LOS		C			C			A			D	

Intersection Summary			
HCM Average Control Delay	35.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	73.0%	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												
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			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		0.98			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	0.99		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1758		1554			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1758		1554			
Volume (vph)	201	1330	0	0	800	552	307	0	245	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	218	1446	0	0	870	600	334	0	266	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	378	0	0	18	0	0	0
Lane Group Flow (vph)	218	1446	0	0	870	222	334	0	248	0	0	0
Confl. Peds. (#/hr)			10	10			10		10			
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	7.9	33.8			21.4	21.4	16.4		16.4			
Effective Green, g (s)	8.4	34.3			21.9	21.9	16.9		16.9			
Actuated g/C Ratio	0.14	0.58			0.37	0.37	0.29		0.29			
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5		4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	251	2050			1309	586	502		444			
v/s Ratio Prot	c0.12	c0.41			0.25							
v/s Ratio Perm						0.14	c0.19		0.16			
v/c Ratio	0.87	0.71			0.66	0.38	0.67		0.56			
Uniform Delay, d1	24.9	8.9			15.6	13.7	18.7		18.0			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	25.6	1.1			1.3	0.4	3.3		1.5			
Delay (s)	50.5	10.0			16.9	14.1	22.0		19.5			
Level of Service	D	A			B	B	C		B			
Approach Delay (s)		15.3			15.7			20.9			0.0	
Approach LOS		B			B			C			A	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	59.2	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Volume (vph)	402	901	223	66	833	149	262	415	134	154	270	255
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	437	979	242	72	905	162	285	451	146	167	293	277
RTOR Reduction (vph)	0	0	138	0	0	107	0	0	114	0	0	174
Lane Group Flow (vph)	437	979	104	72	905	55	285	451	32	167	293	103
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.2	32.0	32.0	4.1	24.9	24.9	8.2	16.3	16.3	6.1	14.2	14.2
Effective Green, g (s)	11.2	32.5	32.5	4.1	25.4	25.4	8.2	16.8	16.8	6.1	14.7	14.7
Actuated g/C Ratio	0.15	0.43	0.43	0.05	0.34	0.34	0.11	0.22	0.22	0.08	0.19	0.19
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	509	1523	668	186	1191	522	373	1131	345	277	990	302
v/s Ratio Prot	c0.13	0.28		0.02	c0.26		c0.08	c0.09		0.05	0.06	
v/s Ratio Perm			0.07			0.04			0.02			0.07
v/c Ratio	0.86	0.64	0.16	0.39	0.76	0.10	0.76	0.40	0.09	0.60	0.30	0.34
Uniform Delay, d1	31.4	16.9	13.1	34.5	22.3	17.2	32.7	25.0	23.3	33.5	26.0	26.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.5	0.9	0.1	1.3	2.8	0.1	9.0	0.2	0.1	3.7	0.2	0.7
Delay (s)	44.8	17.9	13.2	35.8	25.2	17.3	41.7	25.3	23.4	37.2	26.1	26.9
Level of Service	D	B	B	D	C	B	D	C	C	D	C	C
Approach Delay (s)		24.3			24.7			30.3			28.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.4%	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												
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
Lane Util. Factor		0.95	1.00	1.00	0.95					1.00		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1583	1770	3539					1770		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1583	1770	3539					1770		1583
Volume (vph)	0	352	90	57	848	0	0	0	0	42	0	329
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	383	98	62	922	0	0	0	0	46	0	358
RTOR Reduction (vph)	0	0	63	0	0	0	0	0	0	0	0	74
Lane Group Flow (vph)	0	383	35	62	922	0	0	0	0	46	0	284
Turn Type			Perm	Prot						custom		custom
Protected Phases		4		3	8							
Permitted Phases			4							6		6
Actuated Green, G (s)		15.1	15.1	2.3	21.4					12.9		12.9
Effective Green, g (s)		15.6	15.6	2.3	21.9					13.4		13.4
Actuated g/C Ratio		0.36	0.36	0.05	0.51					0.31		0.31
Clearance Time (s)		4.5	4.5	4.0	4.5					4.5		4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1275	570	94	1790					548		490
v/s Ratio Prot		0.11		0.04	c0.26							
v/s Ratio Perm			0.02							0.03		c0.18
v/c Ratio		0.30	0.06	0.66	0.52					0.08		0.58
Uniform Delay, d1		9.9	9.1	20.1	7.2					10.6		12.6
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		0.1	0.0	15.5	0.3					0.1		1.7
Delay (s)		10.1	9.1	35.6	7.4					10.7		14.2
Level of Service		B	A	D	A					B		B
Approach Delay (s)		9.9			9.2			0.0			13.8	
Approach LOS		A			A			A			B	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	43.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	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												
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			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1770		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1770		1583			
Volume (vph)	54	344	0	0	689	105	216	0	416	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	374	0	0	749	114	235	0	452	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	73	0	0	306	0	0	0
Lane Group Flow (vph)	59	374	0	0	749	41	235	0	146	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	3.6	23.7			16.1	16.1	13.3		13.3			
Effective Green, g (s)	3.6	24.2			16.6	16.6	13.8		13.8			
Actuated g/C Ratio	0.08	0.53			0.36	0.36	0.30		0.30			
Clearance Time (s)	4.0	4.5			4.5	4.5	4.5		4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	139	1862			1277	571	531		475			
v/s Ratio Prot	c0.03	0.11			c0.21							
v/s Ratio Perm						0.03	c0.13		0.09			
v/c Ratio	0.42	0.20			0.59	0.07	0.44		0.31			
Uniform Delay, d1	20.2	5.8			11.9	9.6	13.0		12.4			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	2.1	0.1			0.7	0.1	0.6		0.4			
Delay (s)	22.3	5.8			12.6	9.7	13.6		12.8			
Level of Service	C	A			B	A	B		B			
Approach Delay (s)		8.1			12.2			13.1			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	46.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	50.5%	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												
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	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.96	1.00	1.00	0.98	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	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1549	3433	3539	1526	3433	1863	1549	1770	1791	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1549	3433	3539	1526	3433	1863	1549	1770	1791	
Volume (vph)	123	1284	82	119	819	118	109	142	557	24	144	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	1396	89	129	890	128	118	154	605	26	157	46
RTOR Reduction (vph)	0	0	45	0	0	76	0	0	180	0	11	0
Lane Group Flow (vph)	134	1396	44	129	890	52	118	154	425	26	192	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.1	38.5	38.5	5.9	36.3	36.3	5.9	26.4	26.4	2.7	23.2	
Effective Green, g (s)	8.1	39.0	39.0	5.9	36.8	36.8	5.9	26.9	26.9	2.7	23.7	
Actuated g/C Ratio	0.09	0.43	0.43	0.07	0.41	0.41	0.07	0.30	0.30	0.03	0.26	
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	158	1525	668	224	1439	621	224	554	460	53	469	
v/s Ratio Prot	c0.08	c0.39		0.04	0.25		c0.03	0.08		0.01	0.11	
v/s Ratio Perm			0.03			0.03			c0.27			
v/c Ratio	0.85	0.92	0.07	0.58	0.62	0.08	0.53	0.28	0.92	0.49	0.41	
Uniform Delay, d1	40.6	24.2	15.1	41.1	21.3	16.5	40.9	24.4	30.8	43.2	27.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	32.2	8.9	0.0	3.6	0.8	0.1	2.2	0.3	24.3	7.0	0.6	
Delay (s)	72.8	33.1	15.1	44.6	22.1	16.6	43.2	24.6	55.1	50.2	28.2	
Level of Service	E	C	B	D	C	B	D	C	E	D	C	
Approach Delay (s)		35.4			24.0			48.1			30.7	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM Average Control Delay	34.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1548	3433	3539	1548	3433	3539	1548	3433	3539	1548
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1548	3433	3539	1548	3433	3539	1548	3433	3539	1548
Volume (vph)	104	1321	200	279	880	96	124	455	213	117	248	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1436	217	303	957	104	135	495	232	127	270	33
RTOR Reduction (vph)	0	0	106	0	0	55	0	0	140	0	0	26
Lane Group Flow (vph)	113	1436	111	303	957	49	135	495	92	127	270	7
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.1	40.0	40.0	9.0	42.9	42.9	7.7	19.1	19.1	7.6	19.0	19.0
Effective Green, g (s)	6.1	40.5	40.5	9.0	43.4	43.4	7.7	19.6	19.6	7.6	19.5	19.5
Actuated g/C Ratio	0.07	0.44	0.44	0.10	0.47	0.47	0.08	0.21	0.21	0.08	0.21	0.21
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226	1546	676	333	1657	725	285	748	327	281	744	326
v/s Ratio Prot	0.03	c0.41		c0.09	c0.27		c0.04	c0.14		0.04	0.08	
v/s Ratio Perm			0.07			0.03			0.06			0.00
v/c Ratio	0.50	0.93	0.16	0.91	0.58	0.07	0.47	0.66	0.28	0.45	0.36	0.02
Uniform Delay, d1	41.8	24.7	15.8	41.4	18.0	13.5	40.6	33.5	30.7	40.6	31.3	29.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	10.1	0.1	27.4	0.5	0.0	1.2	2.2	0.5	1.2	0.3	0.0
Delay (s)	43.6	34.8	15.9	68.8	18.5	13.6	41.8	35.7	31.1	41.7	31.6	29.1
Level of Service	D	C	B	E	B	B	D	D	C	D	C	C
Approach Delay (s)		33.1			29.3			35.4			34.4	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM Average Control Delay	32.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	92.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBU	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations							
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1770	3539	1553	1770	3539	1770	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1770	3539	1553	1770	3539	1770	1553
Volume (vph)	10	1455	135	41	927	91	84
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1582	147	45	1008	99	91
RTOR Reduction (vph)	0	0	63	0	0	0	75
Lane Group Flow (vph)	11	1582	84	45	1008	99	16
Confl. Peds. (#/hr)	10		10	10		10	10
Turn Type	Prot		Perm	Prot			Perm
Protected Phases	7	4		3	8	2	
Permitted Phases			4				2
Actuated Green, G (s)	1.0	36.4	36.4	3.6	39.0	11.2	11.2
Effective Green, g (s)	1.5	36.9	36.9	4.1	39.5	11.7	11.7
Actuated g/C Ratio	0.02	0.57	0.57	0.06	0.61	0.18	0.18
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	41	2018	886	112	2161	320	281
v/s Ratio Prot	0.01	c0.45		c0.03	c0.28	c0.06	
v/s Ratio Perm			0.05				0.01
v/c Ratio	0.27	0.78	0.10	0.40	0.47	0.31	0.06
Uniform Delay, d1	31.1	10.8	6.3	29.1	6.9	23.0	21.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.5	2.1	0.0	2.4	0.2	0.6	0.1
Delay (s)	34.6	12.9	6.4	31.5	7.0	23.5	22.0
Level of Service	C	B	A	C	A	C	C
Approach Delay (s)		12.5			8.1	22.8	
Approach LOS		B			A	C	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	64.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	57.7%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1761	3539	1555	1762	3539	1555	1770	3539	1555	1770	3539	1555
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1761	3539	1555	1762	3539	1555	1770	3539	1555	1770	3539	1555
Volume (vph)	27	192	15	23	92	55	49	135	174	81	55	38
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	209	16	25	100	60	53	147	189	88	60	41
RTOR Reduction (vph)	0	0	13	0	0	50	0	0	103	0	0	22
Lane Group Flow (vph)	29	209	3	25	100	10	53	147	86	88	60	19
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.9	8.0	8.0	0.9	8.0	8.0	2.8	23.6	23.6	3.2	24.0	24.0
Effective Green, g (s)	0.9	8.5	8.5	0.9	8.5	8.5	2.8	24.1	24.1	3.2	24.5	24.5
Actuated g/C Ratio	0.02	0.16	0.16	0.02	0.16	0.16	0.05	0.46	0.46	0.06	0.46	0.46
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	30	571	251	30	571	251	94	1618	711	107	1645	723
v/s Ratio Prot	c0.02	c0.06		0.01	0.03		0.03	0.04		c0.05	0.02	
v/s Ratio Perm			0.00			0.01			c0.06			0.01
v/c Ratio	0.97	0.37	0.01	0.83	0.18	0.04	0.56	0.09	0.12	0.82	0.04	0.03
Uniform Delay, d1	25.9	19.7	18.6	25.8	19.1	18.7	24.4	8.1	8.2	24.5	7.7	7.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	149.0	0.4	0.0	95.9	0.1	0.1	7.5	0.0	0.1	37.7	0.0	0.0
Delay (s)	174.9	20.1	18.6	121.7	19.2	18.7	31.9	8.1	8.3	62.2	7.7	7.7
Level of Service	F	C	B	F	B	B	C	A	A	E	A	A
Approach Delay (s)		37.7			32.9			11.4			33.0	
Approach LOS		D			C			B			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.26		
Actuated Cycle Length (s)	52.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	40.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	0.97	0.95	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1583	3433	3539	1770	1583
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1583	3433	3539	1770	1583
Volume (vph)	868	94	476	626	89	575
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	943	102	517	680	97	625
RTOR Reduction (vph)	0	67	0	0	0	268
Lane Group Flow (vph)	943	35	517	680	97	357
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	22.1	22.1	12.9	39.0	18.0	18.0
Effective Green, g (s)	22.6	22.6	12.9	39.5	18.5	18.5
Actuated g/C Ratio	0.34	0.34	0.20	0.60	0.28	0.28
Clearance Time (s)	4.5	4.5	4.0	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1212	542	671	2118	496	444
v/s Ratio Prot	c0.27		c0.15	0.19	0.05	
v/s Ratio Perm		0.02				c0.23
v/c Ratio	0.78	0.06	0.77	0.32	0.20	0.80
Uniform Delay, d1	19.5	14.6	25.1	6.6	18.1	22.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.2	0.1	5.5	0.1	0.2	10.2
Delay (s)	22.7	14.6	30.6	6.7	18.3	32.2
Level of Service	C	B	C	A	B	C
Approach Delay (s)	21.9			17.0	30.4	
Approach LOS	C			B	C	

Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	66.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	66.3%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Volume (vph)	177	566	199	30	220	213	180	1124	115	386	1116	83
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	615	216	33	239	232	196	1222	125	420	1213	90
RTOR Reduction (vph)	0	0	154	0	0	178	0	0	86	0	0	59
Lane Group Flow (vph)	192	615	62	33	239	54	196	1222	39	420	1213	31
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.8	21.8	21.8	3.6	17.6	17.6	8.3	23.4	23.4	11.3	26.4	26.4
Effective Green, g (s)	7.8	22.3	22.3	3.6	18.1	18.1	8.3	23.9	23.9	11.3	26.9	26.9
Actuated g/C Ratio	0.10	0.29	0.29	0.05	0.23	0.23	0.11	0.31	0.31	0.15	0.35	0.35
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	347	1024	449	160	831	364	370	1576	481	503	1774	541
v/s Ratio Prot	c0.06	c0.17		0.01	0.07		0.06	c0.24		c0.12	c0.24	
v/s Ratio Perm			0.04			0.04			0.02			0.02
v/c Ratio	0.55	0.60	0.14	0.21	0.29	0.15	0.53	0.78	0.08	0.83	0.68	0.06
Uniform Delay, d1	33.0	23.6	20.3	35.4	24.2	23.4	32.6	24.2	18.8	32.0	21.5	16.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	1.0	0.1	0.6	0.2	0.2	1.4	2.5	0.1	11.4	1.1	0.0
Delay (s)	34.9	24.6	20.4	36.0	24.4	23.6	33.9	26.6	18.9	43.4	22.6	16.7
Level of Service	C	C	C	D	C	C	C	C	B	D	C	B
Approach Delay (s)		25.6			24.8			26.9			27.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	67.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	0.98	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3539	1555	1770	3539	1770	1555
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3539	1555	1770	3539	1770	1555
Volume (vph)	753	167	261	244	98	237
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	818	182	284	265	107	258
RTOR Reduction (vph)	0	120	0	0	0	206
Lane Group Flow (vph)	818	62	284	265	107	52
Confl. Peds. (#/hr)		10	10		10	10
Turn Type		Perm	Prot			Perm
Protected Phases	4		3	8	2	
Permitted Phases		4				2
Actuated Green, G (s)	18.7	18.7	13.6	36.3	10.7	10.7
Effective Green, g (s)	19.2	19.2	13.6	36.8	11.2	11.2
Actuated g/C Ratio	0.34	0.34	0.24	0.66	0.20	0.20
Clearance Time (s)	4.5	4.5	4.0	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1213	533	430	2326	354	311
v/s Ratio Prot	c0.23		c0.16	0.07	c0.06	
v/s Ratio Perm		0.04				0.03
v/c Ratio	0.67	0.12	0.66	0.11	0.30	0.17
Uniform Delay, d1	15.7	12.6	19.1	3.6	19.1	18.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.5	0.1	3.8	0.0	0.5	0.3
Delay (s)	17.2	12.7	22.9	3.6	19.6	18.8
Level of Service	B	B	C	A	B	B
Approach Delay (s)	16.4			13.6	19.0	
Approach LOS	B			B	B	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	56.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	56.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Volume (vph)	211	769	109	88	363	84	150	556	104	116	399	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	229	836	118	96	395	91	163	604	113	126	434	173
RTOR Reduction (vph)	0	0	79	0	0	63	0	0	82	0	0	125
Lane Group Flow (vph)	229	836	39	96	395	28	163	604	31	126	434	48
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.1	22.1	22.1	5.2	20.2	20.2	5.5	18.3	18.3	5.4	18.2	18.2
Effective Green, g (s)	7.1	22.6	22.6	5.2	20.7	20.7	5.5	18.8	18.8	5.4	18.7	18.7
Actuated g/C Ratio	0.10	0.33	0.33	0.08	0.30	0.30	0.08	0.28	0.28	0.08	0.27	0.27
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	1176	516	263	1077	473	278	978	429	273	973	427
v/s Ratio Prot	c0.07	c0.24		0.03	0.11		c0.05	c0.17		0.04	0.12	
v/s Ratio Perm			0.03			0.02			0.02			0.03
v/c Ratio	0.64	0.71	0.08	0.37	0.37	0.06	0.59	0.62	0.07	0.46	0.45	0.11
Uniform Delay, d1	29.2	19.8	15.5	29.8	18.5	16.7	30.2	21.5	18.2	29.9	20.4	18.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.7	2.1	0.1	0.9	0.2	0.1	3.1	1.2	0.1	1.2	0.3	0.1
Delay (s)	33.0	21.9	15.6	30.7	18.7	16.8	33.3	22.6	18.2	31.1	20.7	18.6
Level of Service	C	C	B	C	B	B	C	C	B	C	C	B
Approach Delay (s)		23.4			20.4			24.0			22.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	68.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1532	1770	3539	1532	1770	1863	1553	1770	1863	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1532	1770	3539	1532	1770	1863	1553	1770	1863	1553
Volume (vph)	165	695	180	96	299	30	181	95	21	25	50	64
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	179	755	196	104	325	33	197	103	23	27	54	70
RTOR Reduction (vph)	0	0	132	0	0	24	0	0	16	0	0	56
Lane Group Flow (vph)	179	755	64	104	325	9	197	103	7	27	54	14
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.4	21.7	21.7	6.1	18.4	18.4	10.4	20.5	20.5	2.5	12.6	12.6
Effective Green, g (s)	9.4	22.2	22.2	6.1	18.9	18.9	10.4	21.0	21.0	2.5	13.1	13.1
Actuated g/C Ratio	0.14	0.33	0.33	0.09	0.28	0.28	0.15	0.31	0.31	0.04	0.19	0.19
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	1159	502	159	987	427	272	577	481	65	360	300
v/s Ratio Prot	c0.10	c0.21		0.06	0.09		c0.11	c0.06		0.02	0.03	
v/s Ratio Perm			0.04			0.01			0.00			0.01
v/c Ratio	0.73	0.65	0.13	0.65	0.33	0.02	0.72	0.18	0.01	0.42	0.15	0.05
Uniform Delay, d1	28.0	19.5	16.0	29.8	19.4	17.7	27.3	17.1	16.2	31.9	22.7	22.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.7	1.3	0.1	9.3	0.2	0.0	9.2	0.1	0.0	4.3	0.2	0.1
Delay (s)	38.6	20.8	16.1	39.1	19.6	17.8	36.5	17.2	16.2	36.2	22.9	22.3
Level of Service	D	C	B	D	B	B	D	B	B	D	C	C
Approach Delay (s)		22.8			23.9			28.9			25.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	67.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.8%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	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	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	1863	1583	1770	1863	1583
Volume (vph)	56	555	82	33	307	34	111	4	22	5	10	24
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	603	89	36	334	37	121	4	24	5	11	26
RTOR Reduction (vph)	0	0	60	0	0	26	0	0	17	0	0	20
Lane Group Flow (vph)	61	603	29	36	334	11	121	4	7	5	11	6
Confl. Peds. (#/hr)												
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.6	16.5	16.5	2.1	15.0	15.0	4.6	15.3	15.3	0.7	11.4	11.4
Effective Green, g (s)	3.6	17.0	17.0	2.1	15.5	15.5	4.6	15.8	15.8	0.7	11.9	11.9
Actuated g/C Ratio	0.07	0.33	0.33	0.04	0.30	0.30	0.09	0.31	0.31	0.01	0.23	0.23
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	123	1166	522	72	1063	476	158	570	485	24	430	365
v/s Ratio Prot	c0.03	c0.17		0.02	0.09		c0.07	0.00		0.00	c0.01	
v/s Ratio Perm			0.02			0.01			c0.00			0.00
v/c Ratio	0.50	0.52	0.06	0.50	0.31	0.02	0.77	0.01	0.02	0.21	0.03	0.02
Uniform Delay, d1	23.1	14.0	11.8	24.2	13.9	12.7	23.0	12.4	12.5	25.2	15.4	15.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.1	0.4	0.0	5.4	0.2	0.0	19.6	0.0	0.0	4.3	0.0	0.0
Delay (s)	26.3	14.4	11.9	29.6	14.1	12.7	42.6	12.5	12.5	29.5	15.4	15.3
Level of Service	C	B	B	C	B	B	D	B	B	C	B	B
Approach Delay (s)		15.0			15.4			36.9			17.0	
Approach LOS		B			B			D			B	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.35		
Actuated Cycle Length (s)	51.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	41.5%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.98	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	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1555	1770	3539	1583	1770	3539	1555	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1555	1770	3539	1583	1770	3539	1555	1770	3539	1583
Volume (vph)	21	463	51	117	241	25	81	199	134	22	139	18
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	23	503	55	127	262	27	88	216	146	24	151	20
RTOR Reduction (vph)	0	0	38	0	0	16	0	0	105	0	0	15
Lane Group Flow (vph)	23	503	17	127	262	11	88	216	41	24	151	5
Confl. Peds. (#/hr)			10	10			10		10			
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	0.9	16.8	16.8	6.8	22.7	22.7	3.9	15.3	15.3	0.9	12.3	12.3
Effective Green, g (s)	0.9	17.3	17.3	6.8	23.2	23.2	3.9	15.8	15.8	0.9	12.8	12.8
Actuated g/C Ratio	0.02	0.30	0.30	0.12	0.41	0.41	0.07	0.28	0.28	0.02	0.23	0.23
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	28	1078	474	212	1446	647	122	984	433	28	798	357
v/s Ratio Prot	0.01	c0.14		c0.07	0.07		c0.05	c0.06		0.01	0.04	
v/s Ratio Perm			0.01			0.01			0.03			0.00
v/c Ratio	0.82	0.47	0.04	0.60	0.18	0.02	0.72	0.22	0.09	0.86	0.19	0.01
Uniform Delay, d1	27.9	16.0	13.9	23.7	10.7	10.0	25.9	15.8	15.2	27.9	17.8	17.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	96.0	0.3	0.0	4.5	0.1	0.0	18.9	0.1	0.1	108.8	0.1	0.0
Delay (s)	123.8	16.3	13.9	28.2	10.8	10.0	44.8	15.9	15.3	136.7	17.9	17.1
Level of Service	F	B	B	C	B	B	D	B	B	F	B	B
Approach Delay (s)		20.4			16.1			21.3			32.5	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	49.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1553	1770	3539	1553	1770	3539	1553	1770	3539	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1553	1770	3539	1553	1770	3539	1553	1770	3539	1553
Volume (vph)	177	388	49	59	384	247	59	100	66	171	257	93
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	422	53	64	417	268	64	109	72	186	279	101
RTOR Reduction (vph)	0	0	35	0	0	200	0	0	58	0	0	73
Lane Group Flow (vph)	192	422	18	64	417	68	64	109	14	186	279	28
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	9.4	20.9	20.9	4.3	15.8	15.8	4.3	12.3	12.3	9.4	17.4	17.4
Effective Green, g (s)	9.4	21.4	21.4	4.3	16.3	16.3	4.3	12.8	12.8	9.4	17.9	17.9
Actuated g/C Ratio	0.15	0.33	0.33	0.07	0.26	0.26	0.07	0.20	0.20	0.15	0.28	0.28
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	260	1185	520	119	903	396	119	709	311	260	991	435
v/s Ratio Prot	c0.11	0.12		0.04	c0.12		0.04	0.03		c0.11	c0.08	
v/s Ratio Perm			0.01			0.04			0.01			0.02
v/c Ratio	0.74	0.36	0.03	0.54	0.46	0.17	0.54	0.15	0.05	0.72	0.28	0.07
Uniform Delay, d1	26.1	16.0	14.3	28.8	20.1	18.5	28.8	21.1	20.6	26.0	18.0	16.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.4	0.2	0.0	4.6	0.4	0.2	4.6	0.1	0.1	9.0	0.2	0.1
Delay (s)	36.5	16.2	14.3	33.5	20.5	18.8	33.5	21.2	20.7	35.0	18.1	16.9
Level of Service	D	B	B	C	C	B	C	C	C	C	B	B
Approach Delay (s)		21.9			21.0			24.2			23.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	63.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	55.4%	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												
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		4.0
Lane Util. Factor		0.95	1.00	1.00	0.95				1.00	0.97		1.00
Frpb, ped/bikes		1.00	0.96	1.00	1.00				0.97	1.00		0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00				1.00	0.99		1.00
Frt		1.00	0.85	1.00	1.00				0.86	1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00				1.00	0.95		1.00
Satd. Flow (prot)		3539	1517	1770	3539				1571	3387		1544
Flt Permitted		1.00	1.00	0.95	1.00				1.00	0.95		1.00
Satd. Flow (perm)		3539	1517	1770	3539				1571	3387		1544
Volume (vph)	0	2675	106	156	1990	0	0	0	184	412	0	518
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	2908	115	170	2163	0	0	0	200	448	0	563
RTOR Reduction (vph)	0	0	25	0	0	0	0	0	97	0	0	6
Lane Group Flow (vph)	0	2908	90	170	2163	0	0	0	103	448	0	557
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			Perm	Prot					custom	custom		custom
Protected Phases		4		3	8							
Permitted Phases			4						2	6		6
Actuated Green, G (s)		62.5	62.5	9.0	75.5				35.5	35.5		35.5
Effective Green, g (s)		63.0	63.0	9.0	76.0				36.0	36.0		36.0
Actuated g/C Ratio		0.52	0.52	0.08	0.63				0.30	0.30		0.30
Clearance Time (s)		4.5	4.5	4.0	4.5				4.5	4.5		4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0				3.0	3.0		3.0
Lane Grp Cap (vph)		1858	796	133	2241				471	1016		463
v/s Ratio Prot		c0.82		c0.10	0.61							
v/s Ratio Perm			0.06						0.07	0.13		c0.36
v/c Ratio		1.57	0.11	1.28	0.97				0.22	0.44		1.20
Uniform Delay, d1		28.5	14.4	55.5	20.8				31.5	33.9		42.0
Progression Factor		1.00	1.00	1.00	1.00				1.00	1.00		1.00
Incremental Delay, d2		257.0	0.1	170.8	11.9				0.2	0.3		110.2
Delay (s)		285.5	14.5	226.3	32.6				31.7	34.2		152.2
Level of Service		F	B	F	C				C	C		F
Approach Delay (s)		275.2			46.7			31.7			99.9	
Approach LOS		F			D			C			F	

Intersection Summary			
HCM Average Control Delay	159.6	HCM Level of Service	F
HCM Volume to Capacity ratio	1.42		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	1.00	0.95	0.88
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1544	1770	3539	1544	3433	3539	1544	1770	3539	2717
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1544	1770	3539	1544	3433	3539	1544	1770	3539	2717
Volume (vph)	452	2041	609	317	1697	294	355	331	239	164	658	522
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	491	2218	662	345	1845	320	386	360	260	178	715	567
RTOR Reduction (vph)	0	0	117	0	0	108	0	0	181	0	0	338
Lane Group Flow (vph)	491	2218	545	345	1845	212	386	360	79	178	715	229
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	20.0	49.5	49.5	15.0	44.5	44.5	10.0	28.6	28.6	9.0	27.6	27.6
Effective Green, g (s)	20.0	50.0	50.0	15.0	45.0	45.0	10.0	29.1	29.1	9.0	28.1	28.1
Actuated g/C Ratio	0.17	0.42	0.42	0.13	0.38	0.38	0.08	0.24	0.24	0.08	0.24	0.24
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	297	1486	648	223	1337	583	288	865	377	134	835	641
v/s Ratio Prot	c0.28	c0.63		0.19	0.52		c0.11	0.10		0.10	c0.20	
v/s Ratio Perm			0.35			0.14			0.05			0.08
v/c Ratio	1.65	1.49	0.84	1.55	1.38	0.36	1.34	0.42	0.21	1.33	0.86	0.36
Uniform Delay, d1	49.5	34.5	31.0	52.0	37.0	26.7	54.5	37.9	35.8	55.0	43.6	38.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	308.6	225.3	9.6	267.2	175.7	0.4	174.7	0.3	0.3	190.0	8.6	0.3
Delay (s)	358.1	259.8	40.6	319.3	212.8	27.1	229.3	38.2	36.1	245.1	52.2	38.3
Level of Service	F	F	D	F	F	C	F	D	D	F	D	D
Approach Delay (s)		231.1			203.8			111.0			70.3	
Approach LOS		F			F			F			E	

Intersection Summary			
HCM Average Control Delay	180.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	119.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	0.95			0.95	1.00	
Frpb, ped/bikes	1.00			1.00	1.00	
Flpb, ped/bikes	1.00			1.00	1.00	
Frt	1.00			1.00	0.97	
Flt Protected	1.00			1.00	0.96	
Satd. Flow (prot)	3539			3539	1735	
Flt Permitted	1.00			1.00	0.96	
Satd. Flow (perm)	3539			3539	1735	
Volume (vph)	1522	0	0	1655	554	135
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1654	0	0	1799	602	147
RTOR Reduction (vph)	0	0	0	0	6	0
Lane Group Flow (vph)	1654	0	0	1799	743	0
Confl. Peds. (#/hr)		10	10		10	10
Turn Type						
Protected Phases	4			8	2	
Permitted Phases						
Actuated Green, G (s)	54.5			54.5	46.5	
Effective Green, g (s)	55.0			55.0	47.0	
Actuated g/C Ratio	0.50			0.50	0.43	
Clearance Time (s)	4.5			4.5	4.5	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	1770			1770	741	
v/s Ratio Prot	0.47			c0.51	c0.43	
v/s Ratio Perm						
v/c Ratio	0.93			1.02	1.00	
Uniform Delay, d1	25.8			27.5	31.5	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	9.7			25.6	33.6	
Delay (s)	35.5			53.1	65.1	
Level of Service	D			D	E	
Approach Delay (s)	35.5			53.1	65.1	
Approach LOS	D			D	E	

Intersection Summary			
HCM Average Control Delay	48.3	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	91.5%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3425		1770	3519		3433	3539	1544	1770	3539	1544
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3425		1770	3519		3433	3539	1544	1770	3539	1544
Volume (vph)	136	1600	363	177	1019	34	482	431	12	216	602	112
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	148	1739	395	192	1108	37	524	468	13	235	654	122
RTOR Reduction (vph)	0	16	0	0	2	0	0	0	10	0	0	95
Lane Group Flow (vph)	148	2118	0	192	1143	0	524	468	3	235	654	27
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.3	51.5		10.0	49.2		13.0	26.6	26.6	12.0	25.6	25.6
Effective Green, g (s)	12.3	52.0		10.0	49.7		13.0	27.1	27.1	12.0	26.1	26.1
Actuated g/C Ratio	0.11	0.44		0.09	0.42		0.11	0.23	0.23	0.10	0.22	0.22
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	186	1521		151	1494		381	819	357	181	789	344
v/s Ratio Prot	0.08	c0.62		c0.11	0.32		c0.15	0.13		0.13	c0.18	
v/s Ratio Perm									0.00			0.02
v/c Ratio	0.80	1.39		1.27	0.77		1.38	0.57	0.01	1.30	0.83	0.08
Uniform Delay, d1	51.2	32.5		53.5	28.7		52.0	39.9	34.7	52.5	43.4	36.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.5	180.7		163.8	2.4		184.7	1.0	0.0	168.7	7.2	0.1
Delay (s)	71.7	213.2		217.4	31.1		236.8	40.8	34.7	221.2	50.6	36.1
Level of Service	E	F		F	C		F	D	C	F	D	D
Approach Delay (s)		204.1			57.9			142.9			88.5	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM Average Control Delay	137.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	117.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00	0.97	1.00	0.99		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.98		1.00	1.00	0.85	1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1821		1770	1863	1544	1770	1788		1770	1863	1544
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1770	1821		1770	1863	1544	1770	1788		1770	1863	1544
Volume (vph)	475	942	140	67	784	158	137	358	96	148	467	226
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	516	1024	152	73	852	172	149	389	104	161	508	246
RTOR Reduction (vph)	0	4	0	0	0	66	0	8	0	0	0	160
Lane Group Flow (vph)	516	1172	0	73	852	106	149	485	0	161	508	86
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	23.0	58.9		6.4	42.3	42.3	9.0	29.5		9.0	29.5	29.5
Effective Green, g (s)	23.0	59.4		6.4	42.8	42.8	9.0	30.0		9.0	30.0	30.0
Actuated g/C Ratio	0.19	0.49		0.05	0.35	0.35	0.07	0.25		0.07	0.25	0.25
Clearance Time (s)	4.0	4.5		4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	337	895		94	660	547	132	444		132	463	383
v/s Ratio Prot	c0.29	c0.64		0.04	0.46		0.08	0.27		c0.09	c0.27	
v/s Ratio Perm						0.07						0.06
v/c Ratio	1.53	1.31		0.78	1.29	0.19	1.13	1.09		1.22	1.10	0.22
Uniform Delay, d1	48.9	30.7		56.5	39.0	27.0	55.9	45.4		55.9	45.4	36.1
Progression Factor	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	253.5	147.3		32.2	142.1	0.2	117.1	69.8		149.1	70.8	0.3
Delay (s)	302.4	178.0		88.7	181.1	27.2	173.0	115.2		205.0	116.2	36.4
Level of Service	F	F		F	F	C	F	F		F	F	D
Approach Delay (s)		215.9			150.8			128.6			110.4	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	164.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	120.8	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			0.99	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.99			0.97			0.94	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1828			1842			1752			1722	
Flt Permitted		0.87			0.93			0.66			0.91	
Satd. Flow (perm)		1598			1724			1196			1589	
Volume (vph)	78	833	83	32	742	49	84	42	30	27	49	53
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	905	90	35	807	53	91	46	33	29	53	58
RTOR Reduction (vph)	0	2	0	0	2	0	0	9	0	0	25	0
Lane Group Flow (vph)	0	1078	0	0	893	0	0	161	0	0	115	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		70.7			70.7			16.8			16.8	
Effective Green, g (s)		71.2			71.2			17.3			17.3	
Actuated g/C Ratio		0.74			0.74			0.18			0.18	
Clearance Time (s)		4.5			4.5			4.5			4.5	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1179			1272			214			285	
v/s Ratio Prot												
v/s Ratio Perm		c0.67			0.52			c0.13			0.07	
v/c Ratio		0.91			0.70			0.75			0.40	
Uniform Delay, d1		10.2			6.9			37.6			35.0	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		10.9			1.8			13.9			0.9	
Delay (s)		21.0			8.7			51.4			36.0	
Level of Service		C			A			D			D	
Approach Delay (s)		21.0			8.7			51.4			36.0	
Approach LOS		C			A			D			D	

Intersection Summary			
HCM Average Control Delay	19.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	96.5	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.6%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1555	1770	3539	1583	1770	3539	1535
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1555	1770	3539	1583	1770	3539	1535
Volume (vph)	91	601	166	37	633	88	55	308	61	77	335	100
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	99	653	180	40	688	96	60	335	66	84	364	109
RTOR Reduction (vph)	0	0	114	0	0	65	0	0	50	0	0	82
Lane Group Flow (vph)	99	653	66	40	688	31	60	335	16	84	364	27
Confl. Peds. (#/hr)	10					10				10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	4.5	20.2	20.2	2.2	17.9	17.9	3.5	13.4	13.4	3.6	13.5	13.5
Effective Green, g (s)	4.5	20.7	20.7	2.2	18.4	18.4	3.5	13.9	13.9	3.6	14.0	14.0
Actuated g/C Ratio	0.08	0.37	0.37	0.04	0.33	0.33	0.06	0.25	0.25	0.06	0.25	0.25
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	141	1299	581	69	1155	507	110	872	390	113	878	381
v/s Ratio Prot	c0.06	0.18		0.02	c0.19		0.03	0.09		c0.05	c0.10	
v/s Ratio Perm			0.04			0.02			0.01			0.02
v/c Ratio	0.70	0.50	0.11	0.58	0.60	0.06	0.55	0.38	0.04	0.74	0.41	0.07
Uniform Delay, d1	25.3	13.9	11.8	26.6	15.9	13.1	25.7	17.7	16.2	25.9	17.8	16.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	14.6	0.3	0.1	11.3	0.8	0.1	5.4	0.3	0.0	22.9	0.3	0.1
Delay (s)	39.9	14.2	11.9	37.9	16.7	13.1	31.1	18.0	16.2	48.9	18.1	16.3
Level of Service	D	B	B	D	B	B	C	B	B	D	B	B
Approach Delay (s)		16.5			17.3			19.4			22.4	
Approach LOS		B			B			B			C	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	56.4	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.6%	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												
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	
Lane Util. Factor			0.88					0.95	1.00	1.00	0.95	
Frpb, ped/bikes			0.98					1.00	0.96	1.00	1.00	
Flpb, ped/bikes			1.00					1.00	1.00	1.00	1.00	
Frt			0.85					1.00	0.85	1.00	1.00	
Flt Protected			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (prot)			2720					3539	1520	1770	3539	
Flt Permitted			1.00					1.00	1.00	0.95	1.00	
Satd. Flow (perm)			2720					3539	1520	1770	3539	
Volume (vph)	0	0	538	0	0	0	0	1175	90	642	860	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	585	0	0	0	0	1277	98	698	935	0
RTOR Reduction (vph)	0	0	273	0	0	0	0	0	46	0	0	0
Lane Group Flow (vph)	0	0	312	0	0	0	0	1277	52	698	935	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			custom						Perm	Prot		
Protected Phases								2		1	6	
Permitted Phases			4						2			
Actuated Green, G (s)			17.3					39.2	39.2	40.6	84.3	
Effective Green, g (s)			17.8					39.7	39.7	41.1	84.8	
Actuated g/C Ratio			0.16					0.36	0.36	0.37	0.77	
Clearance Time (s)			4.5					4.5	4.5	4.5	4.5	
Vehicle Extension (s)			3.0					3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)			438					1270	546	658	2713	
v/s Ratio Prot								c0.36		c0.39	0.26	
v/s Ratio Perm			c0.11						0.03			
v/c Ratio			0.71					1.01	0.09	1.06	0.34	
Uniform Delay, d1			44.0					35.4	23.5	34.8	4.1	
Progression Factor			1.00					1.00	1.00	1.00	1.00	
Incremental Delay, d2			5.4					26.6	0.1	52.3	0.1	
Delay (s)			49.4					62.0	23.6	87.1	4.2	
Level of Service			D					E	C	F	A	
Approach Delay (s)		49.4			0.0			59.3			39.6	
Approach LOS		D			A			E			D	

Intersection Summary			
HCM Average Control Delay	48.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.7%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.96	1.00	1.00	0.96
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1548	1770	1863	1548	1770	5085	1524	1770	5085	1524
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	1863	1548	1770	1863	1548	1770	5085	1524	1770	5085	1524
Volume (vph)	295	170	136	44	110	198	47	854	69	289	723	285
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	321	185	148	48	120	215	51	928	75	314	786	310
RTOR Reduction (vph)	0	0	100	0	0	181	0	0	55	0	0	181
Lane Group Flow (vph)	321	185	48	48	120	34	51	928	20	314	786	129
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	20.3	30.4	30.4	4.5	14.6	14.6	4.5	24.4	24.4	19.2	39.1	39.1
Effective Green, g (s)	20.3	30.9	30.9	4.5	15.1	15.1	4.5	24.9	24.9	19.2	39.6	39.6
Actuated g/C Ratio	0.21	0.32	0.32	0.05	0.16	0.16	0.05	0.26	0.26	0.20	0.41	0.41
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	376	603	501	83	295	245	83	1326	397	356	2109	632
v/s Ratio Prot	c0.18	0.10		0.03	c0.06		0.03	c0.18		c0.18	0.15	
v/s Ratio Perm			0.03			0.02			0.01			0.08
v/c Ratio	0.85	0.31	0.10	0.58	0.41	0.14	0.61	0.70	0.05	0.88	0.37	0.20
Uniform Delay, d1	36.2	24.3	22.5	44.6	36.2	34.6	44.6	31.9	26.4	37.1	19.4	17.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	16.9	0.3	0.1	9.4	0.9	0.3	12.8	1.6	0.1	21.7	0.1	0.2
Delay (s)	53.1	24.5	22.6	54.0	37.1	34.9	57.4	33.6	26.5	58.7	19.5	18.0
Level of Service	D	C	C	D	D	C	E	C	C	E	B	B
Approach Delay (s)		38.1			38.0			34.2			27.9	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	32.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	95.5	Sum of lost time (s)	16.0
Intersection Capacity Utilization	74.4%	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												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	80	256	16	19	147	82	43	75	86	60	80	44
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
Hourly flow rate (vph)	88	281	18	21	162	90	47	82	95	66	88	48

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1
Volume Total (vph)	229	158	102	171	224	202
Volume Left (vph)	88	0	21	0	47	66
Volume Right (vph)	0	18	0	90	95	48
Hadj (s)	0.23	-0.04	0.14	-0.34	-0.18	-0.04
Departure Headway (s)	6.5	6.2	6.6	6.1	5.9	6.1
Degree Utilization, x	0.41	0.27	0.19	0.29	0.37	0.34
Capacity (veh/h)	524	546	506	546	557	542
Control Delay (s)	12.8	10.3	9.9	10.4	12.2	12.1
Approach Delay (s)	11.8		10.2		12.2	12.1
Approach LOS	B		B		B	B

Intersection Summary			
Delay	11.6		
HCM Level of Service	B		
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1553	3433	3539	1553	3433	5085	1533	3433	5085	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1553	3433	3539	1553	3433	5085	1533	3433	5085	1553
Volume (vph)	126	409	133	108	420	108	72	843	156	149	756	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	445	145	117	457	117	78	916	170	162	822	141
RTOR Reduction (vph)	0	0	109	0	0	88	0	0	115	0	0	92
Lane Group Flow (vph)	137	445	36	117	457	29	78	916	55	162	822	49
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.2	15.3	15.3	5.1	15.2	15.2	3.7	19.9	19.9	5.5	21.7	21.7
Effective Green, g (s)	5.7	15.8	15.8	5.6	15.7	15.7	3.7	20.4	20.4	5.5	22.2	22.2
Actuated g/C Ratio	0.09	0.25	0.25	0.09	0.25	0.25	0.06	0.32	0.32	0.09	0.35	0.35
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	309	883	388	304	878	385	201	1639	494	298	1783	545
v/s Ratio Prot	c0.04	0.13		0.03	c0.13		0.02	c0.18		c0.05	0.16	
v/s Ratio Perm			0.02			0.02			0.04			0.03
v/c Ratio	0.44	0.50	0.09	0.38	0.52	0.08	0.39	0.56	0.11	0.54	0.46	0.09
Uniform Delay, d1	27.3	20.4	18.2	27.2	20.5	18.2	28.7	17.7	15.1	27.7	15.9	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.5	0.1	0.8	0.6	0.1	1.2	0.4	0.1	2.0	0.2	0.1
Delay (s)	28.3	20.8	18.4	28.0	21.1	18.3	30.0	18.1	15.2	29.7	16.1	13.9
Level of Service	C	C	B	C	C	B	C	B	B	C	B	B
Approach Delay (s)		21.8			21.8			18.5			17.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.9%	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												
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
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		1.00			1.00			0.99			1.00	0.98
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.99			1.00			0.93			1.00	0.85
Flt Protected		1.00			0.99			0.99			0.98	1.00
Satd. Flow (prot)		1826			1823			1679			1825	1545
Flt Permitted		0.94			0.58			0.88			0.66	1.00
Satd. Flow (perm)		1727			1072			1500			1224	1545
Volume (vph)	29	598	78	232	523	27	93	82	208	33	53	7
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	33	680	89	264	594	31	106	93	236	38	60	8
RTOR Reduction (vph)	0	4	0	0	1	0	0	39	0	0	0	6
Lane Group Flow (vph)	0	798	0	0	888	0	0	396	0	0	98	2
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)		73.5			73.5			27.5			27.5	27.5
Effective Green, g (s)		74.0			74.0			28.0			28.0	28.0
Actuated g/C Ratio		0.67			0.67			0.25			0.25	0.25
Clearance Time (s)		4.5			4.5			4.5			4.5	4.5
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1162			721			382			312	393
v/s Ratio Prot												
v/s Ratio Perm		0.46			c0.83			c0.26			0.08	0.00
v/c Ratio		0.69			1.23			1.04			0.31	0.01
Uniform Delay, d1		11.0			18.0			41.0			33.2	30.6
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		1.7			116.0			56.0			0.6	0.0
Delay (s)		12.7			134.0			97.0			33.8	30.6
Level of Service		B			F			F			C	C
Approach Delay (s)		12.7			134.0			97.0			33.6	
Approach LOS		B			F			F			C	

Intersection Summary			
HCM Average Control Delay	78.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	119.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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
Lane Util. Factor		0.95		1.00	0.95						1.00	1.00
Frpb, ped/bikes		0.99		1.00	1.00						1.00	0.97
Flpb, ped/bikes		1.00		1.00	1.00						0.99	1.00
Frt		0.97		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.95	1.00
Satd. Flow (prot)		3427		1770	3539						1758	1534
Flt Permitted		1.00		0.95	1.00						0.95	1.00
Satd. Flow (perm)		3427		1770	3539						1758	1534
Volume (vph)	0	758	162	177	715	0	0	0	0	278	0	185
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	0	861	184	201	812	0	0	0	0	316	0	210
RTOR Reduction (vph)	0	23	0	0	0	0	0	0	0	0	0	98
Lane Group Flow (vph)	0	1022	0	201	812	0	0	0	0	0	316	112
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type				Prot						Perm		Perm
Protected Phases		4		3	8						6	
Permitted Phases										6		6
Actuated Green, G (s)		22.8		7.8	35.1						16.2	16.2
Effective Green, g (s)		23.3		8.3	35.6						16.7	16.7
Actuated g/C Ratio		0.39		0.14	0.59						0.28	0.28
Clearance Time (s)		4.5		4.5	4.5						4.5	4.5
Vehicle Extension (s)		3.0		3.0	3.0						3.0	3.0
Lane Grp Cap (vph)		1324		244	2089						487	425
v/s Ratio Prot		c0.30		c0.11	0.23							
v/s Ratio Perm											0.18	0.07
v/c Ratio		0.77		0.82	0.39						0.65	0.26
Uniform Delay, d1		16.2		25.3	6.6						19.2	17.0
Progression Factor		1.00		1.00	1.00						1.00	1.00
Incremental Delay, d2		2.9		19.7	0.1						3.0	0.3
Delay (s)		19.0		45.0	6.7						22.2	17.3
Level of Service		B		D	A						C	B
Approach Delay (s)		19.0			14.3			0.0			20.3	
Approach LOS		B			B			A			C	

Intersection Summary			
HCM Average Control Delay	17.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	60.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.3%	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												
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			
Lane Util. Factor		0.95			0.95			1.00	1.00			
Frpb, ped/bikes		1.00			0.99			1.00	0.98			
Flpb, ped/bikes		1.00			1.00			0.99	1.00			
Frt		1.00			0.96			1.00	0.85			
Flt Protected		0.99			1.00			0.95	1.00			
Satd. Flow (prot)		3516			3350			1755	1552			
Flt Permitted		0.62			1.00			0.95	1.00			
Satd. Flow (perm)		2179			3350			1755	1552			
Volume (vph)	130	907	0	0	777	324	94	0	253	0	0	0
Peak-hour factor, PHF	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Adj. Flow (vph)	148	1031	0	0	883	368	107	0	288	0	0	0
RTOR Reduction (vph)	0	0	0	0	41	0	0	0	85	0	0	0
Lane Group Flow (vph)	0	1179	0	0	1210	0	0	107	203	0	0	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Perm						Perm		Perm			
Protected Phases		4			8			2				
Permitted Phases	4						2		2			
Actuated Green, G (s)		48.6			48.6			14.5	14.5			
Effective Green, g (s)		49.1			49.1			15.0	15.0			
Actuated g/C Ratio		0.68			0.68			0.21	0.21			
Clearance Time (s)		4.5			4.5			4.5	4.5			
Vehicle Extension (s)		3.0			3.0			3.0	3.0			
Lane Grp Cap (vph)		1484			2281			365	323			
v/s Ratio Prot					0.36							
v/s Ratio Perm		c0.54						0.06	c0.13			
v/c Ratio		0.79			0.53			0.29	0.63			
Uniform Delay, d1		8.0			5.7			24.1	26.0			
Progression Factor		1.00			1.00			1.00	1.00			
Incremental Delay, d2		3.0			0.2			0.4	3.8			
Delay (s)		11.0			6.0			24.5	29.8			
Level of Service		B			A			C	C			
Approach Delay (s)		11.0			6.0			28.4			0.0	
Approach LOS		B			A			C			A	

Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	72.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	85.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	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	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.98		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3359		1770	3460		1770	3465		1770	3533	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3359		1770	3460		1770	3465		1770	3533	
Volume (vph)	113	774	320	345	625	92	632	1289	177	129	1071	11
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	123	841	348	375	679	100	687	1401	192	140	1164	12
RTOR Reduction (vph)	0	37	0	0	10	0	0	9	0	0	1	0
Lane Group Flow (vph)	123	1152	0	375	769	0	687	1584	0	140	1175	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	10.6	31.5		15.0	35.9		24.0	48.5		8.0	32.5	
Effective Green, g (s)	10.6	32.0		15.0	36.4		24.0	49.0		8.0	33.0	
Actuated g/C Ratio	0.09	0.27		0.12	0.30		0.20	0.41		0.07	0.28	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	156	896		221	1050		354	1415		118	972	
v/s Ratio Prot	0.07	c0.34		c0.21	0.22		c0.39	0.46		0.08	c0.33	
v/s Ratio Perm												
v/c Ratio	0.79	1.29		1.70	0.73		1.94	1.12		1.19	1.21	
Uniform Delay, d1	53.6	44.0		52.5	37.4		48.0	35.5		56.0	43.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	22.7	136.9		332.3	2.7		433.5	63.8		141.5	103.8	
Delay (s)	76.3	180.9		384.8	40.1		481.5	99.3		197.5	147.3	
Level of Service	E	F		F	D		F	F		F	F	
Approach Delay (s)		171.1			152.1			214.5			152.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	179.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.47		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	129.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Volume (vph)	115	294	21	23	344	51	47	39	46	47	34	11
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
Hourly flow rate (vph)	131	334	24	26	391	58	53	44	52	53	39	12

Direction, Lane #	EB 1	WB 1	NB 1	SB 1
Volume Total (vph)	489	475	150	105
Volume Left (vph)	131	26	53	53
Volume Right (vph)	24	58	52	13
Hadj (s)	0.06	-0.03	-0.10	0.06
Departure Headway (s)	5.7	5.6	6.8	7.1
Degree Utilization, x	0.77	0.74	0.28	0.21
Capacity (veh/h)	617	617	467	439
Control Delay (s)	25.0	22.9	12.4	11.9
Approach Delay (s)	25.0	22.9	12.4	11.9
Approach LOS	D	C	B	B

Intersection Summary			
Delay	21.5		
HCM Level of Service	C		
Intersection Capacity Utilization	65.8%	ICU Level of Service	C
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3539	1583	1770	3539	1583	1770	3539	1583	1770	3539	1583
Volume (vph)	36	226	48	61	213	33	109	489	109	65	189	80
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	246	52	66	232	36	118	532	118	71	205	87
RTOR Reduction (vph)	0	0	42	0	0	28	0	0	73	0	0	55
Lane Group Flow (vph)	39	246	10	66	232	8	118	532	45	71	205	32
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	2.2	10.4	10.4	3.5	11.7	11.7	4.7	21.4	21.4	3.9	20.6	20.6
Effective Green, g (s)	2.7	10.9	10.9	4.0	12.2	12.2	5.2	21.9	21.9	4.4	21.1	21.1
Actuated g/C Ratio	0.05	0.19	0.19	0.07	0.21	0.21	0.09	0.38	0.38	0.08	0.37	0.37
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	84	674	302	124	755	338	161	1355	606	136	1305	584
v/s Ratio Prot	0.02	c0.07		c0.04	0.07		c0.07	c0.15		0.04	0.06	
v/s Ratio Perm			0.01			0.00			0.03			0.02
v/c Ratio	0.46	0.36	0.03	0.53	0.31	0.02	0.73	0.39	0.07	0.52	0.16	0.05
Uniform Delay, d1	26.5	20.1	18.9	25.7	18.9	17.8	25.3	12.8	11.2	25.4	12.1	11.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	4.0	0.3	0.0	4.3	0.2	0.0	15.8	0.2	0.1	3.6	0.1	0.0
Delay (s)	30.6	20.5	18.9	30.0	19.2	17.8	41.1	13.0	11.3	29.0	12.1	11.7
Level of Service	C	C	B	C	B	B	D	B	B	C	B	B
Approach Delay (s)		21.4			21.2			17.1			15.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	18.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	57.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	40.1%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Volume (vph)	85	321	63	164	549	124	31	804	113	170	966	117
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	349	68	178	597	135	34	874	123	185	1050	127
RTOR Reduction (vph)	0	0	51	0	0	100	0	0	78	0	0	77
Lane Group Flow (vph)	92	349	17	178	597	35	34	874	45	185	1050	50
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.2	17.6	17.6	5.6	18.0	18.0	3.3	25.3	25.3	5.6	27.6	27.6
Effective Green, g (s)	5.2	18.1	18.1	5.6	18.5	18.5	3.3	25.8	25.8	5.6	28.1	28.1
Actuated g/C Ratio	0.07	0.25	0.25	0.08	0.26	0.26	0.05	0.36	0.36	0.08	0.40	0.40
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	251	901	395	270	921	404	159	1284	563	270	1399	613
v/s Ratio Prot	0.03	0.10		c0.05	c0.17		0.01	0.25		c0.05	c0.30	
v/s Ratio Perm			0.01			0.02			0.03			0.03
v/c Ratio	0.37	0.39	0.04	0.66	0.65	0.09	0.21	0.68	0.08	0.69	0.75	0.08
Uniform Delay, d1	31.4	21.9	20.0	31.8	23.4	19.9	32.7	19.2	14.9	31.9	18.5	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.3	0.0	5.7	1.6	0.1	0.7	1.5	0.1	7.0	2.3	0.1
Delay (s)	32.3	22.2	20.0	37.5	25.0	20.0	33.3	20.7	14.9	38.9	20.8	13.5
Level of Service	C	C	C	D	C	C	C	C	B	D	C	B
Approach Delay (s)		23.7			26.7			20.4			22.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	71.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.0%	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												
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		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.99		1.00	0.98		1.00	0.94		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3495		1770	3443		1770	1736		1770	1786	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1770	3495		1770	3443		1770	1736		1770	1786	
Volume (vph)	63	529	39	135	821	144	41	57	39	139	120	39
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	68	575	42	147	892	157	45	62	42	151	130	42
RTOR Reduction (vph)	0	6	0	0	14	0	0	31	0	0	14	0
Lane Group Flow (vph)	68	611	0	147	1035	0	45	73	0	151	158	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot			Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases												
Actuated Green, G (s)	4.1	22.9		8.4	27.2		4.0	13.4		9.1	18.5	
Effective Green, g (s)	4.1	23.4		8.4	27.7		4.0	13.9		9.1	19.0	
Actuated g/C Ratio	0.06	0.33		0.12	0.39		0.06	0.20		0.13	0.27	
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5		4.0	4.5	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	103	1155		210	1347		100	341		228	479	
v/s Ratio Prot	0.04	0.17		c0.08	c0.30		0.03	0.04		c0.09	c0.09	
v/s Ratio Perm												
v/c Ratio	0.66	0.53		0.70	0.77		0.45	0.21		0.66	0.33	
Uniform Delay, d1	32.7	19.2		30.0	18.8		32.3	23.9		29.4	20.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	14.7	0.4		9.8	2.7		3.2	0.3		7.0	0.4	
Delay (s)	47.4	19.7		39.8	21.5		35.5	24.2		36.4	21.2	
Level of Service	D	B		D	C		D	C		D	C	
Approach Delay (s)		22.4			23.7			27.6			28.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	24.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.8	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.5%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1551	3433	3539	1551	3433	3539	1551	3433	3539	1551
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1551	3433	3539	1551	3433	3539	1551	3433	3539	1551
Volume (vph)	174	526	78	363	803	184	94	413	418	235	301	181
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	572	85	395	873	200	102	449	454	255	327	197
RTOR Reduction (vph)	0	0	61	0	0	129	0	0	194	0	0	141
Lane Group Flow (vph)	189	572	24	395	873	71	102	449	260	255	327	56
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.1	21.4	21.4	11.2	26.5	26.5	5.7	18.5	18.5	8.2	21.0	21.0
Effective Green, g (s)	6.1	21.9	21.9	11.2	27.0	27.0	5.7	19.0	19.0	8.2	21.5	21.5
Actuated g/C Ratio	0.08	0.29	0.29	0.15	0.35	0.35	0.07	0.25	0.25	0.11	0.28	0.28
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	274	1016	445	504	1252	549	256	881	386	369	997	437
v/s Ratio Prot	0.06	0.16		c0.12	c0.25		0.03	0.13		c0.07	0.09	
v/s Ratio Perm			0.02			0.05			c0.17			0.04
v/c Ratio	0.69	0.56	0.05	0.78	0.70	0.13	0.40	0.51	0.67	0.69	0.33	0.13
Uniform Delay, d1	34.2	23.1	19.7	31.4	21.1	16.7	33.7	24.6	25.9	32.8	21.7	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.1	0.7	0.1	7.8	1.7	0.1	1.0	0.5	4.6	5.5	0.2	0.1
Delay (s)	41.2	23.8	19.8	39.2	22.9	16.8	34.7	25.1	30.5	38.3	21.9	20.5
Level of Service	D	C	B	D	C	B	C	C	C	D	C	C
Approach Delay (s)		27.3			26.4			28.5			26.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	76.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.8%	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												
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
Lane Util. Factor		0.95	1.00	1.00	0.95					1.00		1.00
Frpb, ped/bikes		1.00	0.96	1.00	1.00					1.00		0.97
Flpb, ped/bikes		1.00	1.00	1.00	1.00					0.99		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1517	1770	3539					1746		1544
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1517	1770	3539					1746		1544
Volume (vph)	0	1814	450	269	1696	0	0	0	0	484	0	534
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1972	489	292	1843	0	0	0	0	526	0	580
RTOR Reduction (vph)	0	0	156	0	0	0	0	0	0	0	0	12
Lane Group Flow (vph)	0	1972	333	292	1843	0	0	0	0	526	0	568
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type			Perm	Prot						custom		custom
Protected Phases		4		3	8							
Permitted Phases			4							6		6
Actuated Green, G (s)		53.5	53.5	15.5	73.5					37.5		37.5
Effective Green, g (s)		54.0	54.0	16.0	74.0					38.0		38.0
Actuated g/C Ratio		0.45	0.45	0.13	0.62					0.32		0.32
Clearance Time (s)		4.5	4.5	4.5	4.5					4.5		4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1593	683	236	2182					553		489
v/s Ratio Prot		c0.56		c0.17	0.52							
v/s Ratio Perm			0.22							0.30		c0.37
v/c Ratio		1.24	0.49	1.24	0.84					0.95		1.16
Uniform Delay, d1		33.0	23.3	52.0	18.4					40.1		41.0
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		112.6	0.6	137.6	3.2					26.5		93.1
Delay (s)		145.6	23.8	189.6	21.6					66.6		134.1
Level of Service		F	C	F	C					E		F
Approach Delay (s)		121.4			44.6			0.0			102.0	
Approach LOS		F			D			A			F	

Intersection Summary			
HCM Average Control Delay	88.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.0%	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												
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			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frpb, ped/bikes	1.00	1.00			1.00	1.00	1.00		0.97			
Flpb, ped/bikes	1.00	1.00			1.00	1.00	0.99		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1746		1544			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1746		1544			
Volume (vph)	471	1816	0	0	1531	766	459	0	336	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	512	1974	0	0	1664	833	499	0	365	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	314	0	0	14	0	0	0
Lane Group Flow (vph)	512	1974	0	0	1664	519	499	0	351	0	0	0
Confl. Peds. (#/hr)			10	10			10		10			
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	27.5	79.5			47.5	47.5	31.5		31.5			
Effective Green, g (s)	28.0	80.0			48.0	48.0	32.0		32.0			
Actuated g/C Ratio	0.23	0.67			0.40	0.40	0.27		0.27			
Clearance Time (s)	4.5	4.5			4.5	4.5	4.5		4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	413	2359			1416	633	466		412			
v/s Ratio Prot	c0.29	0.56			c0.47							
v/s Ratio Perm						0.33	c0.29		0.23			
v/c Ratio	1.24	0.84			1.18	0.82	1.07		0.85			
Uniform Delay, d1	46.0	15.1			36.0	32.1	44.0		41.8			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	127.0	2.7			86.6	8.4	61.9		15.5			
Delay (s)	173.0	17.8			122.6	40.5	105.9		57.3			
Level of Service	F	B			F	D	F		E			
Approach Delay (s)		49.8			95.2			85.4			0.0	
Approach LOS		D			F			F			A	

Intersection Summary			
HCM Average Control Delay	74.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	109.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1544	3433	3539	1544	3433	5085	1544	3433	5085	1544
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1544	3433	3539	1544	3433	5085	1544	3433	5085	1544
Volume (vph)	643	1200	301	131	1093	342	380	754	167	313	904	814
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	699	1304	327	142	1188	372	413	820	182	340	983	885
RTOR Reduction (vph)	0	0	157	0	0	186	0	0	110	0	0	173
Lane Group Flow (vph)	699	1304	170	142	1188	186	413	820	72	340	983	712
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	18.0	43.6	43.6	7.9	33.5	33.5	12.0	35.5	35.5	16.0	39.5	39.5
Effective Green, g (s)	18.0	44.1	44.1	7.9	34.0	34.0	12.0	36.0	36.0	16.0	40.0	40.0
Actuated g/C Ratio	0.15	0.37	0.37	0.07	0.28	0.28	0.10	0.30	0.30	0.13	0.33	0.33
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	515	1301	567	226	1003	437	343	1526	463	458	1695	515
v/s Ratio Prot	c0.20	0.37		0.04	c0.34		c0.12	0.16		0.10	0.19	
v/s Ratio Perm			0.11			0.12			0.05			c0.46
v/c Ratio	1.36	1.00	0.30	0.63	1.18	0.43	1.20	0.54	0.16	0.74	0.58	1.38
Uniform Delay, d1	51.0	37.9	27.0	54.6	43.0	35.1	54.0	35.1	30.8	50.0	33.1	40.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	173.1	25.5	0.3	5.4	93.3	0.7	116.3	0.4	0.2	6.4	0.5	184.2
Delay (s)	224.1	63.5	27.3	60.0	136.3	35.7	170.3	35.4	31.0	56.4	33.5	224.2
Level of Service	F	E	C	E	F	D	F	D	C	E	C	F
Approach Delay (s)		106.6			107.9			74.2			113.5	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	102.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.5%	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												
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
Lane Util. Factor		0.95	1.00	1.00	0.95					1.00		1.00
Frt		1.00	0.85	1.00	1.00					1.00		0.85
Flt Protected		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (prot)		3539	1583	1770	3539					1770		1583
Flt Permitted		1.00	1.00	0.95	1.00					0.95		1.00
Satd. Flow (perm)		3539	1583	1770	3539					1770		1583
Volume (vph)	0	1134	332	41	802	0	0	0	0	102	0	269
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1233	361	45	872	0	0	0	0	111	0	292
RTOR Reduction (vph)	0	0	189	0	0	0	0	0	0	0	0	92
Lane Group Flow (vph)	0	1233	172	45	872	0	0	0	0	111	0	200
Turn Type			Perm	Prot						custom		custom
Protected Phases		4		3	8							
Permitted Phases			4							6		6
Actuated Green, G (s)		24.1	24.1	2.3	30.4					12.2		12.2
Effective Green, g (s)		24.6	24.6	2.3	30.9					12.7		12.7
Actuated g/C Ratio		0.48	0.48	0.04	0.60					0.25		0.25
Clearance Time (s)		4.5	4.5	4.0	4.5					4.5		4.5
Vehicle Extension (s)		3.0	3.0	3.0	3.0					3.0		3.0
Lane Grp Cap (vph)		1687	755	79	2119					436		390
v/s Ratio Prot		c0.35		0.03	c0.25							
v/s Ratio Perm			0.11							0.06		c0.13
v/c Ratio		0.73	0.23	0.57	0.41					0.25		0.51
Uniform Delay, d1		10.8	7.9	24.2	5.5					15.6		16.8
Progression Factor		1.00	1.00	1.00	1.00					1.00		1.00
Incremental Delay, d2		1.7	0.2	9.1	0.1					0.3		1.1
Delay (s)		12.5	8.1	33.3	5.6					16.0		17.9
Level of Service		B	A	C	A					B		B
Approach Delay (s)		11.5			7.0			0.0			17.4	
Approach LOS		B			A			A			B	

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	51.6	Sum of lost time (s)	12.0
Intersection Capacity Utilization	52.8%	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												
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			
Lane Util. Factor	1.00	0.95			0.95	1.00	1.00		1.00			
Frt	1.00	1.00			1.00	0.85	1.00		0.85			
Flt Protected	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (prot)	1770	3539			3539	1583	1770		1583			
Flt Permitted	0.95	1.00			1.00	1.00	0.95		1.00			
Satd. Flow (perm)	1770	3539			3539	1583	1770		1583			
Volume (vph)	74	1162	0	0	664	91	173	0	227	0	0	0
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	80	1263	0	0	722	99	188	0	247	0	0	0
RTOR Reduction (vph)	0	0	0	0	0	59	0	0	31	0	0	0
Lane Group Flow (vph)	80	1263	0	0	722	40	188	0	216	0	0	0
Turn Type	Prot					Perm	custom		custom			
Protected Phases	7	4			8							
Permitted Phases						8	2		2			
Actuated Green, G (s)	3.9	26.8			18.9	18.9	12.5		12.5			
Effective Green, g (s)	3.9	27.3			19.4	19.4	13.0		13.0			
Actuated g/C Ratio	0.08	0.57			0.40	0.40	0.27		0.27			
Clearance Time (s)	4.0	4.5			4.5	4.5	4.5		4.5			
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0		3.0			
Lane Grp Cap (vph)	143	2000			1421	636	476		426			
v/s Ratio Prot	0.05	c0.36			0.20							
v/s Ratio Perm						0.03	0.11		c0.14			
v/c Ratio	0.56	0.63			0.51	0.06	0.39		0.51			
Uniform Delay, d1	21.4	7.1			10.9	8.9	14.4		14.9			
Progression Factor	1.00	1.00			1.00	1.00	1.00		1.00			
Incremental Delay, d2	4.7	0.7			0.3	0.0	0.5		0.9			
Delay (s)	26.1	7.8			11.2	8.9	15.0		15.9			
Level of Service	C	A			B	A	B		B			
Approach Delay (s)		8.8			10.9			15.5			0.0	
Approach LOS		A			B			B			A	

Intersection Summary			
HCM Average Control Delay	10.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	48.3	Sum of lost time (s)	8.0
Intersection Capacity Utilization	52.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

APPENDIX D

ROAD SEGMENT ANALYSIS TABLE

ROAD SEGMENT ANALYSIS TABLE
East-West Streets

Road	Segment	2035 General Plan Designations	Existing							2035						
			No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM		No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM	
						PHV	LOS	PHV	LOS				PHV	LOS	PHV	LOS
Manning Avenue	Armstrong to Temperance	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	*2,014*	C	*2,459*	D
	Temperance to SR 99	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	*2,014*	C	*2,459*	D
	SR 99 to Golden State	Expressway	4	Y	Y	*1,065*	D	*1,340*	C	4	Y	Y	*2,014*	C	*2,459*	D
	Golden State to DeWolf	Expressway	4	Y	Y	1,065	C	1,340	C	4	Y	Y	2,014	C	2,459	D
	DeWolf to Leonard	Expressway	4	Y	Y	1,056	C	1,364	C	4	Y	Y	2,286	D	2,920	D
	Leonard to Highland	Expressway	4	Y	Y	*1,062*	C	*1,382*	C	4	Y	Y	*2,150*	D	*2,789*	D
	Highland to Thompson	Expressway	4	Y	Y	*1,062*	C	*1,382*	C	4	Y	Y	*2,150*	D	*2,789*	D
	Thompson to McCall	Expressway	4	Y	Y	1,068	C	1,399	C	4	Y	Y	2,013	C	2,659	D
	McCall to Dockery	Expressway	4	Y	Y	1,054	C	1,432	C	4	Y	Y	2,125	D	2,906	D
	Dockery to Del Rey	Expressway	4	Y	Y	1,079	C	1,432	C	4	Y	Y	1,997	C	2,628	D
	Del Rey to Bethel	Expressway	4	Y	Y	1,093	C	1,451	C	4	Y	Y	1,915	C	2,528	D
Springfield Avenue	Armstrong to Temperance	Collector	2	N	N	NA	-	NA	-	2	Y	Y	<100	C	<100	C
	Temperance to Locan	Collector	2	N	N	NA	-	NA	-	2	Y	Y	<100	C	119	C
	Leonard to Highland	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	142	C
	Thompson to McCall	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	151	C
	McCall to Dockery	Collector	-	-	-	-	-	-	-	2	Y	Y	450	C	625	C
	Dockery to Del Rey	Collector	-	-	-	-	-	-	-	2	Y	Y	225	C	309	C
	Del Rey to Bethel	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
Dinuba Avenue	Armstrong to Temperance	Arterial	2	N	N	51	C	22	C	4	Y	Y	436	C	413	C
	Temperance to Locan	Arterial	2	N	N	44	C	27	C	4	Y	Y	613	C	617	C
	Locan to DeWolf	Arterial	2	N	N	45	C	25	C	4	Y	Y	1,046	C	1,678	C
	DeWolf to Golden State	Arterial	2	N	N	14	C	28	C	4	Y	Y	1,035	C	1,425	C
	Golden State to Leonard	Arterial	2	N	N	426	C	525	C	4	Y	Y	1,220	C	1,530	C
	Leonard to Highland	Arterial	2	N	N	412	C	513	C	4	Y	Y	1,200	C	1,499	C
	Highland to Thompson	Arterial	2	N	N	535	C	646	C	4	Y	Y	1,475	C	1,734	C
	Thompson to Wright	Arterial	2	N	N	*546*	C	*630*	C	4	Y	Y	*1,423*	C	*1,747*	C
	Wright to McCall	Arterial	2	N	N	557	C	614	C	4	Y	Y	1,372	C	1,760	C
	McCall to Dockery	Arterial	2	N	N	478	C	501	C	4	Y	Y	1,295	C	1,524	C
	Dockery to Amber	Arterial	2	N	N	458	C	494	C	4	Y	Y	1,019	C	1,166	C
	Amber to Bethel	Arterial	2	N	N	443	C	437	C	4	Y	Y	973	C	1,003	C
Huntsman Avenue	Armstrong to Temperance	Collector	2	N	N	NA	-	NA	-	2	Y	Y	141	C	432	C
	Temperance to Locan	Collector	2	N	N	NA	-	NA	-	2	Y	Y	422	C	672	C
	Locan to DeWolf	Collector	2	N	N	NA	-	NA	-	2	Y	Y	339	C	593	C
Nelson Avenue	Highland to Thompson	Collector	2	N	Y	NA	-	NA	-	2	N	N	<100	C	<100	C
	McCall to Dockery	Collector	2	N	Y	NA	-	NA	-	2	N	N	<100	C	<100	C
	Dockery to Orange	Collector	2	N	Y	NA	-	NA	-	2	N	N	<100	C	<100	C
Floral Avenue	Armstrong to Temperance	Arterial	2	N	N	*135*	C	*232*	C	4	Y	Y	*778*	C	*1,150*	C
	Temperance to Locan	Arterial	2	N	N	*135*	C	*232*	C	4	Y	Y	*778*	C	*1,150*	C
	Locan to DeWolf	Arterial	2	N	N	135	C	232	C	4	Y	Y	778	C	1,150	C
	DeWolf to Leonard	Arterial	2	N	N	174	C	260	C	4	Y	Y	768	C	1,315	C
	Leonard to SR 99	Arterial	4	N	N	434	C	1,079	C	4	Y	Y	2,806	D	5,289	**F**
	SR 99 to Highland	Arterial	4	Y	Y	1,060	C	1,862	C	4	Y	Y	3,029	**E**	5,676	**F**
	Highland to Whitson	Arterial	4	Y	Y	1,077	C	1,663	C	4	Y	Y	2,611	D	4,752	**F**
	Whitson to Thompson	Arterial	4	Y	N	583	C	856	C	4	Y	N	1,684	C	3,058	**F**
	Thompson to Wright	Arterial	4	N	N	539	C	940	C	4	N	N	1,615	D	2,704	**F**
	Wright to McCall	Arterial	2	N	N	539	C	940	D	2*	N	N	1,615	**F**	2,704	**F**
	McCall to Dockery	Arterial	2	N	N	391	C	697	D	2*	N	N	1,317	**F**	2,195	**F**
	Dockery to Amber	Arterial	2	N	N	371	C	683	C	4	Y	Y	976	C	1,646	C

ROAD SEGMENT ANALYSIS TABLE
East-West Streets

Road	Segment	2035 General Plan Designations	Existing							2035						
			No. of Lanes	Lft-turn Pockets	Divided Y/N	AM PHV	AM LOS	PM PHV	PM LOS	No. of Lanes	Lft-turn Pockets	Divided Y/N	AM PHV	AM LOS	PM PHV	PM LOS
Floral Avenue	Amber to Bethel	Arterial	2	N	N	389	C	663	C	4	Y	Y	846	C	1,497	C
Rose Avenue	Armstrong to Temperance	Collector	2	N	N	*38*	C	*62*	C	2	Y	Y	*508*	C	*1,044*	D
	Temperance to Locan	Collector	2	N	N	*38*	C	*62*	C	2	Y	Y	*508*	C	*1,044*	D
	Locan to DeWolf	Collector	2	N	N	*38*	C	*62*	C	2	Y	Y	*508*	C	*1,044*	D
	DeWolf to SR 43	Collector	2	N	N	*38*	C	*62*	C	2	Y	Y	*508*	C	*1,044*	D
	SR 43 to Leonard	Collector	2	N	N	*38*	C	*62*	C	2	Y	Y	*508*	C	*1,044*	D
	Leonard to Highland	Collector	2	N	N	38	C	62	C	2	Y	Y	508	C	1,044	D
	Highland to Thompson	Collector	2	N	N	232	C	306	C	2	N	N	468	C	880	D
	McCall to Dockery	Collector	4	N	N	286	C	170	C	4	N	N	646	C	585	C
	Dockery to Amber	Collector	4	N	N	280	C	203	C	4	N	N	634	C	650	C
	Amber to Bethel	Collector	2	N	N	*204*	C	*269*	C	2	Y	Y	*801*	C	*1,289*	D
Nebraska Avenue	Armstrong to Temperance	Arterial	2	N	N	*204*	C	*269*	C	4	Y	Y	*801*	C	*1,289*	C
	Temperance to Locan	Arterial	2	N	N	*204*	C	*269*	C	4	Y	Y	*801*	C	*1,289*	C
	Locan to DeWolf	Arterial	2	N	N	*204*	C	*269*	C	4	Y	Y	*801*	C	*1,289*	C
	DeWolf to Leonard	Arterial	2	N	N	*204*	C	*269*	C	4	Y	Y	*801*	C	*1,289*	C
	Leonard to SR 43	Arterial	2	N	N	*204*	C	*269*	C	4	Y	Y	*801*	C	*1,289*	C
	SR 43 to Highland	Arterial	2	N	N	204	C	269	C	4	Y	Y	801	C	1,289	C
	Highland to Thompson	Arterial	2	N	N	215	C	385	C	2*	N	N	761	D	1,350	**F**
	Thompson to 2nd	Arterial	2	N	N	378	C	459	C	2*	N	N	1,062	D	1,622	**F**
	Golden State to Dockery	Arterial	2	N	N	93	C	170	C	2*	N	N	687	C	832	D
	Dockery to Amber	Arterial	2	N	N	39	C	82	C	4	Y	Y	514	C	712	C
	Amber to Bethel	Arterial	2	N	N	39	C	82	C	4	Y	Y	475	C	708	C
Saginaw Avenue	DeWolf to Highland	Collector	2	N	N	NA	-	NA	-	2	Y	Y	357	C	476	C
	Highland to Thompson	Collector	-	-	-	-	-	-	-	2	Y	Y	313	C	514	C
	Thompson to McCall	Collector	-	-	-	-	-	-	-	2	Y	Y	317	C	662	C
	McCall to SR 99	Collector	-	-	-	-	-	-	-	2	Y	Y	542	C	990	D
	Golden State to Amber	Collector	2	N	N	NA	-	NA	-	2	Y	Y	259	C	411	C
	Amber to Bethel	Collector	2	N	N	NA	-	NA	-	2	Y	Y	270	C	415	C
Mountain View Avenue	DeWolf to Highland	Arterial	2	N	N	145	C	183	C	4	Y	Y	935	C	1,166	C
	Highland to Thompson	Arterial	2	N	N	201	C	291	C	4	Y	Y	1,042	C	1,532	C
	Thompson to McCall	Arterial	2	N	N	208	C	280	C	4	Y	Y	1,310	C	1,855	C
	McCall to Dockery	Arterial	2	N	N	241	C	367	C	4	Y	Y	1,636	C	2,529	D
	Dockery to SR 99	Arterial	2	N	N	402	C	565	C	4	Y	Y	2,907	D	4,494	**F**
	SR 99 to Golden State	Arterial	2	Y	Y	772	C	1,032	D	4	Y	Y	2,876	D	4,431	**F**
	Golden State to Amber	Arterial	4	Y	Y	760	C	1,055	D	4	Y	Y	2,237	D	3,246	**F**
	Amber to Bethel	Arterial	4	Y	Y	*760*	C	*1,055*	D	4	Y	Y	*2,237*	D	*3,246*	**F**
Caruthers Avenue	DeWolf to Highland	Collector	2	N	N	NA	-	NA	-	2	Y	Y	<100	C	<100	C
	Highland to Thompson	Collector	-	-	-	-	-	-	-	2	Y	Y	103	C	214	C
	Thompson to McCall	Collector	-	-	-	-	-	-	-	2	Y	Y	118	C	221	C
	McCall to Dockery	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C

Values in italics are interpolated or extrapolated from adjacent segments.
NA - Not Available
* Physical constraints

ROAD SEGMENT ANALYSIS TABLE
North-South Streets

Road	Segment	2035 General Plan Designations	Existing							2035						
			No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM		No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM	
						PHV	LOS	PHV	LOS				PHV	LOS	PHV	LOS
Armstrong Avenue	Manning to Springfield	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
	Springfield to Dinuba	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
	Dinuba to Huntsman	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
	Huntsman to Floral	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
	Floral to Rose	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
Temperance Avenue	Manning to Springfield	Arterial	2	N	N	*30*	C	*17*	C	4	Y	Y	429	C	601	C
	Springfield to Dinuba	Arterial	2	N	N	30	C	17	C	4	Y	Y	492	C	390	C
	Dinuba to Huntsman	Arterial	2	N	N	23	C	12	C	4	Y	Y	432	C	450	C
	Floral to Rose	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	<100	C	<100	C
	Rose to Nebraska	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	<100	C	160	C
Locan Avenue	Springfield to Dinuba	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	119	C
	Dinuba to Huntsman	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
	Floral to Rose	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
	Rose to Nebraska	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	<100	C
DeWolf Avenue	Manning to Golden State	Arterial	2	N	N	30	C	111	C	4	Y	Y	680	C	1,153	C
	Golden State to SR 99	Arterial	2	N	N	*30*	C	*111*	C	4	Y	Y	1,025	C	1,282	C
	Dinuba to Huntsman	Arterial	2	N	N	45	C	25	C	4	Y	Y	778	C	1,234	C
	Huntsman to Floral	Arterial	2	N	N	36	C	22	C	4	Y	Y	572	C	1,046	C
	Floral to SR 43	Arterial	2	N	N	19	C	36	C	4	Y	Y	398	C	590	C
	SR 43 to Rose	Arterial	2	N	N	*19*	C	*36*	C	4	Y	Y	234	C	395	C
	Rose to Nebraska	Arterial	2	N	N	*19*	C	*36*	C	4	Y	Y	279	C	495	C
	Nebraska to Saginaw	Arterial	2	N	N	*19*	C	*36*	C	4	Y	Y	347	C	717	C
	Saginaw to Mountain View	Arterial	2	N	N	*19*	C	*36*	C	4	Y	Y	125	C	188	C
	Mountain View to Caruthers	Arterial	2	N	N	*19*	C	*36*	C	4	Y	Y	<100	C	107	C
Leonard Avenue	Manning to Springfield	Collector	2	N	N	*19*	C	*36*	C	2	Y	Y	<100	C	<100	C
	Springfield to Dinuba	Collector	2	N	N	*19*	C	*36*	C	2	Y	Y	<100	C	<100	C
	Floral to Rose	Collector	-	-	-	-	-	-	-	2	Y	Y	124	C	351	C
	Rose to SR 43	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	128	C
	SR 43 to Nebraska	Collector	-	-	-	-	-	-	-	2	Y	Y	121	C	175	C
Highland Avenue	Golden State to Floral	Major Arterial	2	Y	Y	632	C	974	D	4*	Y	Y	1,661	C	2,422	D
	Floral to Rose	Major Arterial	4	Y	Y	939	C	1,276	C	4*	Y	Y	1,826	C	2,644	D
	Rose to Nebraska	Major Arterial	4	Y	Y	786	C	1,144	C	4*	Y	Y	1,452	C	2,111	D
	Nebraska to SR 43	Major Arterial	4	Y	Y	711	C	1,080	C	4*	Y	Y	1,438	C	2,068	D
Highland Avenue (SR 43)	SR 43 to Saginaw	State Highway	2	N	N	*714*	D	*1,048*	D	4	Y	Y	*1,470*	C	*2,167*	D
	Saginaw to Mountain View	State Highway	2	N	N	717	D	1,015	D	4	Y	Y	1,502	C	2,266	D
	Mountain View to Caruthers	State Highway	2	N	N	719	D	1,007	D	4	Y	Y	1,414	C	2,141	D
Thompson Avenue	Manning to Springfield	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	112	C
Thompson/Wright	Springfield to Dinuba	Collector	-	-	-	-	-	-	-	2	Y	Y	146	C	222	C
Thompson Avenue	Dinuba to Nelson	Collector	4	N	N	NA	-	NA	-	4	N	N	296	C	587	C
	Nelson to Floral	Collector	4	N	N	NA	-	NA	-	4	N	N	264	C	542	C
	Floral to Whitson	Collector	2	N	N	NA	-	NA	-	2	N	N	235	C	442	C
	Whitson to Rose	Collector	2	N	N	NA	-	NA	-	2	N	N	211	C	524	C
	Nebraska to Saginaw	Collector	2	N	N	158	C	237	C	2	N	N	417	C	746	D
	Saginaw to Mountain View	Collector	2	N	N	26	C	63	C	2	N	N	344	C	562	C
	Mountain View to Caruthers	Collector	2	N	N	20	C	41	C	2	N	N	393	C	431	C
McCall Avenue	Parlier to Manning	Arterial	2	N	N	307	C	460	C	4	Y	Y	623	C	1,049	C
	Manning to Springfield	Arterial	2	N	N	441	C	651	C	4	Y	Y	1,010	C	1,518	C
	Springfield to Dinuba	Arterial	2	N	N	548	C	582	C	4	Y	Y	1,116	C	1,526	C

ROAD SEGMENT ANALYSIS TABLE
North-South Streets

Road	Segment	2035 General Plan Designations	Existing							2035						
			No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM		No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM	
						PHV	LOS	PHV	LOS				PHV	LOS	PHV	LOS
McCall Avenue	Dinuba to Nelson	Arterial	4	N	N	479	C	497	C	4	N	N	1,088	C	1,406	C
	Nelson to Floral	Arterial	4	N	N	477	C	702	C	4	N	N	1,374	C	1,832	D
	Floral to Arrants	Arterial	2	Y	N	363	C	481	C	2*	N	N	1,101	D	1,265	**F**
	Arrants to 2nd	Arterial	4	Y	Y	*363*	C	*481*	C	4	Y	Y	*1,101*	C	*1,265*	C
	Whitson to Saginaw	Arterial	2	N	N	*108*	C	*208*	C	2*	N	N	*832*	D	*1,487*	**F**
	Saginaw to Mountain View	Arterial	2	N	N	108	C	208	C	4	Y	Y	832	C	1,487	C
	Mountain View to Caruthers	Arterial	2	N	N	113	C	295	C	4	Y	Y	900	C	1,666	C
Dockery Avenue	Manning to Springfield	Collector	-	-	-	-	-	-	-	2	Y	Y	*328*	C	*429*	C
	Springfield to Dinuba	Collector	-	-	-	-	-	-	-	2	Y	Y	328	C	429	C
	Dinuba to Nelson	Collector	2	N	Y	67	C	92	C	2	N	Y	286	C	420	C
	SR 99 to Mountain View	Collector	2	N	N	24	C	30	C	2	Y	Y	173	C	209	C
	Mountain View to Caruthers	Collector	2	N	N	*24*	C	*30*	C	2	Y	Y	*173*	C	*209*	C
Del Rey Avenue	Manning to Springfield	Arterial	2	N	N	13	C	10	C	4	Y	Y	74	C	73	C
	Springfield to Mill Ditch	Arterial	2	N	N	71	C	41	C	4	Y	Y	290	C	424	C
Amber Avenue	Dinuba to Floral	Arterial	-	-	-	-	-	-	-	4	Y	Y	584	C	722	C
	Floral to Rose	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	665	C	961	C
	Rose to Nebraska	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	755	C	892	C
	Nebraska to Saginaw	Arterial	-	-	-	-	-	-	-	4	Y	Y	802	C	1,005	C
	Saginaw to Mountain View	Arterial	-	-	-	-	-	-	-	4	Y	Y	486	C	829	C
Bethel Avenue	South to Manning	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	341	C	420	C
	Manning to Springfield	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	322	C	501	C
	Springfield to Dinuba	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	296	C	472	C
	Dinuba to Floral	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	258	C	444	C
	Floral to Rose	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	236	C	373	C
	Rose to Nebraska	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	446	C	739	C
	Nebraska to Saginaw	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	236	C	365	C
	Saginaw to Mountain View	Arterial	2	N	N	NA	-	NA	-	4	Y	Y	164	C	264	C

Values in italics are interpolated or extrapolated from adjacent segments.
NA - Not Available
* Physical constraints

ROAD SEGMENT ANALYSIS TABLE
Diagonal Streets

Road	Segment	2035 General Plan Designations	Existing							2035						
			No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM		No. of Lanes	Lft-turn Pockets	Divided Y/N	AM		PM	
						PHV	LOS	PHV	LOS				PHV	LOS	PHV	LOS
Golden State Blvd.	Manning to Springfield	Major Arterial	4	Y	Y	*770*	C	*1,043*	C	6	Y	Y	*1,520*	C	*3,100*	C
	Springfield to Dinuba	Major Arterial	4	Y	Y	770	C	1,043	C	6	Y	Y	1,520	C	3,100	C
	Dinuba to Highland	Major Arterial	4	Y	Y	452	C	678	C	6	Y	Y	1,248	C	2,764	C
Whitson Street	Highland to Floral	Major Arterial	4	Y	Y	402	C	641	C	4*	Y	Y	872	C	1,531	C
	Floral to Thompson	Major Arterial	4	Y	Y	656	C	973	C	4*	Y	Y	1,276	C	2,067	D
	Thompson to 2nd	Major Arterial	4	N	Y	408	C	643	C	4*	N	Y	1,390	C	2,705	**F**
	2nd to McCall	Major Arterial	4	N	Y	438	C	684	C	4*	N	Y	2,030	D	3,832	**F**
	McCall to Nebraska	Major Arterial	4	N	Y	*438*	C	*684*	C	4*	N	Y	*2,030*	D	*3,832*	**F**
Golden State Blvd.	Nebraska to Dockery	Major Arterial	4	N	Y	*409*	C	*644*	C	6	Y	Y	*1,838*	C	*3,801*	D
	Dockery to Saginaw	Major Arterial	4	N	Y	*380*	C	*603*	C	6	Y	Y	*1,645*	C	*3,770*	D
	Saginaw to Mountain View	Major Arterial	4	N	Y	380	C	603	C	6	Y	Y	1,645	C	3,770	D
SR 43	DeWolf to Rose	State Highway	-	-	-	-	-	-	-	4	Y	Y	262	C	430	C
	Rose to Leonard	State Highway	-	-	-	-	-	-	-	4	Y	Y	407	C	781	C
	Leonard to Nebraska	State Highway	-	-	-	-	-	-	-	4	Y	Y	297	C	641	C
	Nebraska to Highland	State Highway	-	-	-	-	-	-	-	4	Y	Y	299	C	471	C
2nd Street	Nebraska to SR 99	Arterial	2	N	N	683	C	757	D	2*	N	N	1,279	**F**	1,821	**F**
	SR 99 to Whitson	Arterial	2	Y	N	969	D	1,116	D	2*	Y	N	1,846	**F**	2,262	**F**
	Whitson to McCall	Arterial	2	N	N	908	D	1,016	**E**	2*	N	N	1,771	**F**	2,142	**F**
Saginaw-Dockery Diagonal	Saginaw to Dockery	Collector	-	-	-	-	-	-	-	2	Y	Y	<100	C	274	C
Del Rey-Amber Diagonal	Del Rey to Amber	Arterial	-	-	-	-	-	-	-	4	Y	Y	284	C	418	C

Values in italics are interpolated or extrapolated from adjacent segments.
NA - Not Available
* Physical constraints

APPENDIX E

MITIGATED INTERSECTION ANALYSIS SHEETS

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.98	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	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1553	3433	3539	1532	3433	1863	1553	1770	1797	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1553	3433	3539	1532	3433	1863	1553	1770	1797	
Volume (vph)	34	592	110	283	1217	39	26	45	83	73	133	35
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	643	120	308	1323	42	28	49	90	79	145	38
RTOR Reduction (vph)	0	0	75	0	0	21	0	0	73	0	12	0
Lane Group Flow (vph)	37	643	45	308	1323	21	28	49	17	79	171	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	2.4	24.7	24.7	9.6	31.9	31.9	2.1	12.0	12.0	4.2	14.1	
Effective Green, g (s)	2.4	25.2	25.2	9.6	32.4	32.4	2.1	12.5	12.5	4.2	14.6	
Actuated g/C Ratio	0.04	0.37	0.37	0.14	0.48	0.48	0.03	0.19	0.19	0.06	0.22	
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	63	1321	580	488	1699	735	107	345	288	110	389	
v/s Ratio Prot	0.02	0.18		c0.09	c0.37		0.01	0.03		c0.04	c0.10	
v/s Ratio Perm			0.03			0.01			0.01			
v/c Ratio	0.59	0.49	0.08	0.63	0.78	0.03	0.26	0.14	0.06	0.72	0.44	
Uniform Delay, d1	32.1	16.2	13.6	27.3	14.6	9.3	31.9	23.0	22.7	31.1	22.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	13.2	0.3	0.1	2.7	2.3	0.0	1.3	0.2	0.1	20.0	0.8	
Delay (s)	45.3	16.5	13.7	29.9	16.9	9.3	33.2	23.2	22.7	51.0	23.7	
Level of Service	D	B	B	C	B	A	C	C	C	D	C	
Approach Delay (s)		17.4			19.1			24.6			31.9	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	67.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.3%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Volume (vph)	28	521	80	151	1155	36	160	131	195	66	293	69
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	30	566	87	164	1255	39	174	142	212	72	318	75
RTOR Reduction (vph)	0	0	52	0	0	21	0	0	163	0	0	60
Lane Group Flow (vph)	30	566	35	164	1255	18	174	142	49	72	318	15
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	2.2	27.3	27.3	5.9	31.0	31.0	6.0	15.6	15.6	4.0	13.6	13.6
Effective Green, g (s)	2.2	27.8	27.8	5.9	31.5	31.5	6.0	16.1	16.1	4.0	14.1	14.1
Actuated g/C Ratio	0.03	0.40	0.40	0.08	0.45	0.45	0.09	0.23	0.23	0.06	0.20	0.20
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	108	1410	618	290	1597	700	295	816	358	197	715	314
v/s Ratio Prot	0.01	0.16		c0.05	c0.35		c0.05	0.04		0.02	c0.09	
v/s Ratio Perm			0.02			0.01			0.03			0.01
v/c Ratio	0.28	0.40	0.06	0.57	0.79	0.03	0.59	0.17	0.14	0.37	0.44	0.05
Uniform Delay, d1	33.0	15.0	12.9	30.7	16.3	10.6	30.7	21.5	21.3	31.7	24.4	22.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.4	0.2	0.0	2.5	2.6	0.0	3.0	0.1	0.2	1.2	0.4	0.1
Delay (s)	34.4	15.2	13.0	33.2	18.9	10.6	33.7	21.6	21.5	32.8	24.9	22.5
Level of Service	C	B	B	C	B	B	C	C	C	C	C	C
Approach Delay (s)		15.8			20.3			25.6			25.7	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	21.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	69.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	65.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	0.88
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583	3433	3539	3539	2787
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583	3433	3539	3539	2787
Volume (vph)	252	51	59	169	499	684
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	274	55	64	184	542	743
RTOR Reduction (vph)	0	44	0	0	0	307
Lane Group Flow (vph)	274	11	64	184	542	436
Turn Type		Perm	Prot			custom
Protected Phases	4		2		3	8
Permitted Phases		4		2		
Actuated Green, G (s)	8.7	8.7	10.2	10.2	13.3	26.0
Effective Green, g (s)	9.2	9.2	10.7	10.7	13.3	26.5
Actuated g/C Ratio	0.20	0.20	0.24	0.24	0.29	0.59
Clearance Time (s)	4.5	4.5	4.5	4.5	4.0	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	699	322	813	838	1041	1634
v/s Ratio Prot	c0.08		0.02		c0.15	0.16
v/s Ratio Perm		0.01		c0.05		
v/c Ratio	0.39	0.03	0.08	0.22	0.52	0.27
Uniform Delay, d1	15.6	14.4	13.4	13.9	13.3	4.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.0	0.0	0.1	0.5	0.1
Delay (s)	15.9	14.5	13.5	14.0	13.8	4.7
Level of Service	B	B	B	B	B	A
Approach Delay (s)	15.7			13.9	8.5	
Approach LOS	B			B	A	

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	45.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	34.3%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1555	3433	3539	1555	3433	5085	1555	3433	5085	1555
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1555	3433	3539	1555	3433	5085	1555	3433	5085	1555
Volume (vph)	48	176	55	51	423	391	243	294	44	135	561	90
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	191	60	55	460	425	264	320	48	147	610	98
RTOR Reduction (vph)	0	0	44	0	0	308	0	0	34	0	0	72
Lane Group Flow (vph)	52	191	16	55	460	117	264	320	14	147	610	26
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	3.3	15.1	15.1	3.3	15.1	15.1	7.1	15.8	15.8	5.6	14.3	14.3
Effective Green, g (s)	3.3	15.6	15.6	3.3	15.6	15.6	7.1	16.3	16.3	5.6	14.8	14.8
Actuated g/C Ratio	0.06	0.27	0.27	0.06	0.27	0.27	0.12	0.29	0.29	0.10	0.26	0.26
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	199	972	427	199	972	427	429	1459	446	338	1325	405
v/s Ratio Prot	0.02	0.05		c0.02	c0.13		c0.08	0.06		0.04	c0.12	
v/s Ratio Perm			0.01			0.08			0.01			0.02
v/c Ratio	0.26	0.20	0.04	0.28	0.47	0.27	0.62	0.22	0.03	0.43	0.46	0.06
Uniform Delay, d1	25.6	15.8	15.1	25.6	17.2	16.2	23.6	15.4	14.6	24.1	17.6	15.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.1	0.0	0.8	0.4	0.3	2.6	0.1	0.0	0.9	0.3	0.1
Delay (s)	26.3	15.9	15.1	26.4	17.5	16.5	26.2	15.5	14.6	25.0	17.9	15.9
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		17.5			17.6			19.9			18.9	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	56.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	52.5%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Volume (vph)	111	249	104	100	696	88	112	264	58	104	449	99
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	271	113	109	757	96	122	287	63	113	488	108
RTOR Reduction (vph)	0	0	77	0	0	65	0	0	47	0	0	80
Lane Group Flow (vph)	121	271	36	109	757	31	122	287	16	113	488	28
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.3	19.4	19.4	5.3	19.4	19.4	5.3	15.6	15.6	5.3	15.6	15.6
Effective Green, g (s)	5.3	19.9	19.9	5.3	19.9	19.9	5.3	16.1	16.1	5.3	16.1	16.1
Actuated g/C Ratio	0.08	0.32	0.32	0.08	0.32	0.32	0.08	0.26	0.26	0.08	0.26	0.26
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	291	1125	494	291	1125	494	291	910	400	291	910	400
v/s Ratio Prot	c0.04	0.08		0.03	c0.21		c0.04	0.08		0.03	c0.14	
v/s Ratio Perm			0.02			0.02			0.01			0.02
v/c Ratio	0.42	0.24	0.07	0.37	0.67	0.06	0.42	0.32	0.04	0.39	0.54	0.07
Uniform Delay, d1	27.2	15.8	14.9	27.1	18.5	14.9	27.2	18.8	17.5	27.1	20.0	17.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.1	0.1	0.8	1.6	0.1	1.0	0.2	0.0	0.9	0.6	0.1
Delay (s)	28.1	15.9	15.0	27.9	20.1	14.9	28.2	19.0	17.5	28.0	20.6	17.7
Level of Service	C	B	B	C	C	B	C	B	B	C	C	B
Approach Delay (s)		18.6			20.5			21.2			21.4	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	62.6	Sum of lost time (s)	16.0
Intersection Capacity Utilization	55.4%	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												
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	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.97	0.95	1.00	0.97	0.95		1.00	0.95	0.88
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.98	1.00	0.99		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.96		1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4879		3433	3539	1549	3433	3311		1770	3539	2726
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4879		3433	3539	1549	3433	3311		1770	3539	2726
Volume (vph)	185	949	294	233	995	172	180	299	182	80	499	426
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	201	1032	320	253	1082	187	196	325	198	87	542	463
RTOR Reduction (vph)	0	57	0	0	0	115	0	107	0	0	0	285
Lane Group Flow (vph)	201	1295	0	253	1082	72	196	416	0	87	542	178
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	8.0	33.3		9.0	34.3	34.3	10.2	24.3		6.4	20.5	20.5
Effective Green, g (s)	8.0	33.8		9.0	34.8	34.8	10.2	24.8		6.4	21.0	21.0
Actuated g/C Ratio	0.09	0.38		0.10	0.39	0.39	0.11	0.28		0.07	0.23	0.23
Clearance Time (s)	4.0	4.5		4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	305	1832		343	1368	599	389	912		126	826	636
v/s Ratio Prot	0.06	0.27		c0.07	c0.31		0.06	c0.13		0.05	c0.15	
v/s Ratio Perm						0.05						0.07
v/c Ratio	0.66	0.71		0.74	0.79	0.12	0.50	0.46		0.69	0.66	0.28
Uniform Delay, d1	39.7	23.9		39.4	24.4	17.8	37.5	27.0		40.8	31.2	28.3
Progression Factor	0.81	0.63		0.93	0.80	0.19	0.40	0.17		1.00	1.00	1.00
Incremental Delay, d2	4.7	2.1		6.6	3.9	0.3	0.8	0.3		15.1	1.9	0.2
Delay (s)	36.9	17.3		43.1	23.4	3.7	15.8	4.8		55.9	33.1	28.5
Level of Service	D	B		D	C	A	B	A		E	C	C
Approach Delay (s)		19.8			24.3			7.8			33.0	
Approach LOS		B			C			A			C	

Intersection Summary			
HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.5%	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												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.96		1.00	0.98		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3375		1770	3470		3433	3539	1552	1770	3539	1552
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3375		1770	3470		3433	3539	1552	1770	3539	1552
Volume (vph)	54	635	240	89	740	97	359	253	16	107	318	43
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	690	261	97	804	105	390	275	17	116	346	47
RTOR Reduction (vph)	0	42	0	0	10	0	0	0	12	0	0	37
Lane Group Flow (vph)	59	909	0	97	899	0	390	275	5	116	346	10
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	4.2	24.2		5.8	25.8		11.1	19.6	19.6	6.5	15.0	15.0
Effective Green, g (s)	4.2	24.7		5.8	26.3		11.1	20.1	20.1	6.5	15.5	15.5
Actuated g/C Ratio	0.06	0.34		0.08	0.36		0.15	0.27	0.27	0.09	0.21	0.21
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	102	1140		140	1248		521	973	427	157	750	329
v/s Ratio Prot	0.03	c0.27		c0.05	0.26		c0.11	0.08		0.07	c0.10	
v/s Ratio Perm									0.00			0.01
v/c Ratio	0.58	0.80		0.69	0.72		0.75	0.28	0.01	0.74	0.46	0.03
Uniform Delay, d1	33.6	21.9		32.8	20.2		29.7	20.8	19.3	32.5	25.2	22.8
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.7	4.0		13.8	2.1		5.8	0.2	0.0	16.5	0.5	0.0
Delay (s)	41.3	25.9		46.6	22.3		35.5	21.0	19.3	49.0	25.6	22.9
Level of Service	D	C		D	C		D	C	B	D	C	C
Approach Delay (s)		26.8			24.6			29.2			30.7	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	73.1	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.7%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1554	3433	3539	1554	3433	5085	1534	3433	5085	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1554	3433	3539	1554	3433	5085	1534	3433	5085	1554
Volume (vph)	118	193	24	87	255	86	119	643	97	44	468	93
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	128	210	26	95	277	93	129	699	105	48	509	101
RTOR Reduction (vph)	0	0	21	0	0	76	0	0	61	0	0	64
Lane Group Flow (vph)	128	210	5	95	277	17	129	699	44	48	509	37
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.4	11.8	11.8	3.8	10.2	10.2	5.5	24.6	24.6	2.3	21.4	21.4
Effective Green, g (s)	5.9	12.3	12.3	4.3	10.7	10.7	5.5	25.1	25.1	2.3	21.9	21.9
Actuated g/C Ratio	0.10	0.21	0.21	0.07	0.18	0.18	0.09	0.42	0.42	0.04	0.36	0.36
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	338	725	319	246	631	277	315	2127	642	132	1856	567
v/s Ratio Prot	c0.04	0.06		0.03	c0.08		c0.04	c0.14		0.01	0.10	
v/s Ratio Perm			0.00			0.01			0.03			0.02
v/c Ratio	0.38	0.29	0.02	0.39	0.44	0.06	0.41	0.33	0.07	0.36	0.27	0.07
Uniform Delay, d1	25.3	20.2	19.0	26.6	22.0	20.5	25.7	11.8	10.4	28.1	13.4	12.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.2	0.0	1.0	0.5	0.1	0.9	0.1	0.0	1.7	0.1	0.0
Delay (s)	26.0	20.4	19.0	27.6	22.5	20.6	26.6	11.9	10.5	29.8	13.5	12.4
Level of Service	C	C	B	C	C	C	C	B	B	C	B	B
Approach Delay (s)		22.3			23.1			13.7			14.5	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	46.7%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1554	3433	3539	1554	3433	3539	1554	3433	3539	1554
Volume (vph)	97	479	39	71	214	129	50	640	121	87	493	56
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	521	42	77	233	140	54	696	132	95	536	61
RTOR Reduction (vph)	0	0	30	0	0	103	0	0	90	0	0	41
Lane Group Flow (vph)	105	521	12	77	233	37	54	696	42	95	536	20
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.4	17.4	17.4	3.5	15.5	15.5	3.3	18.7	18.7	3.6	19.0	19.0
Effective Green, g (s)	5.4	17.9	17.9	3.5	16.0	16.0	3.3	19.2	19.2	3.6	19.5	19.5
Actuated g/C Ratio	0.09	0.30	0.30	0.06	0.27	0.27	0.05	0.32	0.32	0.06	0.32	0.32
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	308	1052	462	200	941	413	188	1129	496	205	1146	503
v/s Ratio Prot	c0.03	c0.15		0.02	0.07		0.02	c0.20		c0.03	0.15	
v/s Ratio Perm			0.01			0.02			0.03			0.01
v/c Ratio	0.34	0.50	0.03	0.39	0.25	0.09	0.29	0.62	0.08	0.46	0.47	0.04
Uniform Delay, d1	25.7	17.4	15.0	27.3	17.4	16.6	27.3	17.4	14.4	27.4	16.2	13.9
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.7	0.4	0.0	1.2	0.1	0.1	0.8	1.0	0.1	1.7	0.3	0.0
Delay (s)	26.4	17.8	15.0	28.5	17.5	16.7	28.2	18.4	14.4	29.0	16.5	14.0
Level of Service	C	B	B	C	B	B	C	B	B	C	B	B
Approach Delay (s)		19.0			19.2			18.4			18.0	
Approach LOS		B			B			B			B	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	54.9%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group

33: Mountain View Ave & McCall Ave

HCM Signalized Intersection Capacity Analysis

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Volume (vph)	120	616	66	275	381	133	58	177	111	120	213	68
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	130	670	72	299	414	145	63	192	121	130	232	74
RTOR Reduction (vph)	0	0	50	0	0	91	0	0	97	0	0	57
Lane Group Flow (vph)	130	670	22	299	414	54	63	192	24	130	232	17
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.6	18.4	18.4	10.0	22.8	22.8	3.7	11.9	11.9	5.6	13.8	13.8
Effective Green, g (s)	5.6	18.9	18.9	10.0	23.3	23.3	3.7	12.4	12.4	5.6	14.3	14.3
Actuated g/C Ratio	0.09	0.30	0.30	0.16	0.37	0.37	0.06	0.20	0.20	0.09	0.23	0.23
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	306	1063	467	546	1311	575	202	698	306	306	805	353
v/s Ratio Prot	0.04	c0.19		c0.09	0.12		0.02	0.05		c0.04	c0.07	
v/s Ratio Perm			0.01			0.03			0.02			0.01
v/c Ratio	0.42	0.63	0.05	0.55	0.32	0.09	0.31	0.28	0.08	0.42	0.29	0.05
Uniform Delay, d1	27.1	19.0	15.6	24.4	14.1	12.9	28.4	21.4	20.6	27.1	20.1	19.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	1.2	0.0	1.1	0.1	0.1	0.9	0.2	0.1	1.0	0.2	0.1
Delay (s)	28.1	20.2	15.6	25.5	14.3	13.0	29.3	21.6	20.7	28.1	20.3	19.0
Level of Service	C	C	B	C	B	B	C	C	C	C	C	B
Approach Delay (s)		21.0			18.0			22.6			22.4	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	62.9	Sum of lost time (s)	12.0
Intersection Capacity Utilization	53.7%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Volume (vph)	402	901	223	66	833	149	262	415	134	154	270	255
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	437	979	242	72	905	162	285	451	146	167	293	277
RTOR Reduction (vph)	0	0	138	0	0	107	0	0	114	0	0	174
Lane Group Flow (vph)	437	979	104	72	905	55	285	451	32	167	293	103
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	11.2	32.0	32.0	4.1	24.9	24.9	8.2	16.3	16.3	6.1	14.2	14.2
Effective Green, g (s)	11.2	32.5	32.5	4.1	25.4	25.4	8.2	16.8	16.8	6.1	14.7	14.7
Actuated g/C Ratio	0.15	0.43	0.43	0.05	0.34	0.34	0.11	0.22	0.22	0.08	0.19	0.19
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	509	1523	668	186	1191	522	373	1131	345	277	990	302
v/s Ratio Prot	c0.13	0.28		0.02	c0.26		c0.08	c0.09		0.05	0.06	
v/s Ratio Perm			0.07			0.04			0.02			0.07
v/c Ratio	0.86	0.64	0.16	0.39	0.76	0.10	0.76	0.40	0.09	0.60	0.30	0.34
Uniform Delay, d1	31.4	16.9	13.1	34.5	22.3	17.2	32.7	25.0	23.3	33.5	26.0	26.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	13.5	0.9	0.1	1.3	2.8	0.1	9.0	0.2	0.1	3.7	0.2	0.7
Delay (s)	44.8	17.9	13.2	35.8	25.2	17.3	41.7	25.3	23.4	37.2	26.1	26.9
Level of Service	D	B	B	D	C	B	D	C	C	D	C	C
Approach Delay (s)		24.3			24.7			30.3			28.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	75.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.4%	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												
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	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	0.95	1.00	0.97	0.95	1.00	0.97	1.00	1.00	1.00	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.96	1.00	1.00	0.98	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	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	0.97	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1770	3539	1549	3433	3539	1526	3433	1863	1549	1770	1791	
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	
Satd. Flow (perm)	1770	3539	1549	3433	3539	1526	3433	1863	1549	1770	1791	
Volume (vph)	123	1284	82	119	819	118	109	142	557	24	144	42
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	134	1396	89	129	890	128	118	154	605	26	157	46
RTOR Reduction (vph)	0	0	45	0	0	76	0	0	180	0	11	0
Lane Group Flow (vph)	134	1396	44	129	890	52	118	154	425	26	192	0
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			
Actuated Green, G (s)	8.1	38.5	38.5	5.9	36.3	36.3	5.9	26.4	26.4	2.7	23.2	
Effective Green, g (s)	8.1	39.0	39.0	5.9	36.8	36.8	5.9	26.9	26.9	2.7	23.7	
Actuated g/C Ratio	0.09	0.43	0.43	0.07	0.41	0.41	0.07	0.30	0.30	0.03	0.26	
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	158	1525	668	224	1439	621	224	554	460	53	469	
v/s Ratio Prot	c0.08	c0.39		0.04	0.25		c0.03	0.08		0.01	0.11	
v/s Ratio Perm			0.03			0.03			c0.27			
v/c Ratio	0.85	0.92	0.07	0.58	0.62	0.08	0.53	0.28	0.92	0.49	0.41	
Uniform Delay, d1	40.6	24.2	15.1	41.1	21.3	16.5	40.9	24.4	30.8	43.2	27.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	32.2	8.9	0.0	3.6	0.8	0.1	2.2	0.3	24.3	7.0	0.6	
Delay (s)	72.8	33.1	15.1	44.6	22.1	16.6	43.2	24.6	55.1	50.2	28.2	
Level of Service	E	C	B	D	C	B	D	C	E	D	C	
Approach Delay (s)		35.4			24.0			48.1			30.7	
Approach LOS		D			C			D			C	

Intersection Summary			
HCM Average Control Delay	34.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1548	3433	3539	1548	3433	3539	1548	3433	3539	1548
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1548	3433	3539	1548	3433	3539	1548	3433	3539	1548
Volume (vph)	104	1321	200	279	880	96	124	455	213	117	248	30
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	1436	217	303	957	104	135	495	232	127	270	33
RTOR Reduction (vph)	0	0	106	0	0	55	0	0	140	0	0	26
Lane Group Flow (vph)	113	1436	111	303	957	49	135	495	92	127	270	7
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.1	40.0	40.0	9.0	42.9	42.9	7.7	19.1	19.1	7.6	19.0	19.0
Effective Green, g (s)	6.1	40.5	40.5	9.0	43.4	43.4	7.7	19.6	19.6	7.6	19.5	19.5
Actuated g/C Ratio	0.07	0.44	0.44	0.10	0.47	0.47	0.08	0.21	0.21	0.08	0.21	0.21
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	226	1546	676	333	1657	725	285	748	327	281	744	326
v/s Ratio Prot	0.03	c0.41		c0.09	c0.27		c0.04	c0.14		0.04	0.08	
v/s Ratio Perm			0.07			0.03			0.06			0.00
v/c Ratio	0.50	0.93	0.16	0.91	0.58	0.07	0.47	0.66	0.28	0.45	0.36	0.02
Uniform Delay, d1	41.8	24.7	15.8	41.4	18.0	13.5	40.6	33.5	30.7	40.6	31.3	29.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.7	10.1	0.1	27.4	0.5	0.0	1.2	2.2	0.5	1.2	0.3	0.0
Delay (s)	43.6	34.8	15.9	68.8	18.5	13.6	41.8	35.7	31.1	41.7	31.6	29.1
Level of Service	D	C	B	E	B	B	D	D	C	D	C	C
Approach Delay (s)		33.1			29.3			35.4			34.4	
Approach LOS		C			C			D			C	

Intersection Summary			
HCM Average Control Delay	32.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	92.7	Sum of lost time (s)	16.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	0.97	0.95	0.95	0.88
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3433	1583	3433	3539	3539	2787
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3433	1583	3433	3539	3539	2787
Volume (vph)	868	94	89	575	476	626
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	943	102	97	625	517	680
RTOR Reduction (vph)	0	66	0	0	0	269
Lane Group Flow (vph)	943	36	97	625	517	411
Turn Type		Perm	Prot			custom
Protected Phases	4		2		3	8
Permitted Phases		4		2		
Actuated Green, G (s)	22.4	22.4	17.4	17.4	12.6	39.0
Effective Green, g (s)	22.9	22.9	17.9	17.9	12.6	39.5
Actuated g/C Ratio	0.35	0.35	0.27	0.27	0.19	0.60
Clearance Time (s)	4.5	4.5	4.5	4.5	4.0	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	1202	554	940	969	682	1683
v/s Ratio Prot	c0.27		0.03		c0.15	0.15
v/s Ratio Perm		0.02		c0.18		
v/c Ratio	0.78	0.06	0.10	0.64	0.76	0.24
Uniform Delay, d1	19.0	14.1	17.8	20.9	25.0	6.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.4	0.0	0.0	1.5	4.8	0.1
Delay (s)	22.5	14.2	17.8	22.4	29.8	6.1
Level of Service	C	B	B	C	C	A
Approach Delay (s)	21.7			21.8	16.3	
Approach LOS	C			C	B	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	65.4	Sum of lost time (s)	12.0
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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1551	3433	3539	1551	3433	5085	1551	3433	5085	1551
Volume (vph)	177	566	199	30	220	213	180	1124	115	386	1116	83
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	615	216	33	239	232	196	1222	125	420	1213	90
RTOR Reduction (vph)	0	0	154	0	0	178	0	0	86	0	0	59
Lane Group Flow (vph)	192	615	62	33	239	54	196	1222	39	420	1213	31
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.8	21.8	21.8	3.6	17.6	17.6	8.3	23.4	23.4	11.3	26.4	26.4
Effective Green, g (s)	7.8	22.3	22.3	3.6	18.1	18.1	8.3	23.9	23.9	11.3	26.9	26.9
Actuated g/C Ratio	0.10	0.29	0.29	0.05	0.23	0.23	0.11	0.31	0.31	0.15	0.35	0.35
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	347	1024	449	160	831	364	370	1576	481	503	1774	541
v/s Ratio Prot	c0.06	c0.17		0.01	0.07		0.06	c0.24		c0.12	c0.24	
v/s Ratio Perm			0.04			0.04			0.02			0.02
v/c Ratio	0.55	0.60	0.14	0.21	0.29	0.15	0.53	0.78	0.08	0.83	0.68	0.06
Uniform Delay, d1	33.0	23.6	20.3	35.4	24.2	23.4	32.6	24.2	18.8	32.0	21.5	16.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.9	1.0	0.1	0.6	0.2	0.2	1.4	2.5	0.1	11.4	1.1	0.0
Delay (s)	34.9	24.6	20.4	36.0	24.4	23.6	33.9	26.6	18.9	43.4	22.6	16.7
Level of Service	C	C	C	D	C	C	C	C	B	D	C	B
Approach Delay (s)		25.6			24.8			26.9			27.3	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	77.1	Sum of lost time (s)	16.0
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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1553	3433	3539	1553	3433	3539	1553	3433	3539	1553
Volume (vph)	211	769	109	88	363	84	150	556	104	116	399	159
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	229	836	118	96	395	91	163	604	113	126	434	173
RTOR Reduction (vph)	0	0	79	0	0	63	0	0	82	0	0	125
Lane Group Flow (vph)	229	836	39	96	395	28	163	604	31	126	434	48
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	7.1	22.1	22.1	5.2	20.2	20.2	5.5	18.3	18.3	5.4	18.2	18.2
Effective Green, g (s)	7.1	22.6	22.6	5.2	20.7	20.7	5.5	18.8	18.8	5.4	18.7	18.7
Actuated g/C Ratio	0.10	0.33	0.33	0.08	0.30	0.30	0.08	0.28	0.28	0.08	0.27	0.27
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	358	1176	516	263	1077	473	278	978	429	273	973	427
v/s Ratio Prot	c0.07	c0.24		0.03	0.11		c0.05	c0.17		0.04	0.12	
v/s Ratio Perm			0.03			0.02			0.02			0.03
v/c Ratio	0.64	0.71	0.08	0.37	0.37	0.06	0.59	0.62	0.07	0.46	0.45	0.11
Uniform Delay, d1	29.2	19.8	15.5	29.8	18.5	16.7	30.2	21.5	18.2	29.9	20.4	18.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	3.7	2.1	0.1	0.9	0.2	0.1	3.1	1.2	0.1	1.2	0.3	0.1
Delay (s)	33.0	21.9	15.6	30.7	18.7	16.8	33.3	22.6	18.2	31.1	20.7	18.6
Level of Service	C	C	B	C	B	B	C	C	B	C	C	B
Approach Delay (s)		23.4			20.4			24.0			22.0	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	68.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.0%	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												
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	4.0		4.0	4.0	4.0
Lane Util. Factor	0.97	0.91		0.97	0.95	1.00	0.97	0.95		1.00	0.95	0.88
Frpb, ped/bikes	1.00	0.99		1.00	1.00	0.97	1.00	0.99		1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00	0.85	1.00	0.94		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	3433	4882		3433	3539	1544	3433	3282		1770	3539	2717
Flt Permitted	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	3433	4882		3433	3539	1544	3433	3282		1770	3539	2717
Volume (vph)	452	2041	609	317	1697	294	355	331	239	164	658	522
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	491	2218	662	345	1845	320	386	360	260	178	715	567
RTOR Reduction (vph)	0	45	0	0	0	109	0	111	0	0	0	208
Lane Group Flow (vph)	491	2835	0	345	1845	211	386	509	0	178	715	359
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot		Perm	Prot			Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases						8						6
Actuated Green, G (s)	14.0	55.0		10.0	51.0	51.0	11.0	24.9		13.1	27.0	27.0
Effective Green, g (s)	14.0	55.5		10.0	51.5	51.5	11.0	25.4		13.1	27.5	27.5
Actuated g/C Ratio	0.12	0.46		0.08	0.43	0.43	0.09	0.21		0.11	0.23	0.23
Clearance Time (s)	4.0	4.5		4.0	4.5	4.5	4.0	4.5		4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	401	2258		286	1519	663	315	695		193	811	623
v/s Ratio Prot	c0.14	c0.58		0.10	0.52		c0.11	0.16		0.10	c0.20	
v/s Ratio Perm						0.14						0.13
v/c Ratio	1.22	1.26		1.21	1.21	0.32	1.23	0.73		0.92	0.88	0.58
Uniform Delay, d1	53.0	32.2		55.0	34.2	22.6	54.5	44.1		52.9	44.7	41.1
Progression Factor	0.77	0.60		0.85	0.83	0.82	0.44	0.63		1.00	1.00	1.00
Incremental Delay, d2	108.7	116.4		108.0	99.7	0.6	113.2	1.7		43.2	11.1	1.3
Delay (s)	149.8	135.8		154.9	128.2	19.2	136.9	29.5		96.1	55.7	42.4
Level of Service	F	F		F	F	B	F	C		F	E	D
Approach Delay (s)		137.9			117.9			70.7			55.5	
Approach LOS		F			F			E			E	

Intersection Summary			
HCM Average Control Delay	109.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	105.2%	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												
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	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		0.97	0.95	1.00	1.00	0.95	1.00
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.97		1.00	1.00		1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1770	3425		1770	3519		3433	3539	1544	1770	3539	1544
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	1770	3425		1770	3519		3433	3539	1544	1770	3539	1544
Volume (vph)	136	1600	363	177	1019	34	482	431	12	216	602	112
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	148	1739	395	192	1108	37	524	468	13	235	654	122
RTOR Reduction (vph)	0	16	0	0	2	0	0	0	10	0	0	95
Lane Group Flow (vph)	148	2118	0	192	1143	0	524	468	3	235	654	27
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot			Prot			Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases									2			6
Actuated Green, G (s)	12.3	51.5		10.0	49.2		13.0	26.6	26.6	12.0	25.6	25.6
Effective Green, g (s)	12.3	52.0		10.0	49.7		13.0	27.1	27.1	12.0	26.1	26.1
Actuated g/C Ratio	0.11	0.44		0.09	0.42		0.11	0.23	0.23	0.10	0.22	0.22
Clearance Time (s)	4.0	4.5		4.0	4.5		4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	186	1521		151	1494		381	819	357	181	789	344
v/s Ratio Prot	0.08	c0.62		c0.11	0.32		c0.15	0.13		0.13	c0.18	
v/s Ratio Perm									0.00			0.02
v/c Ratio	0.80	1.39		1.27	0.77		1.38	0.57	0.01	1.30	0.83	0.08
Uniform Delay, d1	51.2	32.5		53.5	28.7		52.0	39.9	34.7	52.5	43.4	36.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	20.5	180.7		163.8	2.4		184.7	1.0	0.0	168.7	7.2	0.1
Delay (s)	71.7	213.2		217.4	31.1		236.8	40.8	34.7	221.2	50.6	36.1
Level of Service	E	F		F	C		F	D	C	F	D	D
Approach Delay (s)		204.1			57.9			142.9			88.5	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM Average Control Delay	137.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.19		
Actuated Cycle Length (s)	117.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.97	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1553	3433	3539	1553	3433	5085	1533	3433	5085	1553
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1553	3433	3539	1553	3433	5085	1533	3433	5085	1553
Volume (vph)	126	409	133	108	420	108	72	843	156	149	756	130
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	137	445	145	117	457	117	78	916	170	162	822	141
RTOR Reduction (vph)	0	0	109	0	0	88	0	0	115	0	0	92
Lane Group Flow (vph)	137	445	36	117	457	29	78	916	55	162	822	49
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.2	15.3	15.3	5.1	15.2	15.2	3.7	19.9	19.9	5.5	21.7	21.7
Effective Green, g (s)	5.7	15.8	15.8	5.6	15.7	15.7	3.7	20.4	20.4	5.5	22.2	22.2
Actuated g/C Ratio	0.09	0.25	0.25	0.09	0.25	0.25	0.06	0.32	0.32	0.09	0.35	0.35
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	309	883	388	304	878	385	201	1639	494	298	1783	545
v/s Ratio Prot	c0.04	0.13		0.03	c0.13		0.02	c0.18		c0.05	0.16	
v/s Ratio Perm			0.02			0.02			0.04			0.03
v/c Ratio	0.44	0.50	0.09	0.38	0.52	0.08	0.39	0.56	0.11	0.54	0.46	0.09
Uniform Delay, d1	27.3	20.4	18.2	27.2	20.5	18.2	28.7	17.7	15.1	27.7	15.9	13.8
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	1.0	0.5	0.1	0.8	0.6	0.1	1.2	0.4	0.1	2.0	0.2	0.1
Delay (s)	28.3	20.8	18.4	28.0	21.1	18.3	30.0	18.1	15.2	29.7	16.1	13.9
Level of Service	C	C	B	C	C	B	C	B	B	C	B	B
Approach Delay (s)		21.8			21.8			18.5			17.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	63.3	Sum of lost time (s)	16.0
Intersection Capacity Utilization	53.9%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1552	3433	3539	1552	3433	3539	1552	3433	3539	1552
Volume (vph)	85	321	63	164	549	124	31	804	113	170	966	117
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	349	68	178	597	135	34	874	123	185	1050	127
RTOR Reduction (vph)	0	0	51	0	0	100	0	0	78	0	0	77
Lane Group Flow (vph)	92	349	17	178	597	35	34	874	45	185	1050	50
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	5.2	17.6	17.6	5.6	18.0	18.0	3.3	25.3	25.3	5.6	27.6	27.6
Effective Green, g (s)	5.2	18.1	18.1	5.6	18.5	18.5	3.3	25.8	25.8	5.6	28.1	28.1
Actuated g/C Ratio	0.07	0.25	0.25	0.08	0.26	0.26	0.05	0.36	0.36	0.08	0.40	0.40
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	251	901	395	270	921	404	159	1284	563	270	1399	613
v/s Ratio Prot	0.03	0.10		c0.05	c0.17		0.01	0.25		c0.05	c0.30	
v/s Ratio Perm			0.01			0.02			0.03			0.03
v/c Ratio	0.37	0.39	0.04	0.66	0.65	0.09	0.21	0.68	0.08	0.69	0.75	0.08
Uniform Delay, d1	31.4	21.9	20.0	31.8	23.4	19.9	32.7	19.2	14.9	31.9	18.5	13.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	0.9	0.3	0.0	5.7	1.6	0.1	0.7	1.5	0.1	7.0	2.3	0.1
Delay (s)	32.3	22.2	20.0	37.5	25.0	20.0	33.3	20.7	14.9	38.9	20.8	13.5
Level of Service	C	C	C	D	C	C	C	C	B	D	C	B
Approach Delay (s)		23.7			26.7			20.4			22.6	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	71.1	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.0%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1551	3433	3539	1551	3433	3539	1551	3433	3539	1551
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1551	3433	3539	1551	3433	3539	1551	3433	3539	1551
Volume (vph)	174	526	78	363	803	184	94	413	418	235	301	181
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	572	85	395	873	200	102	449	454	255	327	197
RTOR Reduction (vph)	0	0	61	0	0	129	0	0	194	0	0	141
Lane Group Flow (vph)	189	572	24	395	873	71	102	449	260	255	327	56
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	6.1	21.4	21.4	11.2	26.5	26.5	5.7	18.5	18.5	8.2	21.0	21.0
Effective Green, g (s)	6.1	21.9	21.9	11.2	27.0	27.0	5.7	19.0	19.0	8.2	21.5	21.5
Actuated g/C Ratio	0.08	0.29	0.29	0.15	0.35	0.35	0.07	0.25	0.25	0.11	0.28	0.28
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	274	1016	445	504	1252	549	256	881	386	369	997	437
v/s Ratio Prot	0.06	0.16		c0.12	c0.25		0.03	0.13		c0.07	0.09	
v/s Ratio Perm			0.02			0.05			c0.17			0.04
v/c Ratio	0.69	0.56	0.05	0.78	0.70	0.13	0.40	0.51	0.67	0.69	0.33	0.13
Uniform Delay, d1	34.2	23.1	19.7	31.4	21.1	16.7	33.7	24.6	25.9	32.8	21.7	20.4
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	7.1	0.7	0.1	7.8	1.7	0.1	1.0	0.5	4.6	5.5	0.2	0.1
Delay (s)	41.2	23.8	19.8	39.2	22.9	16.8	34.7	25.1	30.5	38.3	21.9	20.5
Level of Service	D	C	B	D	C	B	C	C	C	D	C	C
Approach Delay (s)		27.3			26.4			28.5			26.9	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	76.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	61.8%	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												
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	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	0.95	1.00	0.97	0.95	1.00	0.97	0.91	1.00	0.97	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.97	1.00	1.00	0.97
Flpb, ped/bikes	1.00	1.00	1.00	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	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	3433	3539	1544	3433	3539	1544	3433	5085	1544	3433	5085	1544
Flt Permitted	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (perm)	3433	3539	1544	3433	3539	1544	3433	5085	1544	3433	5085	1544
Volume (vph)	643	1200	301	131	1093	342	380	754	167	313	904	814
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	699	1304	327	142	1188	372	413	820	182	340	983	885
RTOR Reduction (vph)	0	0	157	0	0	186	0	0	110	0	0	173
Lane Group Flow (vph)	699	1304	170	142	1188	186	413	820	72	340	983	712
Confl. Peds. (#/hr)	10		10	10		10	10		10	10		10
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Actuated Green, G (s)	18.0	43.6	43.6	7.9	33.5	33.5	12.0	35.5	35.5	16.0	39.5	39.5
Effective Green, g (s)	18.0	44.1	44.1	7.9	34.0	34.0	12.0	36.0	36.0	16.0	40.0	40.0
Actuated g/C Ratio	0.15	0.37	0.37	0.07	0.28	0.28	0.10	0.30	0.30	0.13	0.33	0.33
Clearance Time (s)	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5	4.0	4.5	4.5
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	515	1301	567	226	1003	437	343	1526	463	458	1695	515
v/s Ratio Prot	c0.20	0.37		0.04	c0.34		c0.12	0.16		0.10	0.19	
v/s Ratio Perm			0.11			0.12			0.05			c0.46
v/c Ratio	1.36	1.00	0.30	0.63	1.18	0.43	1.20	0.54	0.16	0.74	0.58	1.38
Uniform Delay, d1	51.0	37.9	27.0	54.6	43.0	35.1	54.0	35.1	30.8	50.0	33.1	40.0
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	173.1	25.5	0.3	5.4	93.3	0.7	116.3	0.4	0.2	6.4	0.5	184.2
Delay (s)	224.1	63.5	27.3	60.0	136.3	35.7	170.3	35.4	31.0	56.4	33.5	224.2
Level of Service	F	E	C	E	F	D	F	D	C	E	C	F
Approach Delay (s)		106.6			107.9			74.2			113.5	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	102.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.5%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group