Grant Creek Village Residential Development Traffic Impact Study

Missoula, Montana

Prepared For:

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March, 2020

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Table of Contents

List of Figures

List of Tables

Grant Creek Village
Traffic Impact Study
Missoula, Montana

A. EXECUTIVE SUMMARY

The Grant Creek Village development is a 44-acre multi-family residential project located north of Interstate-90 and west of Grant Creek Road in Missoula, Montana. The development would be constructed in several phases over the next 5-10 years. Phases 1A and 1B would develop 268 units by the end of 2021 and would produce 1,458 new vehicle trips. At full buildout the development would include approximately 950 multi-family residential units. The Grant Creek Village would access Grant Creek Road and North Reserve Street using Expo Parkway and Stonebridge Road. As proposed, the Grant Creek Village would not create any new roadway capacity problems in this area. However, the additional traffic from the project will contribute to existing operational issues at the I-90 westbound ramp signalized intersection, which would benefit from roadway modifications. It is recommended that a new southbound through lane be installed at this intersection to prevent excessive vehicle cueing on the north leg of the intersection by Phase 1B of the project. Overall, the Grant Creek Village will account for an 18% and 35% percent increase in traffic volumes on Grant Creek Road with Phases 1A and 1B.

B. PROJECT DESCRIPTION

This document studies the possible effects on the surrounding road system from a proposed residential apartment complex located west of Grant Creek Road within the City of Missoula. The document provides information regarding possible traffic impacts in the area and identifies traffic mitigation efforts that the development may require. The development would ultimately include up to 950 residential apartment units constructed in phases over the next 5-10 years. This report focus on Phases 1A and Phases 1B which would be completed by 2021.

C. EXISTING CONDITIONS

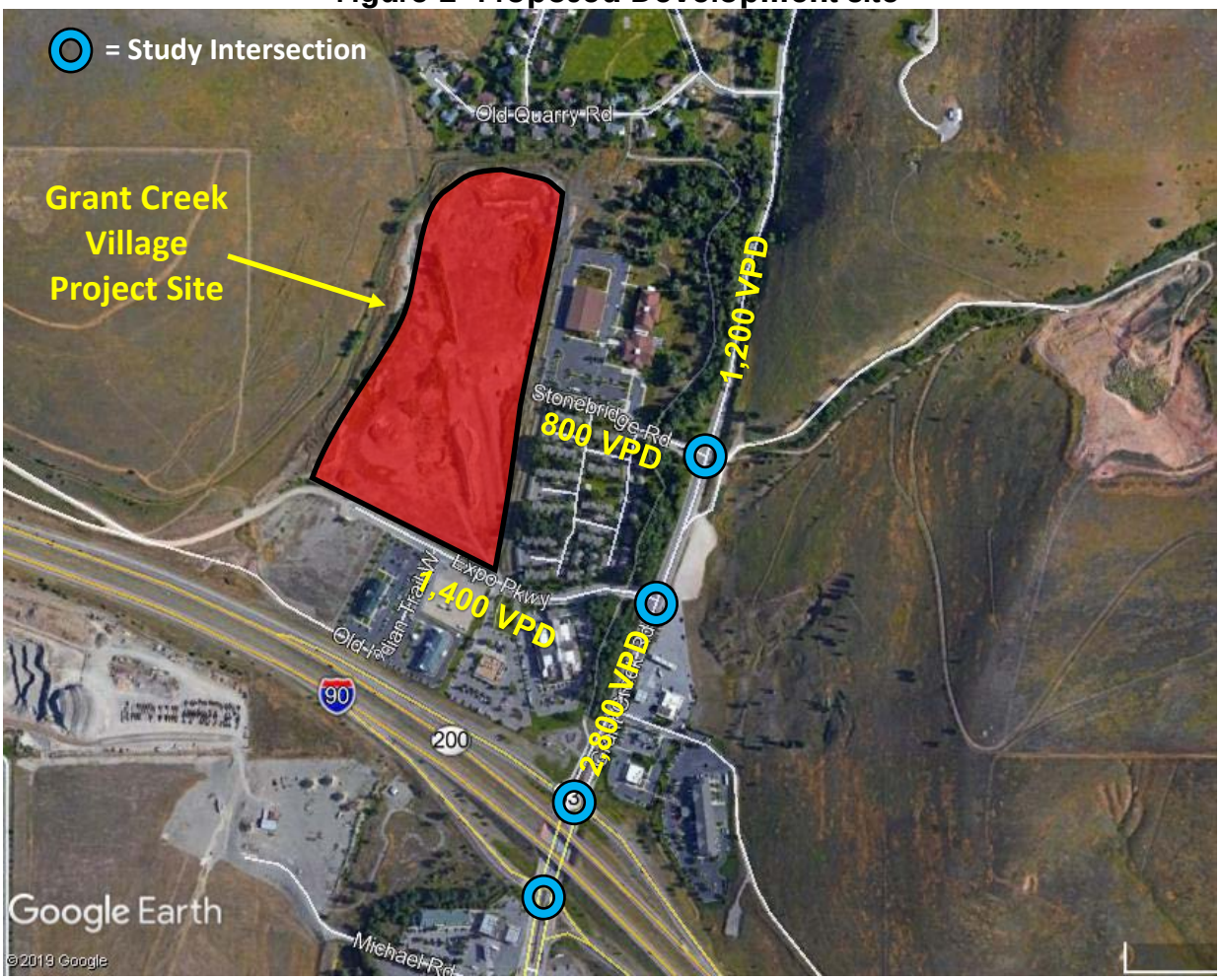
The proposed development property currently consists of a 44-acre parcel of land located north of Expo Parkway at the north end of Reserve Street (Grant Creek Road). The property currently consists of a gravel and rock quarry. The surrounding area is comprised of a mix of residential and commercial areas north of Interstate-90. See **Figure 1** for a location map of the proposed development.

Adjacent Roadways

North Reserve Street (Grant Creek Road) is a north/south principal arterial route that extends through the western side of Missoula. South of the Interstate-90 interchange the

roadway has a five lane urban cross-section and a speed limit of 45 MPH. Both interchange ramps with I-90 are currently signalized. North of the interchange the road narrows to a three-lane cross-section and becomes Grant Creek Road. The posted speed limit on Grant Creek Road is 45 MPH. The Grant Creek Trail is located along the west side of the road. The route is characterized by commercial properties adjacent to the road roadway which transition to residential land uses north of Expo Parkway. Traffic data available from MDT indicates that the road currently carries over 20,000 VPD south of the I-90 interchange and 1,200 north of Expo Parkway.

Figure 1- Proposed Development Site



Expo Parkway is a two-lane east/west local roadway which extends west from Grant Creek Road and provides access to the commercial and residential properties in this area including hotels, restaurants, and the Cottonwoods Apartments. Expo Parkway has a paved width of 42 feet with on-street parking and sidewalks. Traffic data collected by ATS indicates that the roadway currently carries 1,400 VPD.

Stonebridge Road is a two-lane east/west local route which extends west from Grant Creek Road 600 feet north of Expo Parkway. The road has a paved width of 40 feet with on-street parking and sidewalks along the north side of the road. The road provides access to The Cottonwoods Apartments and the Rocky Mountain Elk Foundation. Traffic data collected by ATS indicates that the roadway currently carries 800 VPD.

Traffic Data

In October 2019 Abelin Traffic Services (ATS) collected traffic data at area intersections to evaluate current operation characteristics. These counts included peak-hour turning movement counts at the intersections of Grant Creek Road with Expo Parkways and Stonebridge Road. Peak-hour traffic data for the I-90 interchange ramps was obtained from traffic counts conducted in April 2018 by MDT. ATS also performed 24-hour hose counts on Expo Parkway and Stonebridge Road. The raw traffic data is included in **Appendix A** of this report.

The raw data collected for this project may be adjusted for seasonal variations using data collected from MDT's automatic count station located on Orange Street Bridge in Missoula (Site #A-037). This data indicates traffic counts collected in October are 105% of the AADT (Average Annual Daily Traffic) volume in this area and traffic data from April is 103% of the AADT. These factors were not applied to the raw traffic data to provide a slightly more conservative result from the traffic analysis.

Historic Traffic Data

Abelin Traffic Services obtained historic traffic data for the surrounding road network from the Montana DOT. This data is presented in **Table 1**. The traffic data history shows that traffic volumes on this section of North Reserve Street and Grant Creek Road have not increased significantly in the last ten years. Therefore, no background traffic volume growth rates were used for the short-turn traffic projections for this analysis.

Level of Service

Using the data collected for this project, ATS conducted a Level of Service (LOS) analysis at the study intersections. This evaluation was conducted in accordance with the procedures outlined in the Transportation Research Board's *Highway Capacity Manual (HCM) - Special Report 209* and the Synchro 10 traffic simulation software. The base file used for the Synchro 10 model was produced by MDT in 2018 for the entire Reserve Street Corridor from Interstate 90 to Brooks Street. This model was modified to include the study intersections on Grant Creek Road. Intersections are graded from A to F representing the average delay that a vehicle entering an intersection can expect. Typically, a LOS of C or better is considered acceptable for peak-hour conditions.

Area Crash Data

ATS requested crash data from the MDT vehicle crash database for the section of Grant Creek Road from the I-90 interchange to Stonebridge Road. The data included all reported crashes which occur on this segment of road over the past ten years. The MDT database indicated that 28 vehicle crashes occurred along this section. Most of these crashes were rear-end (6) and sideswipe collisions (7). A total of 24 of the crashes were multi-vehicle collisions and most occurred on dry roadways and in daylight conditions. Seven injury collisions were reported. These types and numbers of crashes are typical for urban roadway segments. No specific crash trends or crash locations were identified.

Table 1 – Historic Traffic Data

Location	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Grant Creek Rd 0.5 Mi. N of I-90 Intch. #32-3A-137	1,390	1,470	1,250	1,240	1,170	1,190	1,220	1,240	1,230	1,248
Grant Creek Rd N of I-90 Intch. #32-3A-136	3,930	5,600	5,580	5,530	5,020	5,110	5,240	2,762	2,740	2,781
Reserve S of I-90 Intch. #32-3A-006	21,650	22,360	20,600	19,820	20,990	19,590	20,330	21,146	20,808	20,532
I-90 WB Off-ramp at Reserve #32-3-074	--	--	--	--	4720	5,150	5,150	5,538	5,449	5,525

Table 2 – Existing Level of Service Summary

Grant Creek Road (Reserve Street) Intersection	AM Peak Hour		PM Peak Hour	
	Delay (Sec.)	LOS	Delay (Sec.)	LOS
Stonebridge Road*	10.4	B	9.7	A
Expo Parkway*	10.5/13.3	B/B	10.6/14.3	B/B
I-90 Westbound Ramps	50.1	D	33.6	C
I-90 Eastbound Ramps	13.5	B	19.7	B

*Eastbound/Westbound LOS & Delay.

Table 2 shows the existing 2019 LOS at the study intersections. The analysis shows that the intersection of Reserve Street with the I-90 westbound ramps is currently experiencing delay (LOS D) during the morning peak traffic periods. This condition was observed during the field study with significant cuing in the southbound direction on Grant Creek Road at the intersection. The other intersections within the study area are operating with minimal delay. The LOS calculations are included in **Appendix C**.

D. PROPOSED DEVELOPMENT

The development to be constructed on this site includes 44 acres of land located north of Expo Parkway which would be developed into a residential apartment complex. The total developable area of the property is 28.5 acres. Access to the Grant Creek Apartments would be provided through new connections to Expo Parkway and Stonebridge Road. The project would be constructed in several phases over the next 5-10 years. Phase A1 would include 112 apartment units, a clubhouse, and a gym for residents. Phase A1 is planned for construction in 2020. Phase 1B would include 156 units and would be constructed in 2021. The remaining potential 682 units would be constructed over the next 5-10 years depending on market demand. At full buildout the property could include 950 residential dwelling units. The Grant Creek Village development plan is shown in **Figure 2**.

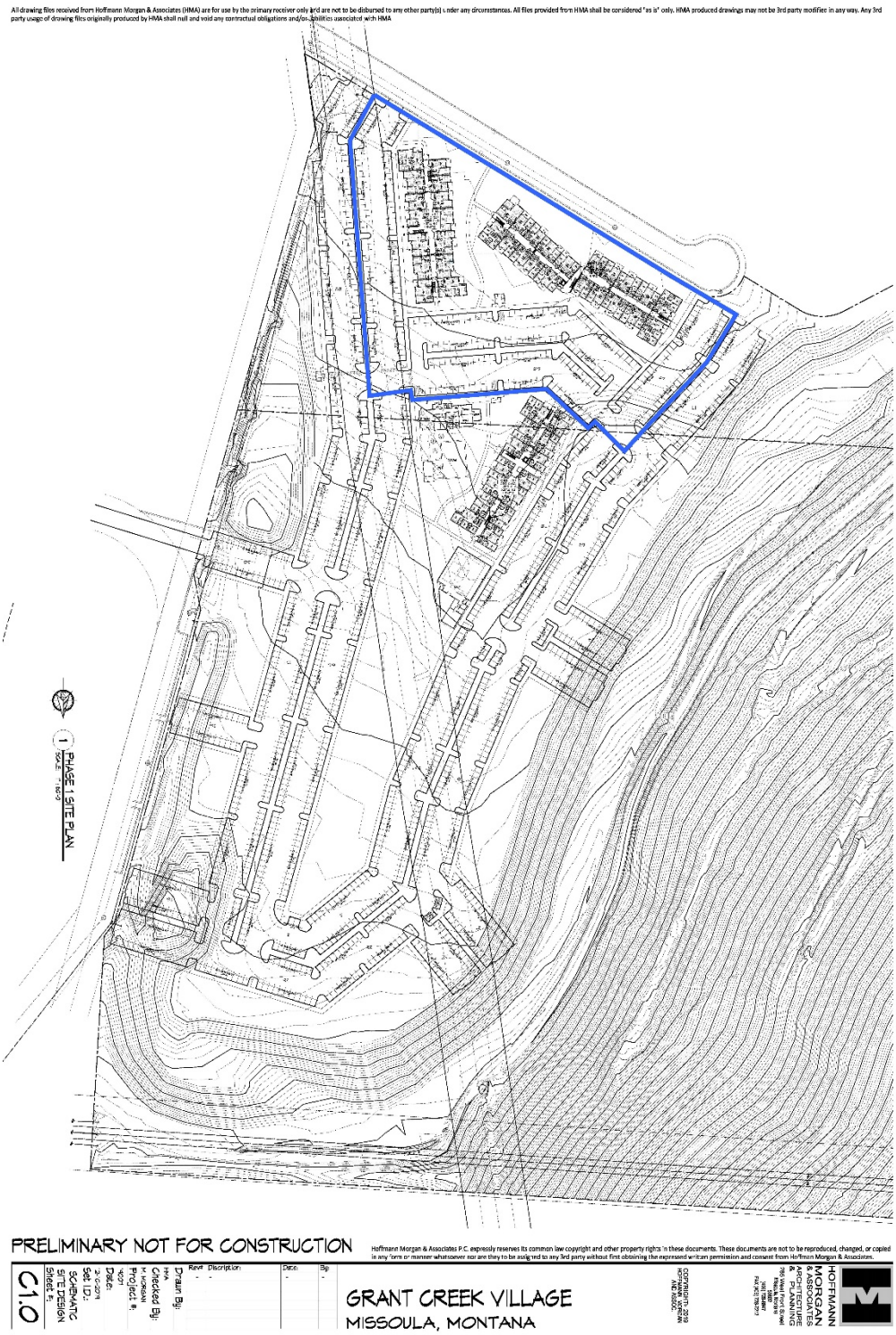
E. TRIP GENERATION AND ASSIGNMENT

ATS performed a trip generation analysis to determine the anticipated future traffic volumes from the proposed developments using the trip generation rates contained in *Trip Generation* (Institute of Transportation Engineers, Tenth Edition). These rates are the national standard and are based on the most current information available to planners. A vehicle "trip" is defined as any trip that either begins or ends at the development site. ATS determined that the critical traffic impacts on the intersections and roadways would occur during the weekday morning and evening peak hours. According to the ITE trip generation rates, Phase 1A of the development would produce 609 daily trip and Phase 1B would produce 849 daily trips. At full build-out the overall development could produce 342 AM peak hour trips, 418 PM peak hour trips, and 5,168 daily trips. See **Table 3** for detailed trip generation information.

Table 3 - Trip Generation Rates

Land Use ITE #211	Units	AM Peak Hour Trip Ends per Unit	Total AM Peak Hour Trip Ends	PM Peak Hour Trip Ends per Unit	Total PM Peak Hour Trip Ends	Weekday Trip Ends per Unit	Total Weekday Trip Ends
Phase 1A Apartments	112	0.36	40	0.44	49	5.44	**609**
Phase 1B Apartments	156	0.36	56	0.44	69	5.44	**849**
Future Phase Apartments	682	0.36	246	0.44	300	5.44	**3,710**
TOTAL	**950**		**342**		**418**		**5,168**

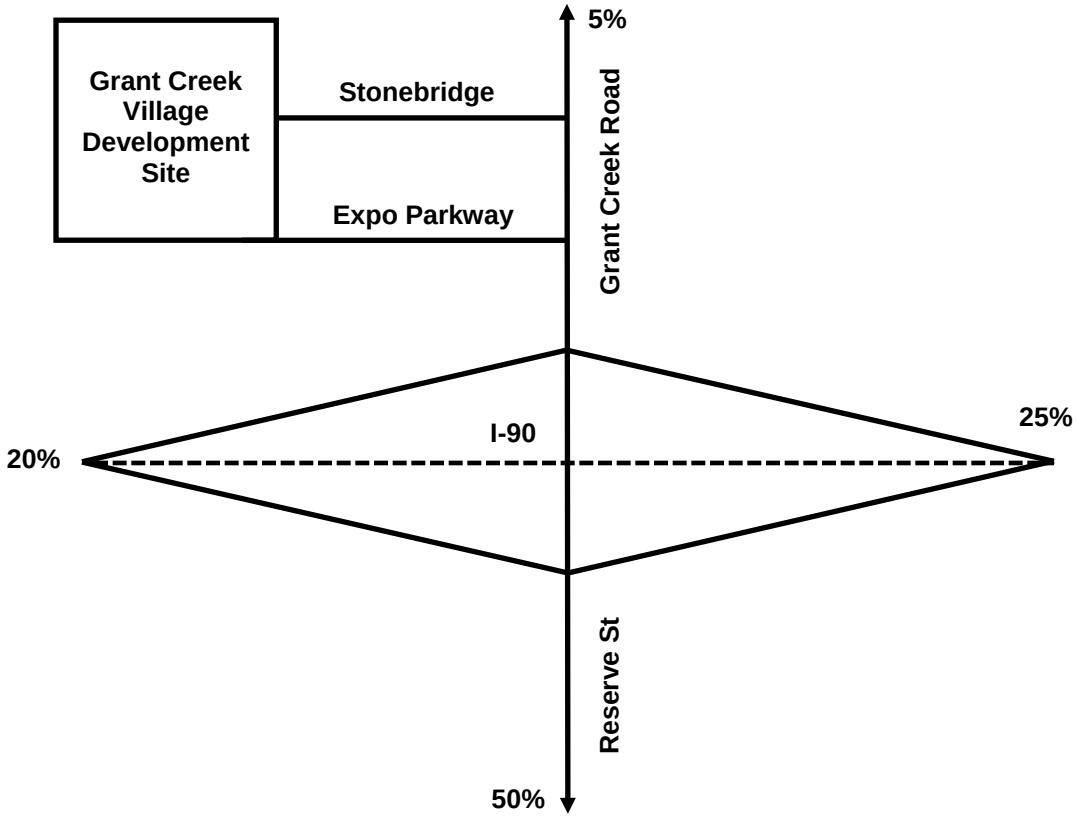
Figure 2 – Proposed Grant Creek Village Development



F. TRIP DISTRIBUTION

The traffic distribution and assignment for the proposed subdivision was based upon the existing ADT volumes along the adjacent roadways and peak-hour traffic volumes. Drivers are expected to distribute onto the surrounding road network as shown on **Figure 3**.

Figure 3 – Peak-Hour Trip Distribution



G. TRAFFIC IMPACTS OUTSIDE OF THE DEVELOPMENT

Using the trip generation and trip distribution rates, ATS determined the future Level of Service for the area intersections for Phases, 1A, 1B and full-buildout of the development. The anticipated intersection LOS with the proposed development is shown in **Tables 4-6**. The LOS calculations are included in **Appendix C** of this report. The tables indicate that the construction of Phase 1A of the Grant Creek Village will not cause any new roadway capacity problems in this area and the total vehicle delay will increase only slightly at the study intersections. By Phase 1B, the total vehicle delay at the intersection of the I-90 westbound ramps will increase and the LOS will fall to E during the AM peak hour. Traffic mitigation measures may become necessary at this time to

ensure efficient future traffic operations at this intersections. The recommended mitigation measure to correct this issues includes the installation of an additional through lane on Grant Creek Road for southbound traffic at the intersection (approximately 250 feet). There are currently two receiving lanes south of the intersection to accept separate through lanes from the north. This improvement would allow the intersection to function at LOS C and D at the end of Phase 1B with less vehicle delay than the current 2019 operations.

By full buildout of the Grant Creek Village project, the new southbound thru lane will be essential for intersection operations to prevent excessive cueing on Grant Creek Road. The traffic analysis also suggests the eastern approach onto Grant Creek Road at Expo Parkway may experience LOS D conditions by full-buildout of the project. However, the future operations at this intersection will largely be controlled by the potential commercial development plans along this section of Grant Creek Road through 2030.

The Grant Creek Village project would increase traffic volumes by 600 VPD (18%) on Grant Creek Road in Phase 1A and by 850 VPD (35% cumulative) by Phase 1B. Ultimately the development may increase traffic volumes on North Reserve Street by 1,900 VPD (9%) at full buildout of the project.

Table 4 – Level of Service Summary with Grant Creek Village Phase 1A

Grant Creek Road (Reserve Street) Intersection	AM Peak Hour		PM Peak Hour	
	Delay (Sec.)	LOS	Delay (Sec.)	LOS
Stonebridge Road*	10.4	B	9.7	A
Expo Parkway*	10.8/14.7	B/B	10.6/15.3	B/B
I-90 Westbound Ramps	54.7	D	34.4	C
I-90 Eastbound Ramps	13.6	B	20.6	C

*Eastbound/Westbound LOS & Delay.

Table 5 – Level of Service Summary with Grant Creek Village Phase 1B

Grant Creek Road (Reserve Street) Intersection	AM Peak Hour		PM Peak Hour	
	Delay (Sec.)	LOS	Delay (Sec.)	LOS
Stonebridge Road*	10.5	B	9.8	A
Expo Parkway*	11.1/15.7	B/B	10.9/17.1	B/C
I-90 Westbound Ramps	62.7	E	35.2	D
I-90 Eastbound Ramps	13.9	B	21.7	C

*Eastbound/Westbound LOS & Delay.

Table 6 – Level of Service Summary with Grant Creek Village Full-Build

Grant Creek Road (Reserve Street) Intersection	AM Peak Hour		PM Peak Hour	
	Delay (Sec.)	LOS	Delay (Sec.)	LOS
Stonebridge Road*	11.3	B	10.3	B
Expo Parkway*	13.8/24.8	B/C	13.0/29.8	B/D
I-90 Westbound Ramps	126	F	42.3	D
I-90 Eastbound Ramps	14.6	B	26.2	C

*Eastbound/Westbound LOS & Delay.

H. IMPACT SUMMARY & RECOMMENDATIONS

As proposed, the Grant Creek Village would not create any new roadway capacity problems in this area. However, the additional traffic from the project will contribute to existing operational issues at the I-90 westbound ramp signalized intersection, which would benefit from roadway modifications. It is recommended that a new southbound through lane be installed at this intersection to prevent excessive vehicle cueing on the north leg of the intersection by Phase 1B of the project. Overall, the Grant Creek Village will account for an 18% and 35% percent increase in traffic volumes on Grant Creek Road with Phases 1A and 1B.

APPENDIX A

Traffic Data

Abelin Traffic Services

130 S. Howie Street
Helena, MT 59601

File Name : StoneBridge
Site Code : 00000000
Start Date : 10/23/2019
Page No : 1

Groups Printed- Class 1

	Grant Creek Southbound					Stonebridge Westbound					Grant Creek Northbound					Stonebridge Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	0	91	0	0	91	0	0	0	0	0	0	20	5	0	25	6	0	0	0	6	122
07:45 AM	0	71	0	0	71	0	0	0	0	0	0	45	22	0	67	11	0	0	0	11	149
Total	0	162	0	0	162	0	0	0	0	0	0	65	27	0	92	17	0	0	0	17	271
08:00 AM	0	77	0	0	77	0	0	0	0	0	0	25	12	0	37	10	0	0	0	10	124
*** BREAK ***																					
Total	0	77	0	0	77	0	0	0	0	0	0	25	12	0	37	10	0	0	0	10	124
*** BREAK ***																					
04:30 PM	0	43	0	0	43	0	0	0	0	0	0	55	2	0	57	7	0	1	0	8	108
04:45 PM	0	66	0	0	66	0	0	0	0	0	0	39	5	0	44	33	0	0	0	33	143
Total	0	109	0	0	109	0	0	0	0	0	0	94	7	0	101	40	0	1	0	41	251
05:00 PM	0	46	0	0	46	0	0	0	0	0	0	70	3	0	73	10	0	1	0	11	130
05:15 PM	0	45	0	0	45	0	0	0	0	0	0	80	7	0	87	12	0	0	0	12	144
Grand Total	0	439	0	0	439	0	0	0	0	0	0	334	56	0	390	89	0	2	0	91	920
Apprch %	0	100	0	0		0	0	0	0		0	85.6	14.4	0		97.8	0	2.2	0		
Total %	0	47.7	0	0	47.7	0	0	0	0	0	0	36.3	6.1	0	42.4	9.7	0	0.2	0	9.9	

Abelin Traffic Services

130 S. Howie Street
Helena, MT 59601

File Name : Not Named 1
Site Code : 00000000
Start Date : 10/23/2019
Page No : 1

Groups Printed- Class 1 - New Group

	Grant Creek Southbound					Expo Westbound					Grant Creek Northbound					Expo Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:30 AM	0	89	2	0	91	3	0	7	0	10	1	17	7	0	25	16	0	0	0	16	142
07:45 AM	0	69	2	0	71	2	0	7	0	9	0	43	7	0	50	15	0	0	0	15	145
Total	0	158	4	0	162	5	0	14	0	19	1	60	14	0	75	31	0	0	0	31	287
08:00 AM	0	75	2	0	77	0	0	5	0	5	0	25	5	0	30	5	0	0	0	5	117
*** BREAK ***																					
Total	0	75	2	0	77	0	0	5	0	5	0	25	5	0	30	5	0	0	0	5	117
*** BREAK ***																					
04:30 PM	0	41	2	0	43	4	1	1	0	6	0	51	11	0	62	10	0	0	0	10	121
04:45 PM	0	62	4	0	66	6	0	9	0	15	1	33	18	0	52	5	0	0	1	6	139
Total	0	103	6	0	109	10	1	10	0	21	1	84	29	0	114	15	0	0	1	16	260
05:00 PM	0	44	2	0	46	2	0	10	0	12	0	68	14	0	82	9	4	0	1	14	154
05:15 PM	0	43	2	0	45	3	0	2	0	5	0	77	19	0	96	12	0	0	0	12	158
Grand Total	0	423	16	0	439	20	1	41	0	62	2	314	81	0	397	72	4	0	2	78	976
Apprch %	0	96.4	3.6	0		32.3	1.6	66.1	0		0.5	79.1	20.4	0		92.3	5.1	0	2.6		
Total %	0	43.3	1.6	0	45	2	0.1	4.2	0	6.4	0.2	32.2	8.3	0	40.7	7.4	0.4	0	0.2	8	
Class 1	0	419	16	0	435	18	1	41	0	60	1	313	80	0	394	71	4	0	2	77	966
% Class 1	0	99.1	100	0	99.1	90	100	100	0	96.8	50	99.7	98.8	0	99.2	98.6	100	0	100	98.7	99
New Group % New Group	0	0.9	0	0	0.9	10	0	0	0	3.2	50	0.3	1.2	0	0.8	1.4	0	0	0	1.3	1

Basic Volume Report: EXPO

Station ID : EXPO
Info Line 1 : ATS
Info Line 2 : Unicorn #3
GPS Lat/Lon :
DB File : EXPO.DB

Last Connected Device Type : Unic-L
Version Number : 1.41
Serial Number :

Number of Lanes : 1
Posted Speed Limit : 0.0 mph

Lane #3 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.		E/W	Normal	Axle	Yes	

Lane #3 Basic Volume Data From: 15:00 - 10/23/2019 To: 14:59 - 10/24/2019

Date	DW	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Total
102319	W																65	106	99	105	71	60	35	21	7	569
102419	T	4	3	3	3	9	13	53	75	106	69	77	117	105	133	85										855
Month Total :		4	3	3	3	9	13	53	75	106	69	77	117	105	133	85	65	106	99	105	71	60	35	21	7	1424
Percent :		0%	0%	0%	0%	1%	1%	4%	5%	7%	5%	5%	8%	7%	9%	6%	5%	7%	7%	7%	5%	4%	2%	1%	0%	
ADT :		4	3	3	3	9	13	53	75	106	69	77	117	105	133	85	65	106	99	105	71	60	35	21	7	1424

	Sun	Mon	Tue	Wed	Thu	Fri	Sat
DW Totals :	0	0	0	569	855	0	0
# Days :	0.0	0.0	0.0	0.4	0.6	0.0	0.0
ADT :	0	0	0	1517	1368	0	0
Percent :	0%	0%	0%	40%	60%	0%	0%

	Total	Percent
Weekday (Mon-Fri) :	1424	100%
ADT :	1424	
Weekend (Sat-Sun) :	0	0%
ADT :	0	

Basic Volume Report: STONEB

Station ID : STONEB
Info Line 1 : ATS
Info Line 2 : Unicorn # 2
GPS Lat/Lon :
DB File : STONEB.DB

Last Connected Device Type : Unic-L
Version Number : 1.41
Serial Number : 91434

Number of Lanes : 1
Posted Speed Limit : 0.0 mph

Lane #3 Configuration

#	Dir.	Information	Volume Mode	Volume Sensors	Divide By 2	Comment
3.		WB	Normal	Axle	Yes	

Lane #3 Basic Volume Data From: 15:00 - 10/23/2019 To: 14:59 - 10/24/2019

Date	DW	0000	0100	0200	0300	0400	0500	0600	0700	0800	0900	1000	1100	1200	1300	1400	1500	1600	1700	1800	1900	2000	2100	2200	2300	Total
102319	W																65	56	84	45	24	22	11	7	8	322
102419	T	7	1	2	4	1	0	11	66	68	40	36	61	62	58	53										470
Month Total :		7	1	2	4	1	0	11	66	68	40	36	61	62	58	53	65	56	84	45	24	22	11	7	8	792
Percent :		1%	0%	0%	1%	0%	0%	1%	8%	9%	5%	5%	8%	8%	7%	7%	8%	7%	11%	6%	3%	3%	1%	1%	1%	
ADT :		7	1	2	4	1	0	11	66	68	40	36	61	62	58	53	65	56	84	45	24	22	11	7	8	792

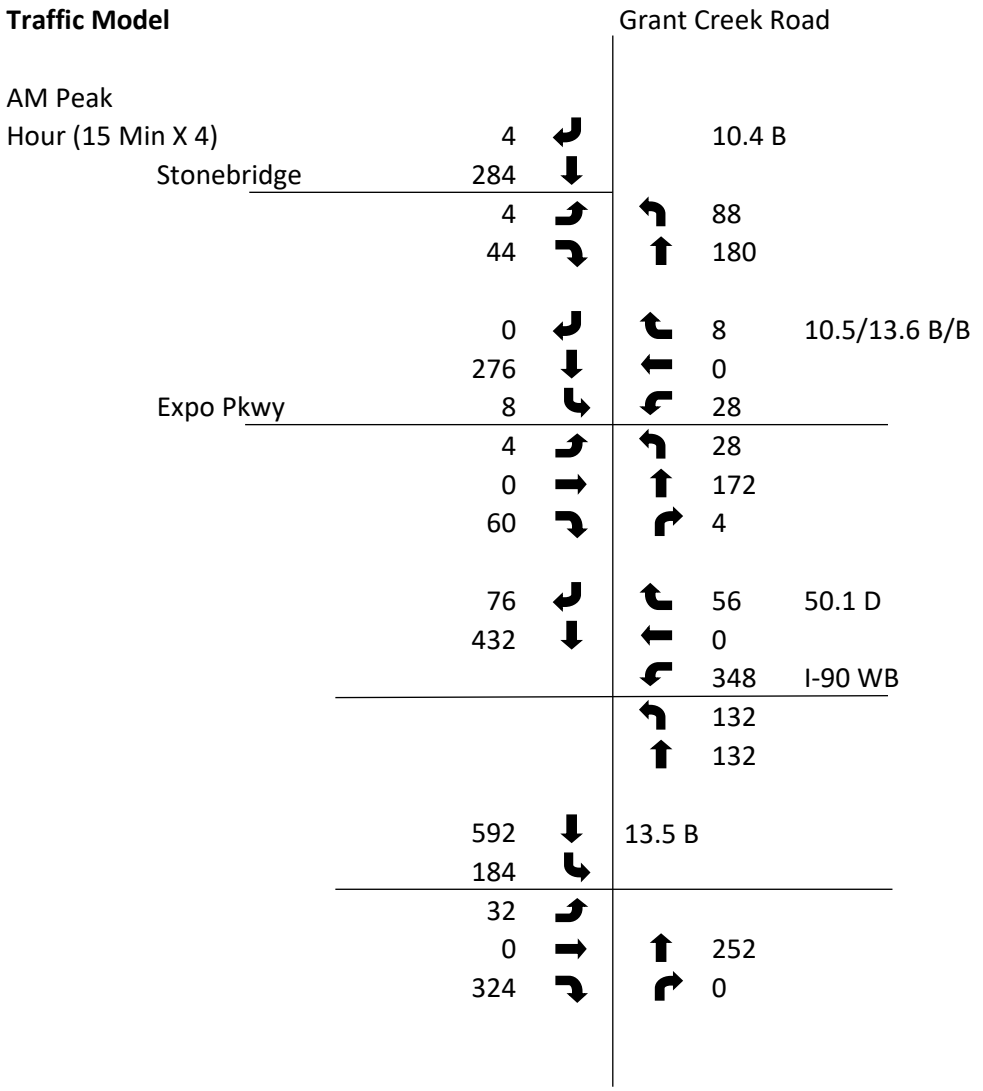
	Sun	Mon	Tue	Wed	Thu	Fri	Sat
DW Totals :	0	0	0	322	470	0	0
# Days :	0.0	0.0	0.0	0.4	0.6	0.0	0.0
ADT :	0	0	0	859	752	0	0
Percent :	0%	0%	0%	41%	59%	0%	0%

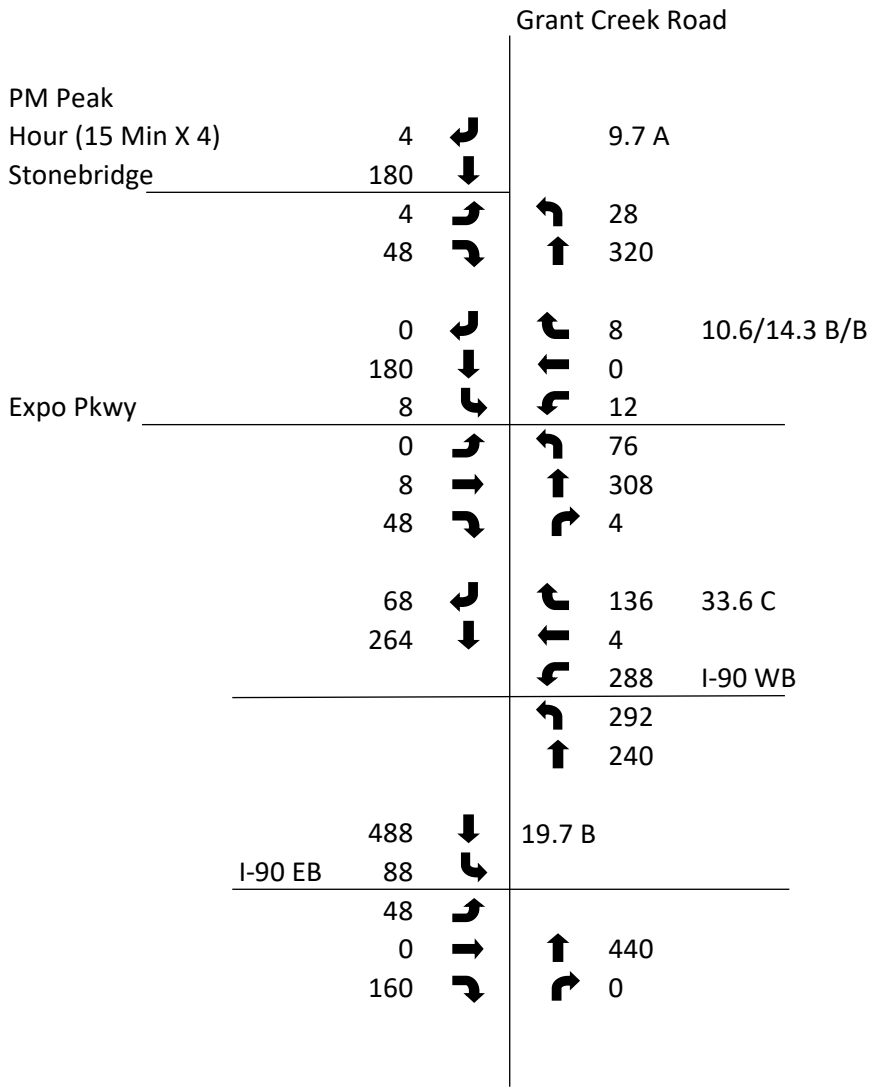
	Total	Percent
Weekday (Mon-Fri) :	792	100%
ADT :	792	
Weekend (Sat-Sun) :	0	0%
ADT :	0	

APPENDIX B

Traffic Model

Grant Creek Village
Traffic Model



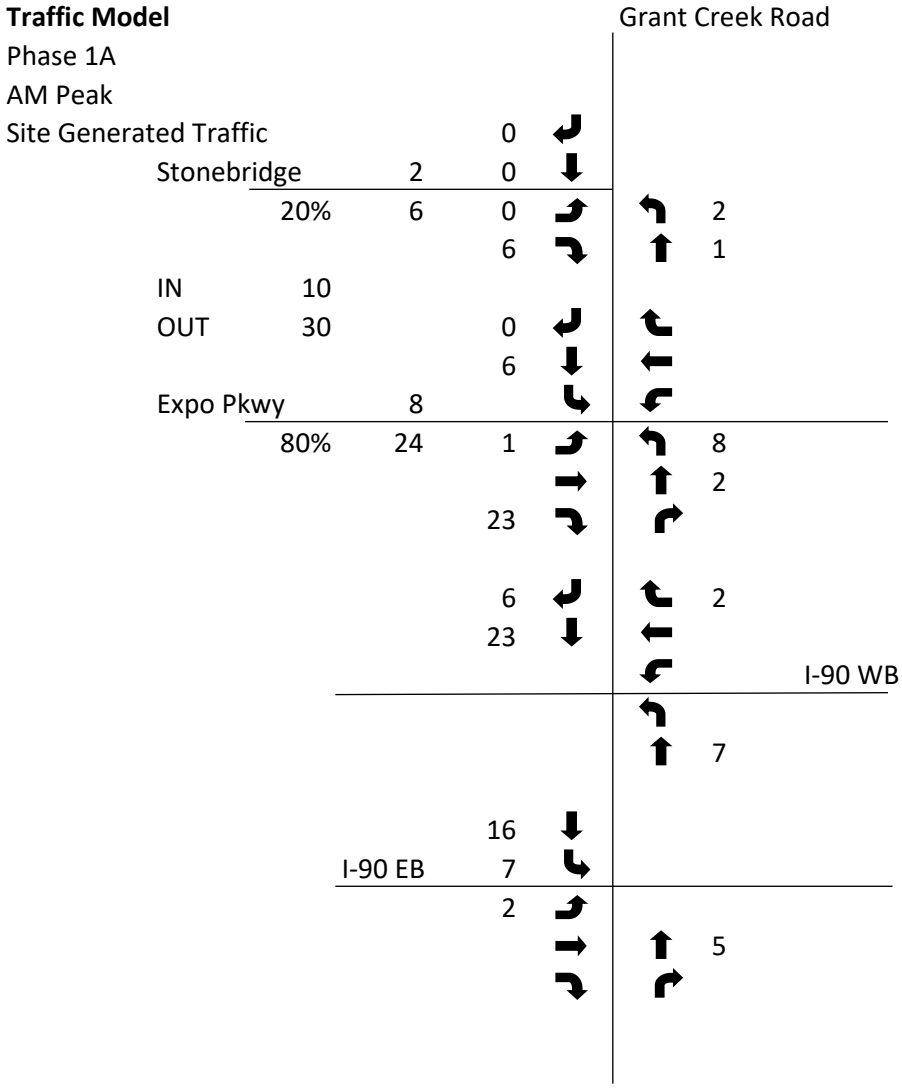


Grant Creek Village

Traffic Model

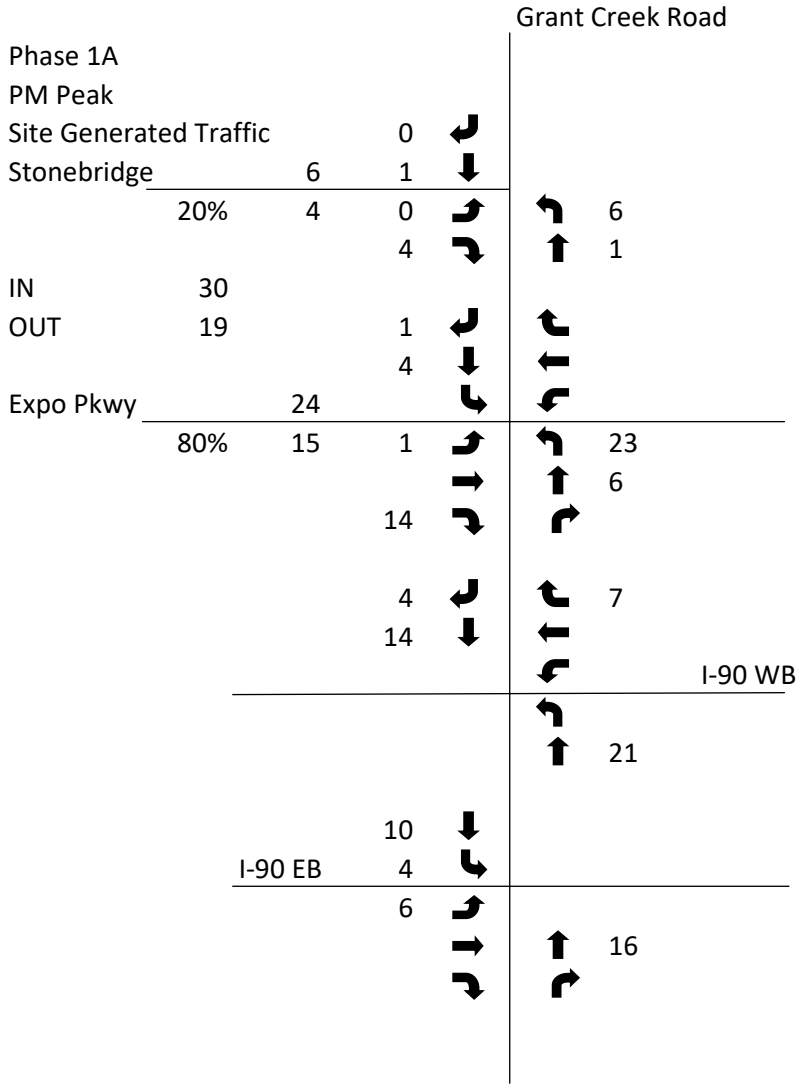
Phase 1A

AM Peak



Phase 1A

PM Peak

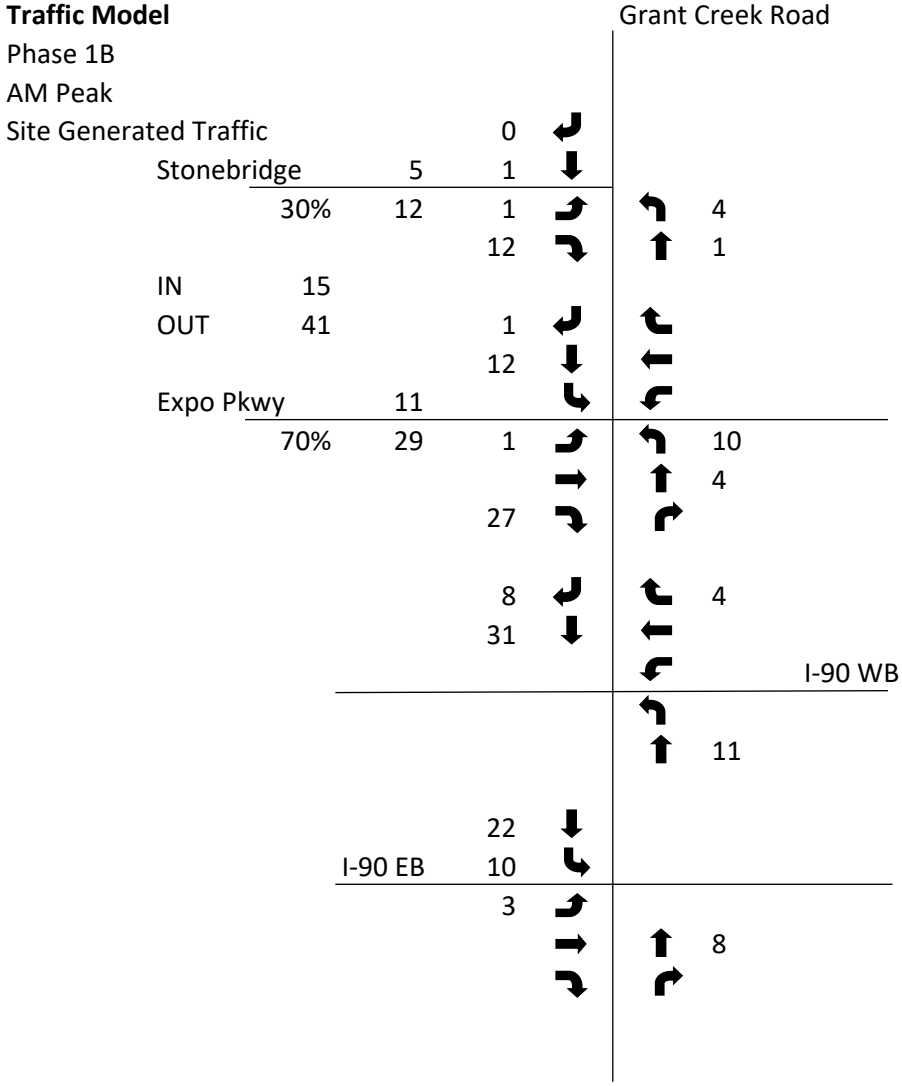


Grant Creek Village

Traffic Model

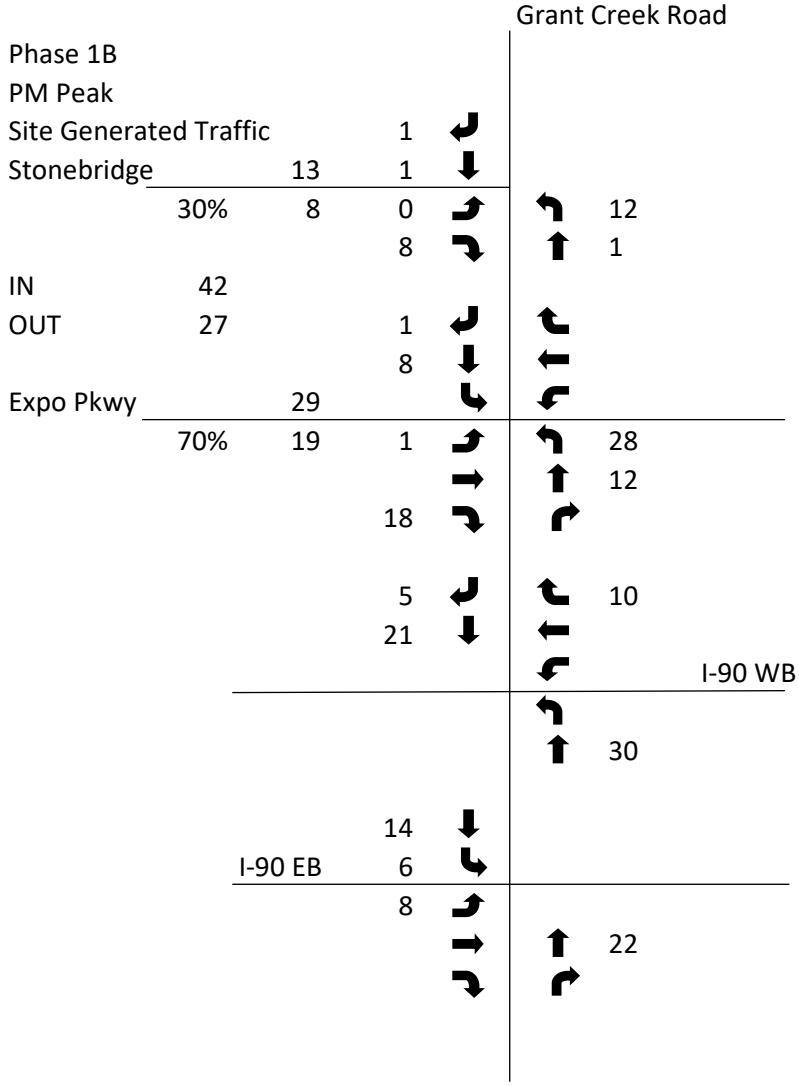
Phase 1B

AM Peak



Phase 1B

PM Peak

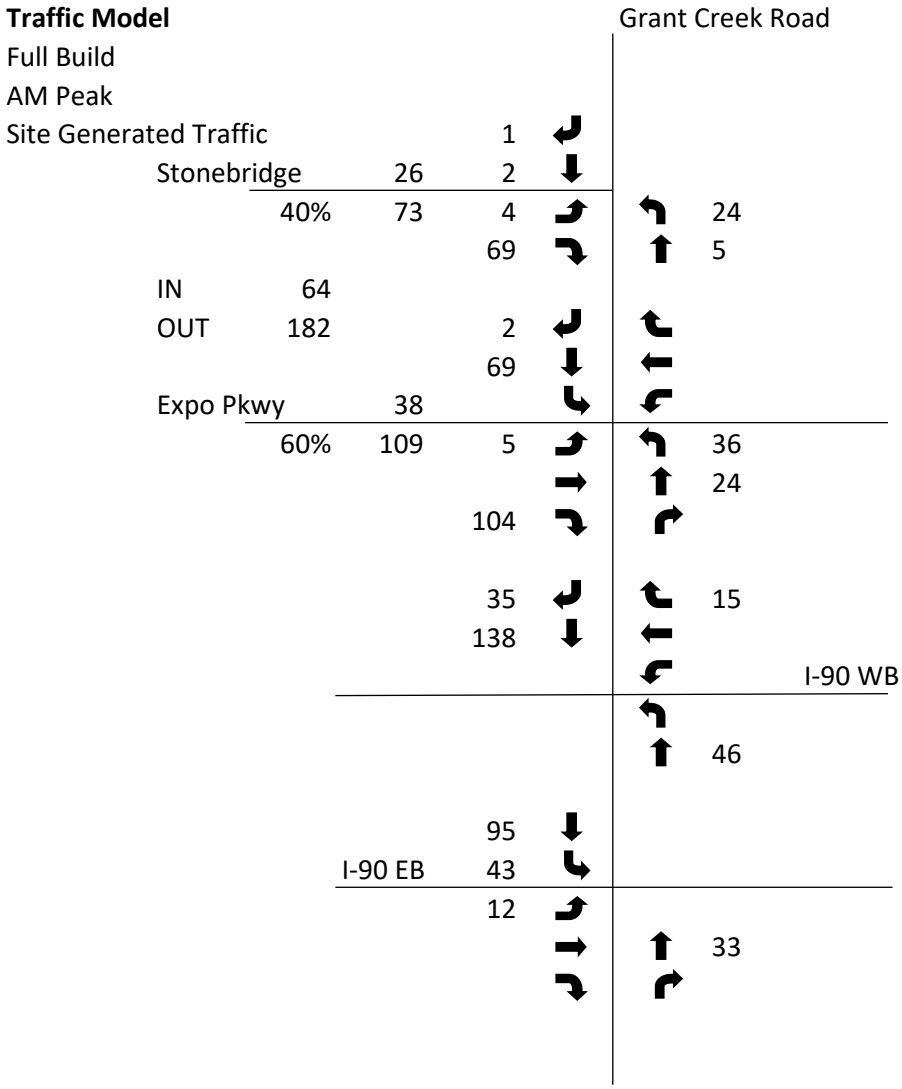


Grant Creek Village

Traffic Model

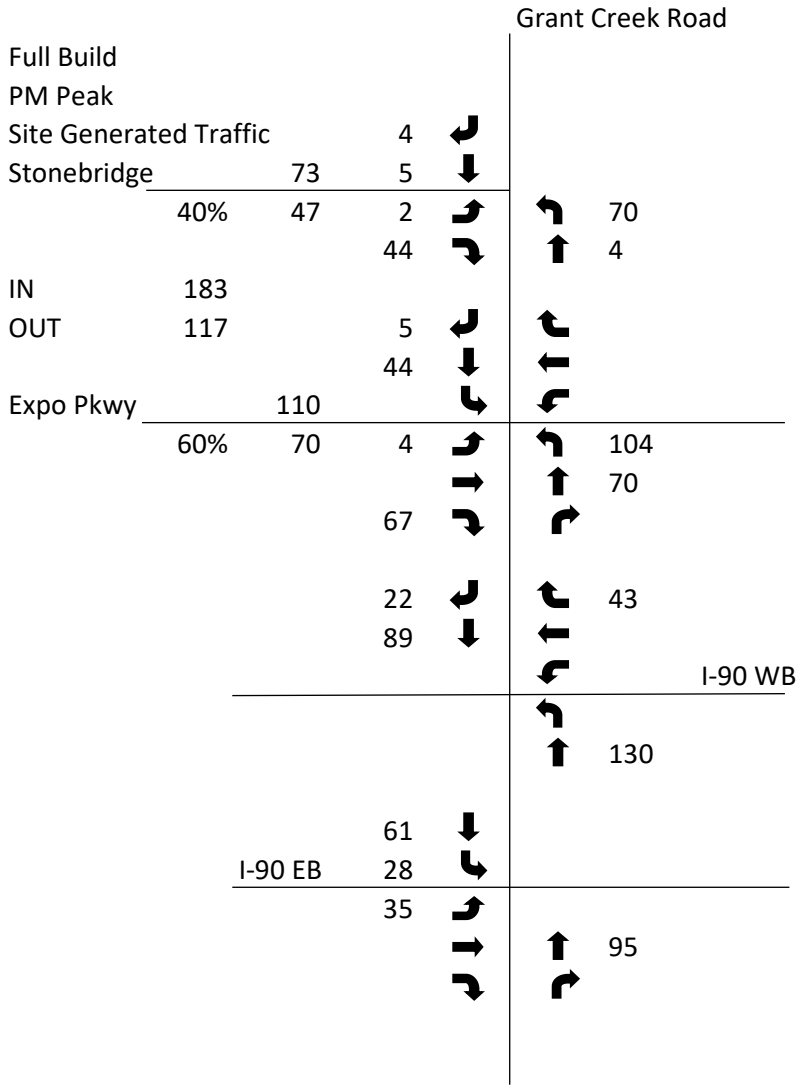
Full Build

AM Peak



Full Build

PM Peak

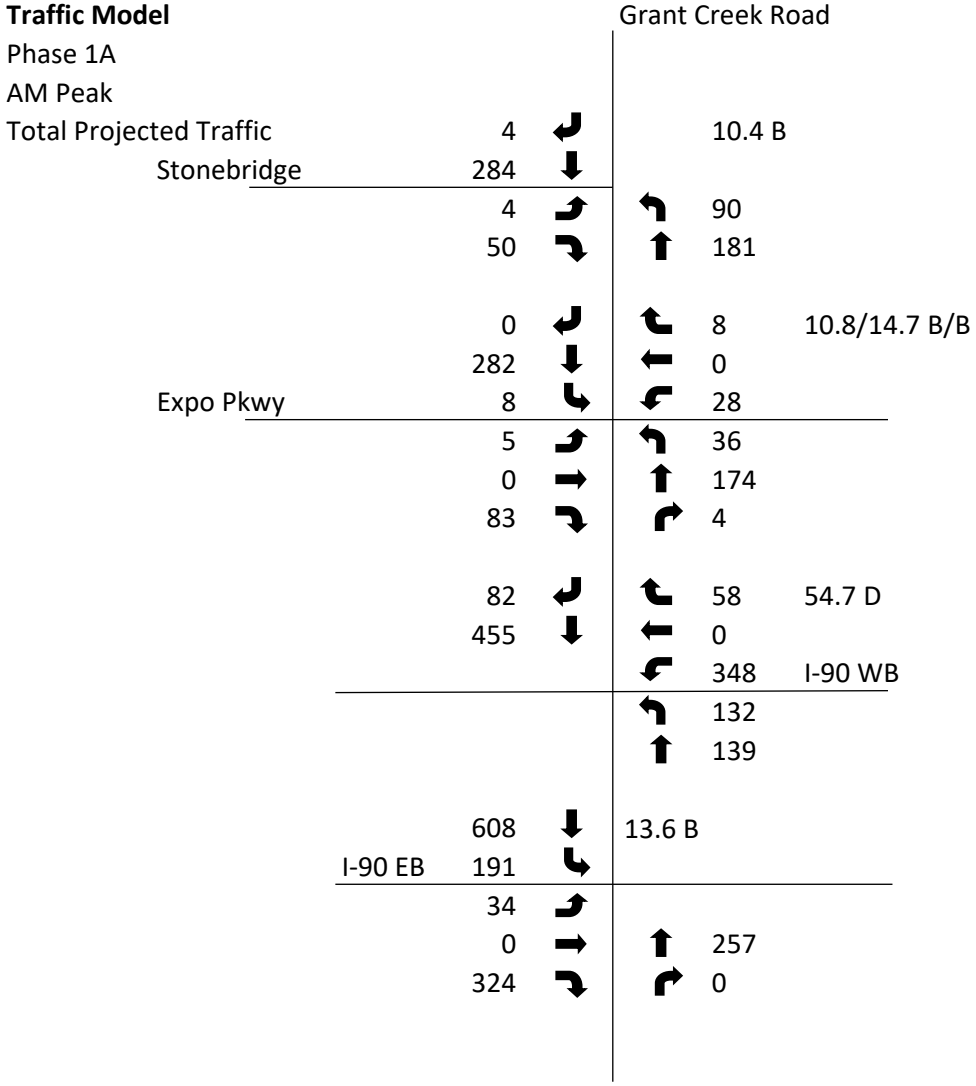


Grant Creek Village

Traffic Model

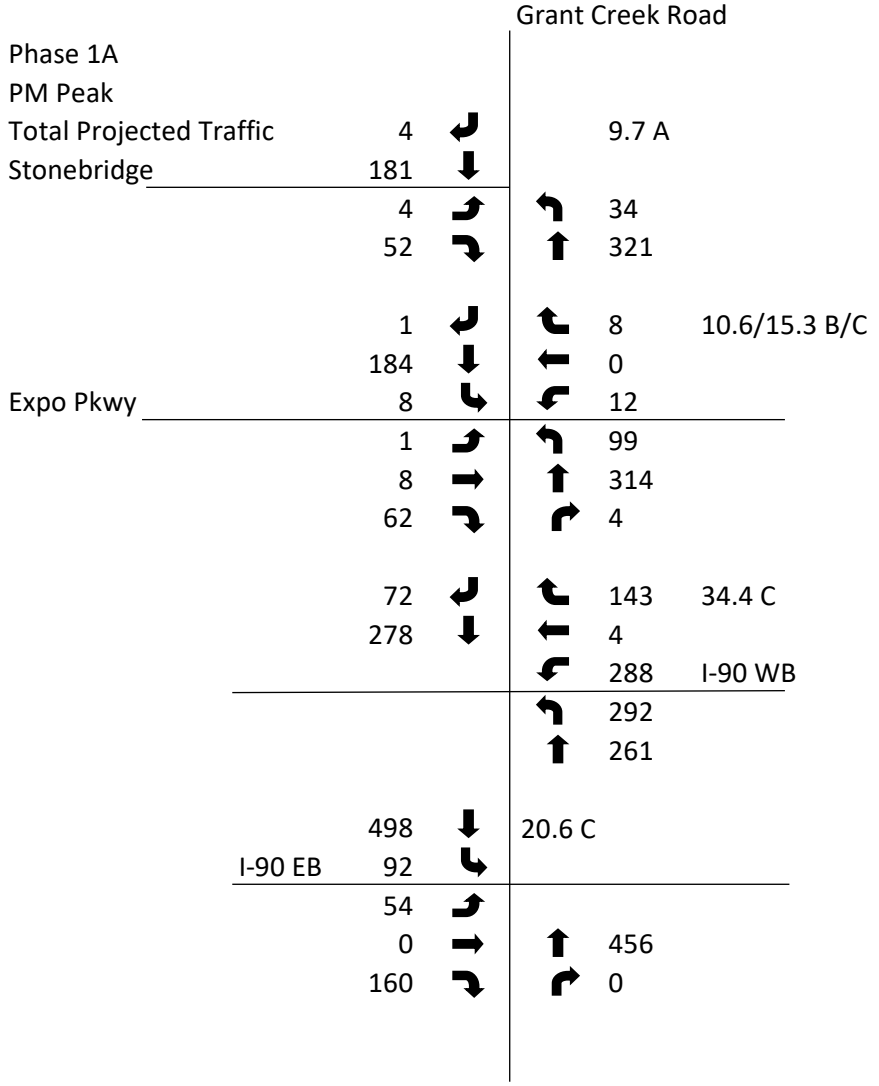
Phase 1A

AM Peak



Phase 1A

PM Peak

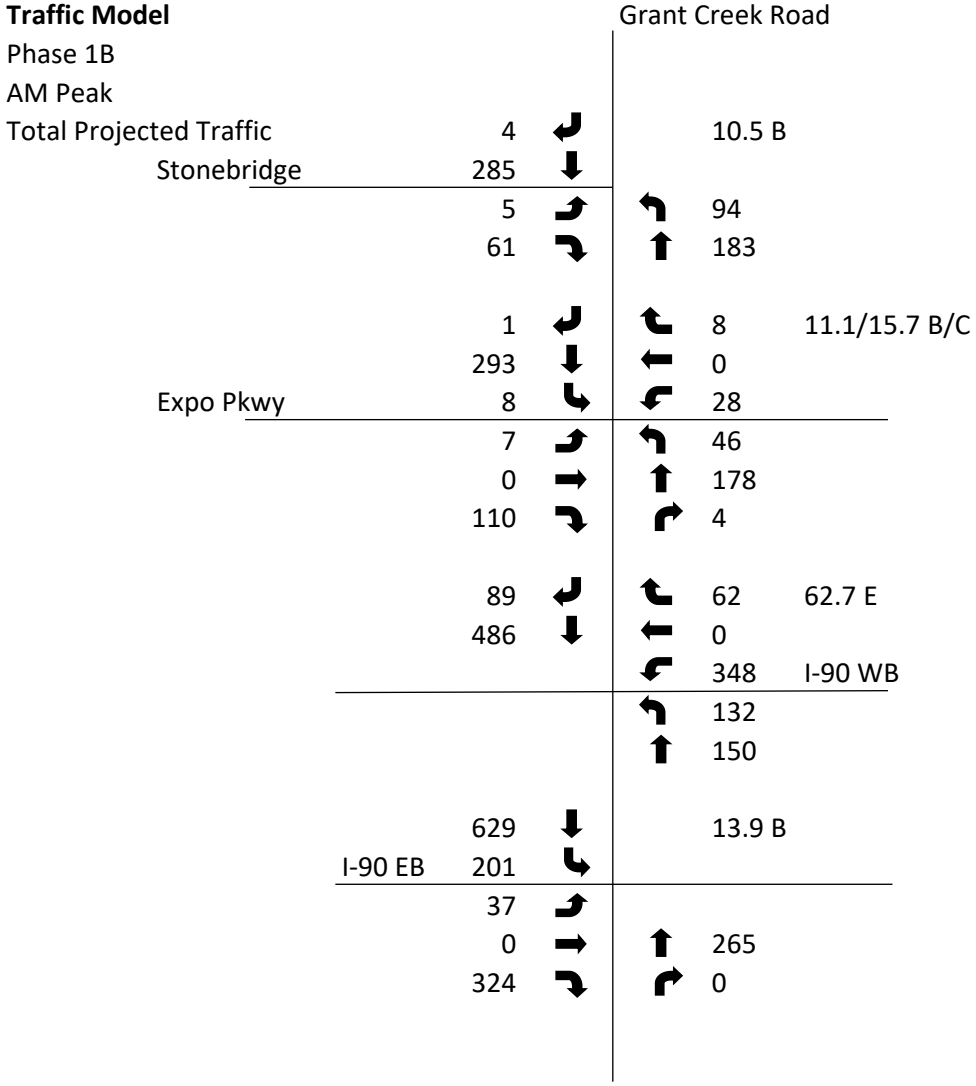


Grant Creek Village

Traffic Model

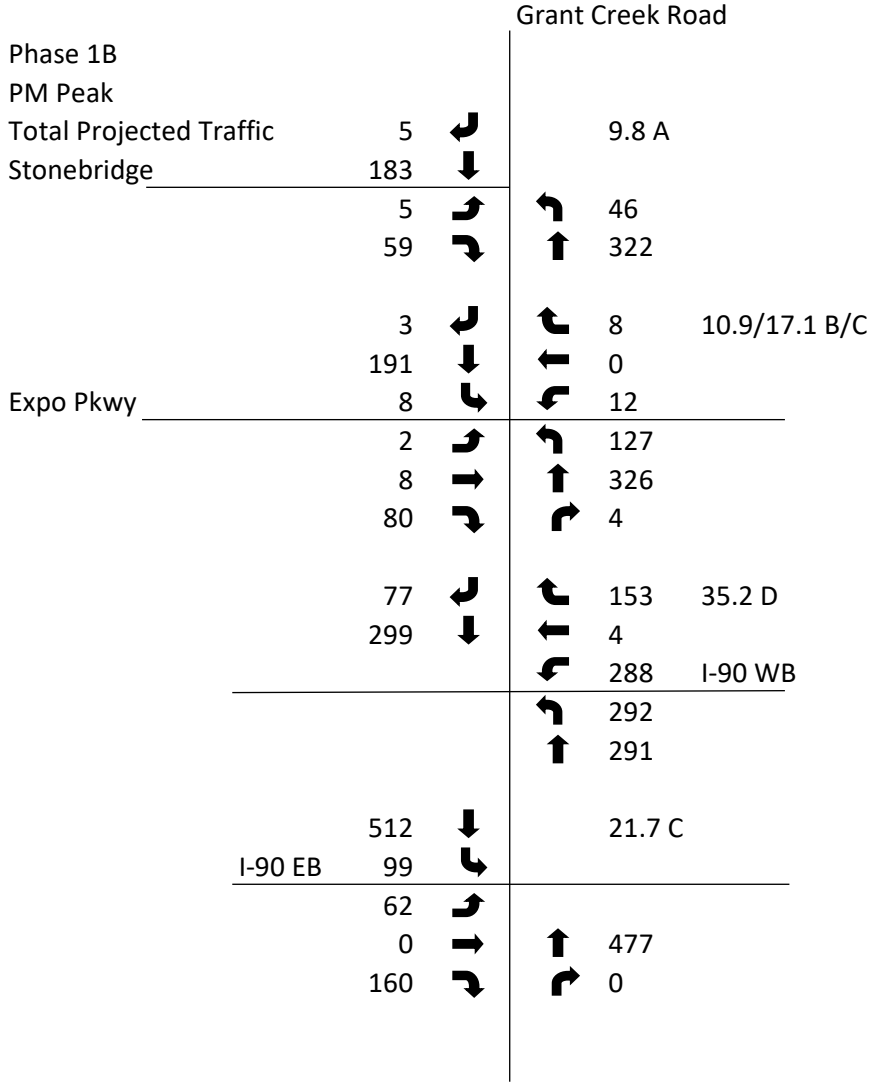
Phase 1B

AM Peak



Phase 1B

PM Peak

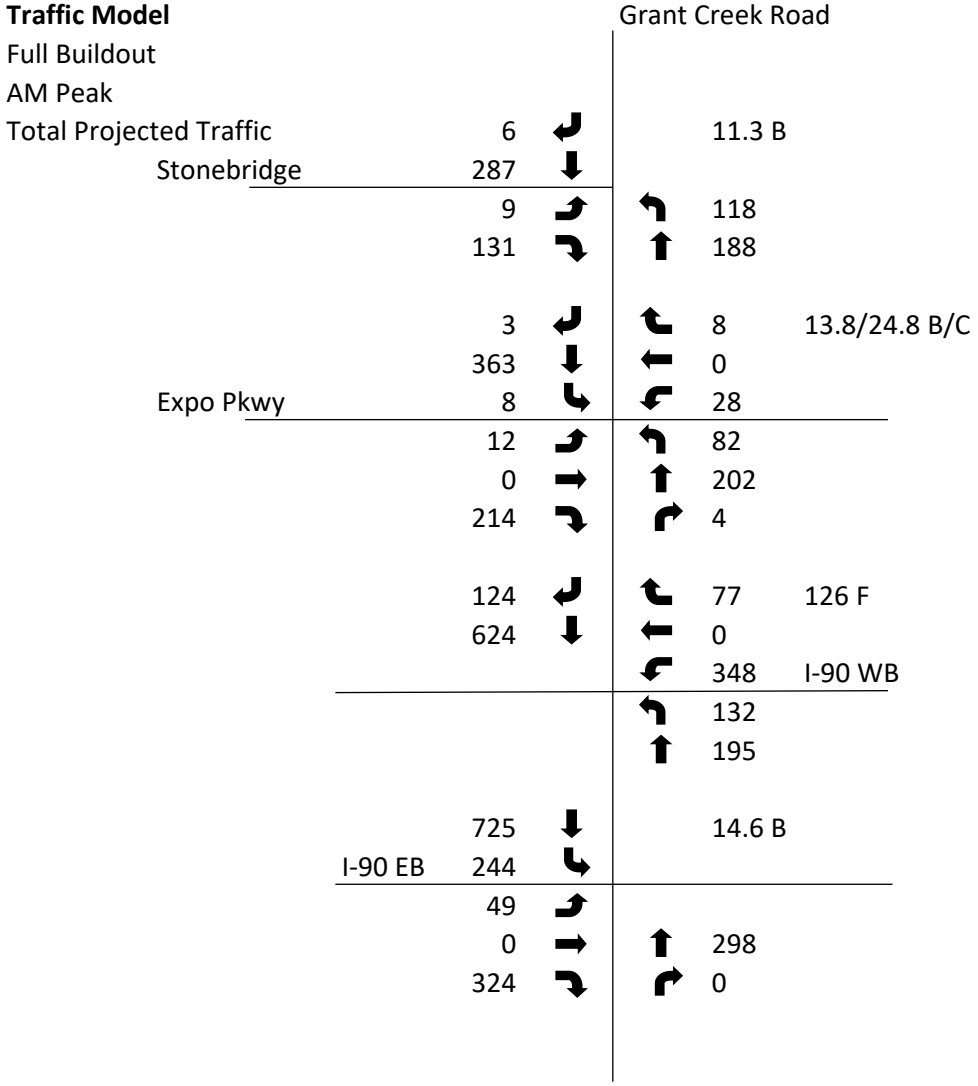


Grant Creek Village

Traffic Model

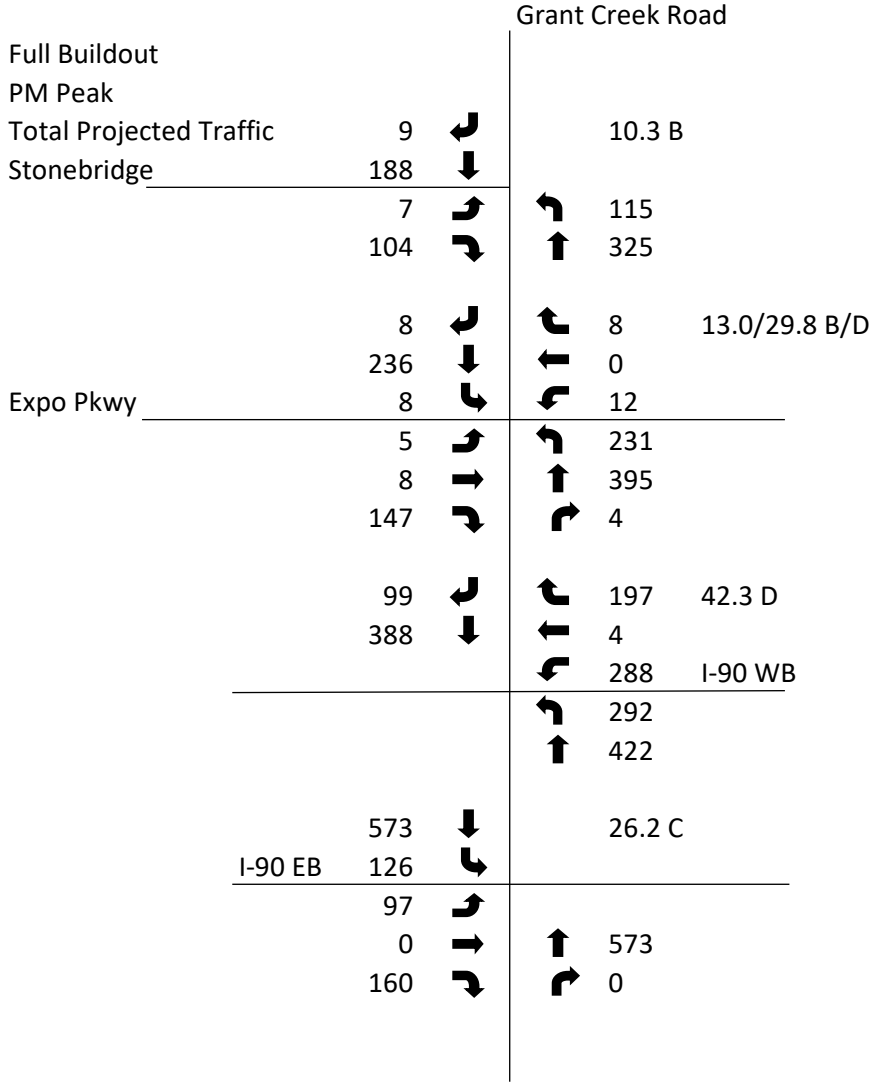
Full Buildout

AM Peak



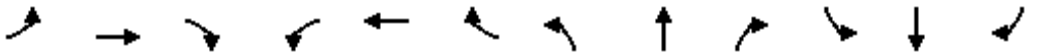
Full Buildout

PM Peak



APPENDIX C

LOS Calculations



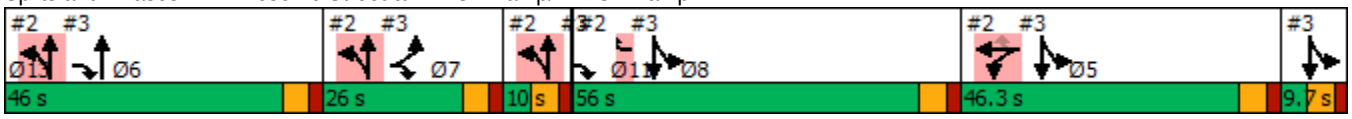
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	348	1	56	132	132	0	0	432	76
Future Volume (vph)	0	0	0	348	1	56	132	132	0	0	432	76
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.980	
Flt Protected				0.950	0.953		0.950	0.987				
Satd. Flow (prot)	0	0	0	1564	1569	1473	1476	3067	0	0	1698	0
Flt Permitted				0.950	0.953		0.950	0.987				
Satd. Flow (perm)	0	0	0	1564	1569	1473	1476	3067	0	0	1698	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118					4	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		22.0			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	348	1	56	132	132	0	0	432	76
Shared Lane Traffic (%)				50%			35%					
Lane Group Flow (vph)	0	0	0	174	175	56	86	178	0	0	508	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				27.6	27.6	84.2	46.3	46.3			50.3	
Actuated g/C Ratio				0.18	0.18	0.55	0.30	0.30			0.33	
v/c Ratio				0.61	0.62	0.06	0.19	0.19			0.90	
Control Delay				67.1	67.1	0.1	1.5	0.8			69.5	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				67.1	67.1	0.1	1.5	0.8			69.5	
LOS				E	E	A	A	A			E	
Approach Delay					57.9			1.0			69.5	
Approach LOS					E			A			E	

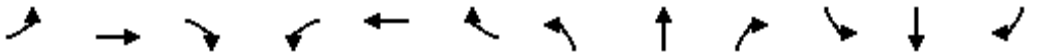
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 152.3	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 50.1	Intersection LOS: D
Intersection Capacity Utilization 50.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



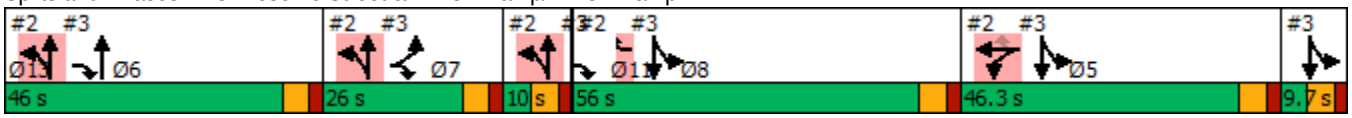
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	0	324	0	0	0	0	252	149	184	592	0
Future Volume (vph)	32	0	324	0	0	0	0	252	149	184	592	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324						187			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			33.1			12.4			6.0	
Confl. Peds. (#/hr)												6
Peak Hour 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
Adj. Flow (vph)	32	0	324	0	0	0	0	252	149	184	592	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	0	324	0	0	0	0	252	149	184	592	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7 11					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7 11					6		5 8 13	5 8 13	
Switch Phase												

Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	9.7		46.3					20.5	152.3	93.7	93.7	
Actuated g/C Ratio	0.06		0.30					0.13	1.00	0.62	0.62	
v/c Ratio	0.31		0.32					0.40	0.10	0.18	0.29	
Control Delay	78.2		4.8					64.0	0.1	0.3	0.3	
Queue Delay	0.0		0.0					0.0	0.0	0.4	0.3	
Total Delay	78.2		4.8					64.0	0.1	0.8	0.6	
LOS	E		A					E	A	A	A	
Approach Delay		11.4						40.3			0.6	
Approach LOS		B						D			A	

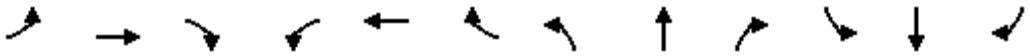
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 152.3			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 13.5		Intersection LOS: B	
Intersection Capacity Utilization 50.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



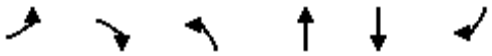
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	1	60	28	1	8	28	172	4	8	276	1
Future Volume (vph)	4	1	60	28	1	8	28	172	4	8	276	1
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.875			0.971			0.997				
Flt Protected		0.997			0.964		0.950				0.999	
Satd. Flow (prot)	0	1497	0	0	1606	0	1630	1711	0	0	1714	0
Flt Permitted		0.997			0.964		0.950				0.999	
Satd. Flow (perm)	0	1497	0	0	1606	0	1630	1711	0	0	1714	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		575			291			351			587	
Travel Time (s)		8.7			4.4			5.3			8.9	
Peak Hour 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
Adj. Flow (vph)	4	1	60	28	1	8	28	172	4	8	276	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	0	0	37	0	28	176	0	0	285	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.4%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	44	88	180	284	4
Future Volume (vph)	4	44	88	180	284	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.876				0.998	
Flt Protected	0.996			0.984		
Satd. Flow (prot)	1497	0	0	1688	1712	0
Flt Permitted	0.996			0.984		
Satd. Flow (perm)	1497	0	0	1688	1712	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	819			587	252	
Travel Time (s)	12.4			8.9	3.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	44	88	180	284	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	268	288	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.4%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	1	60	28	1	8	28	172	4	8	276	1
Future Vol, veh/h	4	1	60	28	1	8	28	172	4	8	276	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	1	60	28	1	8	28	172	4	8	276	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	528	525	277	553	523	174	277	0	0	176	0	0
Stage 1	293	293	-	230	230	-	-	-	-	-	-	-
Stage 2	235	232	-	323	293	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	461	458	762	444	459	869	1286	-	-	1400	-	-
Stage 1	715	670	-	773	714	-	-	-	-	-	-	-
Stage 2	768	713	-	689	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	446	445	762	400	446	869	1286	-	-	1400	-	-
Mov Cap-2 Maneuver	446	445	-	400	446	-	-	-	-	-	-	-
Stage 1	699	665	-	756	698	-	-	-	-	-	-	-
Stage 2	743	697	-	629	665	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.5	13.6	1.1	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1286	-	-	723	454	1400	-	-
HCM Lane V/C Ratio	0.022	-	-	0.09	0.081	0.006	-	-
HCM Control Delay (s)	7.9	-	-	10.5	13.6	7.6	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.3	0	-	-

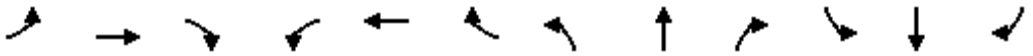
Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	44	88	180	284	4
Future Vol, veh/h	4	44	88	180	284	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	44	88	180	284	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	642	286	288	0	-	0
Stage 1	286	-	-	-	-	-
Stage 2	356	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	438	753	1274	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	709	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	404	753	1274	-	-	-
Mov Cap-2 Maneuver	484	-	-	-	-	-
Stage 1	704	-	-	-	-	-
Stage 2	709	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1274	-	720	-	-
HCM Lane V/C Ratio	0.069	-	0.067	-	-
HCM Control Delay (s)	8	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-



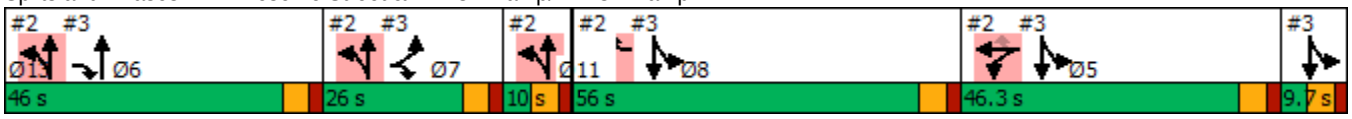
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	288	4	136	292	240	0	0	264	68
Future Volume (vph)	0	0	0	288	4	136	292	240	0	0	264	68
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.972	
Flt Protected				0.950	0.954		0.950	0.984				
Satd. Flow (prot)	0	0	0	1564	1570	1473	1476	3057	0	0	1684	0
Flt Permitted				0.950	0.954		0.950	0.984				
Satd. Flow (perm)	0	0	0	1564	1570	1473	1476	3057	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						136					6	
Link Speed (mph)		75			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		8.8			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	288	4	136	292	240	0	0	264	68
Shared Lane Traffic (%)				49%			41%					
Lane Group Flow (vph)	0	0	0	147	145	136	172	360	0	0	332	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				23.3	23.3	68.1	54.4	54.4			38.2	
Actuated g/C Ratio				0.16	0.16	0.47	0.38	0.38			0.26	
v/c Ratio				0.59	0.58	0.18	0.31	0.31			0.74	
Control Delay				69.3	68.8	3.9	4.7	3.7			60.8	
Queue Delay				0.0	0.0	0.0	1.0	0.5			0.0	
Total Delay				69.3	68.8	3.9	5.7	4.2			60.8	
LOS				E	E	A	A	A			E	
Approach Delay					48.3			4.7			60.8	
Approach LOS					D			A			E	

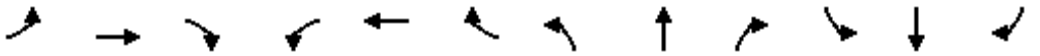
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 145	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.74	
Intersection Signal Delay: 33.6	Intersection LOS: C
Intersection Capacity Utilization 43.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



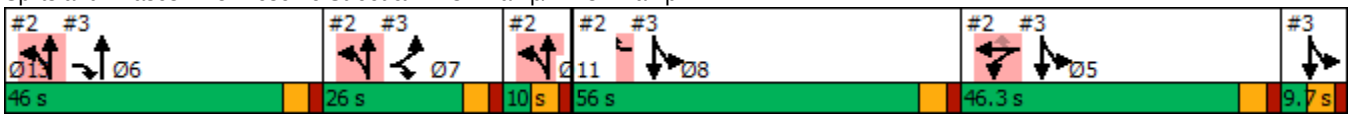
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	48	0	160	0	0	0	0	440	377	88	488	0
Future Volume (vph)	48	0	160	0	0	0	0	440	377	88	488	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor										1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1636	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160						377			
Link Speed (mph)		30			75			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			13.2			12.4			6.0	
Confl. Peds. (#/hr)										1		
Peak Hour 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
Adj. Flow (vph)	48	0	160	0	0	0	0	440	377	88	488	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	48	0	160	0	0	0	0	440	377	88	488	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7					6		5 8 13	5 8 13	
Switch Phase												

Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	12.0		44.0					25.8	145.0	77.8	77.8	
Actuated g/C Ratio	0.08		0.30					0.18	1.00	0.54	0.54	
v/c Ratio	0.36		0.18					0.53	0.26	0.10	0.28	
Control Delay	77.5		6.0					58.8	0.4	1.1	1.2	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.2	
Total Delay	77.5		6.0					58.8	0.4	1.1	1.4	
LOS	E		A					E	A	A	A	
Approach Delay		22.5						31.9			1.3	
Approach LOS		C						C			A	

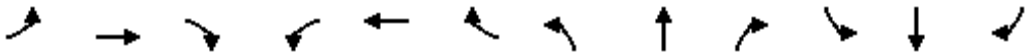
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 145			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.74			
Intersection Signal Delay: 19.7		Intersection LOS: B	
Intersection Capacity Utilization 43.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



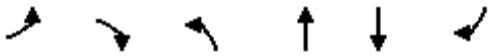
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	8	48	12	1	8	76	308	4	8	180	1
Future Volume (vph)	1	8	48	12	1	8	76	308	4	8	180	1
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.886			0.949			0.998			0.999	
Flt Protected		0.999			0.972		0.950				0.998	
Satd. Flow (prot)	0	1519	0	0	1583	0	1630	1712	0	0	1711	0
Flt Permitted		0.999			0.972		0.950				0.998	
Satd. Flow (perm)	0	1519	0	0	1583	0	1630	1712	0	0	1711	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		318			178			435			692	
Travel Time (s)		4.8			2.7			6.6			10.5	
Peak Hour 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
Adj. Flow (vph)	1	8	48	12	1	8	76	308	4	8	180	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	57	0	0	21	0	76	312	0	0	189	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.7%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	48	28	320	180	4
Future Volume (vph)	4	48	28	320	180	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.997	
Flt Protected	0.996			0.996		
Satd. Flow (prot)	1495	0	0	1709	1711	0
Flt Permitted	0.996			0.996		
Satd. Flow (perm)	1495	0	0	1709	1711	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	365			692	458	
Travel Time (s)	5.5			10.5	6.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	48	28	320	180	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	52	0	0	348	184	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	8	48	12	1	8	76	308	4	8	180	1
Future Vol, veh/h	1	8	48	12	1	8	76	308	4	8	180	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	48	12	1	8	76	308	4	8	180	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	664	661	181	687	659	310	181	0	0	312	0	0
Stage 1	197	197	-	462	462	-	-	-	-	-	-	-
Stage 2	467	464	-	225	197	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	374	383	862	361	384	730	1394	-	-	1248	-	-
Stage 1	805	738	-	580	565	-	-	-	-	-	-	-
Stage 2	576	564	-	778	738	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	352	359	862	319	360	730	1394	-	-	1248	-	-
Mov Cap-2 Maneuver	352	359	-	319	360	-	-	-	-	-	-	-
Stage 1	761	733	-	548	534	-	-	-	-	-	-	-
Stage 2	538	533	-	722	733	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	14.3	1.5	0.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1394	-	-	705	409	1248	-	-
HCM Lane V/C Ratio	0.055	-	-	0.081	0.051	0.006	-	-
HCM Control Delay (s)	7.7	-	-	10.6	14.3	7.9	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.2	0	-	-

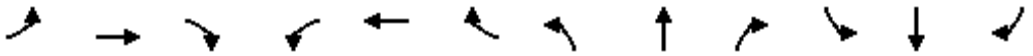
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	48	28	320	180	4
Future Vol, veh/h	4	48	28	320	180	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	48	28	320	180	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	558	182	184	0	-	0
Stage 1	182	-	-	-	-	-
Stage 2	376	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	491	861	1391	-	-	-
Stage 1	849	-	-	-	-	-
Stage 2	694	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	479	861	1391	-	-	-
Mov Cap-2 Maneuver	549	-	-	-	-	-
Stage 1	829	-	-	-	-	-
Stage 2	694	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1391	-	825	-	-
HCM Lane V/C Ratio	0.02	-	0.063	-	-
HCM Control Delay (s)	7.6	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



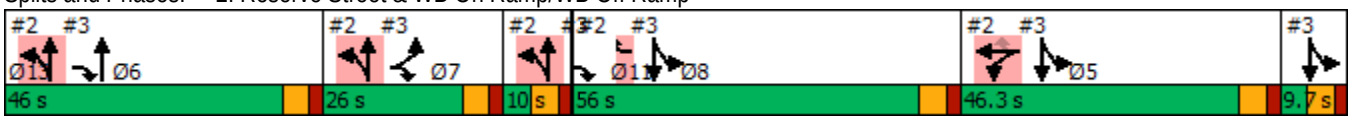
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	348	1	58	132	139	0	0	455	82
Future Volume (vph)	0	0	0	348	1	58	132	139	0	0	455	82
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.979	
Flt Protected				0.950	0.953		0.950	0.988				
Satd. Flow (prot)	0	0	0	1564	1569	1473	1476	3070	0	0	1696	0
Flt Permitted				0.950	0.953		0.950	0.988				
Satd. Flow (perm)	0	0	0	1564	1569	1473	1476	3070	0	0	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118					5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		22.0			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	348	1	58	132	139	0	0	455	82
Shared Lane Traffic (%)				50%			33%					
Lane Group Flow (vph)	0	0	0	174	175	58	88	183	0	0	537	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				27.8	27.8	84.5	46.9	46.9			50.3	
Actuated g/C Ratio				0.18	0.18	0.55	0.31	0.31			0.33	
v/c Ratio				0.61	0.61	0.07	0.20	0.19			0.96	
Control Delay				67.4	67.4	0.2	1.5	0.9			79.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				67.4	67.4	0.2	1.5	0.9			79.3	
LOS				E	E	A	A	A			E	
Approach Delay					57.8			1.1			79.3	
Approach LOS					E			A			E	

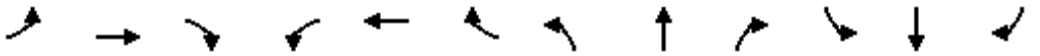
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 153.2	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 54.7	Intersection LOS: D
Intersection Capacity Utilization 52.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



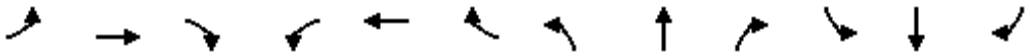
Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	34	0	324	0	0	0	0	257	149	191	608	0
Future Volume (vph)	34	0	324	0	0	0	0	257	149	191	608	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324						187			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			33.1			12.4			6.0	
Confl. Peds. (#/hr)												6
Peak Hour 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
Adj. Flow (vph)	34	0	324	0	0	0	0	257	149	191	608	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	0	324	0	0	0	0	257	149	191	608	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7 11					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7 11					6		5 8 13	5 8 13	
Switch Phase												

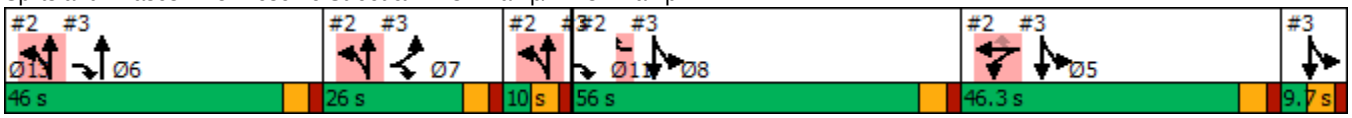
Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	10.1		46.9					20.7	153.2	93.9	93.9	
Actuated g/C Ratio	0.07		0.31					0.14	1.00	0.61	0.61	
v/c Ratio	0.31		0.32					0.41	0.10	0.19	0.30	
Control Delay	78.5		4.7					64.3	0.1	0.4	0.3	
Queue Delay	0.0		0.0					0.0	0.0	0.5	0.3	
Total Delay	78.5		4.7					64.3	0.1	0.8	0.6	
LOS	E		A					E	A	A	A	
Approach Delay		11.7						40.8			0.7	
Approach LOS		B						D			A	

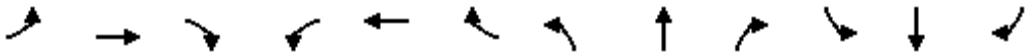
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 153.2			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.96			
Intersection Signal Delay: 13.6		Intersection LOS: B	
Intersection Capacity Utilization 52.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



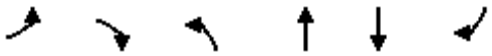
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	93	28	1	8	36	174	4	8	282	1
Future Volume (vph)	5	1	93	28	1	8	36	174	4	8	282	1
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.873			0.971			0.997				
Flt Protected		0.997			0.964		0.950				0.999	
Satd. Flow (prot)	0	1493	0	0	1606	0	1630	1711	0	0	1714	0
Flt Permitted		0.997			0.964		0.950				0.999	
Satd. Flow (perm)	0	1493	0	0	1606	0	1630	1711	0	0	1714	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		575			291			351			587	
Travel Time (s)		8.7			4.4			5.3			8.9	
Peak Hour 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
Adj. Flow (vph)	5	1	93	28	1	8	36	174	4	8	282	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	99	0	0	37	0	36	178	0	0	291	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 38.8%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	50	90	181	284	4
Future Volume (vph)	4	50	90	181	284	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.998	
Flt Protected	0.996			0.984		
Satd. Flow (prot)	1495	0	0	1688	1712	0
Flt Permitted	0.996			0.984		
Satd. Flow (perm)	1495	0	0	1688	1712	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	819			587	252	
Travel Time (s)	12.4			8.9	3.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	50	90	181	284	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	0	0	271	288	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	1	93	28	1	8	36	174	4	8	282	1
Future Vol, veh/h	5	1	93	28	1	8	36	174	4	8	282	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	1	93	28	1	8	36	174	4	8	282	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	552	549	283	594	547	176	283	0	0	178	0	0
Stage 1	299	299	-	248	248	-	-	-	-	-	-	-
Stage 2	253	250	-	346	299	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	444	443	756	417	445	867	1279	-	-	1398	-	-
Stage 1	710	666	-	756	701	-	-	-	-	-	-	-
Stage 2	751	700	-	670	666	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	428	427	756	355	429	867	1279	-	-	1398	-	-
Mov Cap-2 Maneuver	428	427	-	355	429	-	-	-	-	-	-	-
Stage 1	690	661	-	735	681	-	-	-	-	-	-	-
Stage 2	722	680	-	583	661	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	14.7	1.3	0.2
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1279	-	-	722	409	1398	-	-
HCM Lane V/C Ratio	0.028	-	-	0.137	0.09	0.006	-	-
HCM Control Delay (s)	7.9	-	-	10.8	14.7	7.6	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.5	0.3	0	-	-

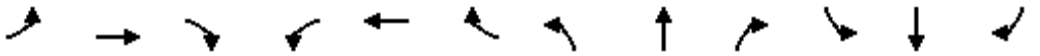
Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	50	90	181	284	4
Future Vol, veh/h	4	50	90	181	284	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	50	90	181	284	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	647	286	288	0	-	0
Stage 1	286	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	436	753	1274	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	402	753	1274	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	703	-	-	-	-	-
Stage 2	705	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1274	-	723	-	-
HCM Lane V/C Ratio	0.071	-	0.075	-	-
HCM Control Delay (s)	8	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-



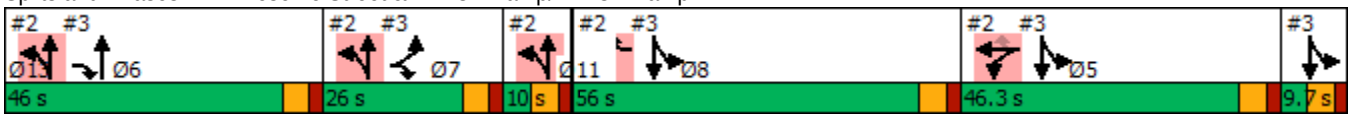
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	288	4	143	292	261	0	0	278	72
Future Volume (vph)	0	0	0	288	4	143	292	261	0	0	278	72
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.972	
Flt Protected				0.950	0.954		0.950	0.985				
Satd. Flow (prot)	0	0	0	1564	1570	1473	1476	3060	0	0	1684	0
Flt Permitted				0.950	0.954		0.950	0.985				
Satd. Flow (perm)	0	0	0	1564	1570	1473	1476	3060	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						143					6	
Link Speed (mph)		75			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		8.8			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	288	4	143	292	261	0	0	278	72
Shared Lane Traffic (%)				49%			38%					
Lane Group Flow (vph)	0	0	0	147	145	143	181	372	0	0	350	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				23.7	23.7	70.6	56.1	56.1			40.4	
Actuated g/C Ratio				0.16	0.16	0.47	0.38	0.38			0.27	
v/c Ratio				0.60	0.58	0.19	0.33	0.32			0.76	
Control Delay				71.6	71.0	3.9	4.8	3.6			62.9	
Queue Delay				0.0	0.0	0.0	1.0	0.5			0.0	
Total Delay				71.6	71.0	3.9	5.8	4.1			62.9	
LOS				E	E	A	A	A			E	
Approach Delay					49.2			4.7			62.9	
Approach LOS					D			A			E	

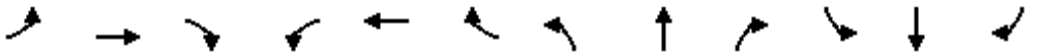
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 149.2	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 34.4	Intersection LOS: C
Intersection Capacity Utilization 43.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



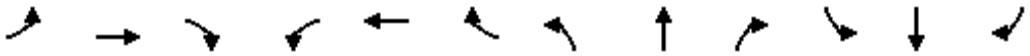
Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	0	160	0	0	0	0	456	377	92	498	0
Future Volume (vph)	54	0	160	0	0	0	0	456	377	92	498	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor										1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1636	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160						377			
Link Speed (mph)		30			75			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			13.2			12.4			6.0	
Confl. Peds. (#/hr)										1		
Peak Hour 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
Adj. Flow (vph)	54	0	160	0	0	0	0	456	377	92	498	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	54	0	160	0	0	0	0	456	377	92	498	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7					6		5 8 13	5 8 13	
Switch Phase												

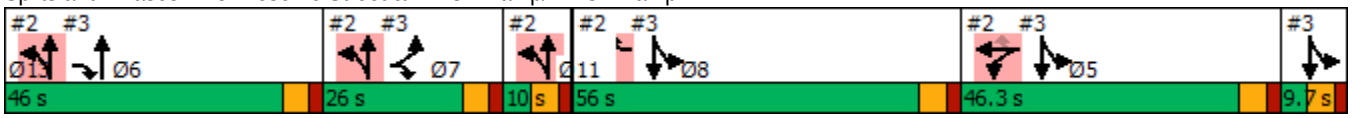
Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	12.6		45.7					26.8	149.2	80.3	80.3	
Actuated g/C Ratio	0.08		0.31					0.18	1.00	0.54	0.54	
v/c Ratio	0.39		0.18					0.54	0.26	0.10	0.28	
Control Delay	79.6		6.0					60.2	0.4	1.1	1.2	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.2	
Total Delay	79.6		6.0					60.2	0.4	1.1	1.4	
LOS	E		A					E	A	A	A	
Approach Delay		24.6						33.1			1.3	
Approach LOS		C						C			A	

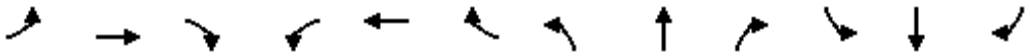
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 149.2			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 20.6		Intersection LOS: C	
Intersection Capacity Utilization 43.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



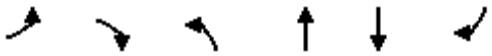
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	8	62	12	1	8	99	314	4	8	184	1
Future Volume (vph)	1	8	62	12	1	8	99	314	4	8	184	1
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.882			0.949			0.998			0.999	
Flt Protected		0.999			0.972		0.950				0.998	
Satd. Flow (prot)	0	1512	0	0	1583	0	1630	1712	0	0	1711	0
Flt Permitted		0.999			0.972		0.950				0.998	
Satd. Flow (perm)	0	1512	0	0	1583	0	1630	1712	0	0	1711	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		318			178			435			692	
Travel Time (s)		4.8			2.7			6.6			10.5	
Peak Hour 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
Adj. Flow (vph)	1	8	62	12	1	8	99	314	4	8	184	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	0	0	21	0	99	318	0	0	193	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.2%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	4	52	34	321	181	4
Future Volume (vph)	4	52	34	321	181	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.997	
Flt Protected	0.996			0.995		
Satd. Flow (prot)	1495	0	0	1707	1711	0
Flt Permitted	0.996			0.995		
Satd. Flow (perm)	1495	0	0	1707	1711	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	365			692	458	
Travel Time (s)	5.5			10.5	6.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	4	52	34	321	181	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	56	0	0	355	185	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	8	62	12	1	8	99	314	4	8	184	1
Future Vol, veh/h	1	8	62	12	1	8	99	314	4	8	184	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	8	62	12	1	8	99	314	4	8	184	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	720	717	185	750	715	316	185	0	0	318	0	0
Stage 1	201	201	-	514	514	-	-	-	-	-	-	-
Stage 2	519	516	-	236	201	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	343	355	857	328	356	724	1390	-	-	1242	-	-
Stage 1	801	735	-	543	535	-	-	-	-	-	-	-
Stage 2	540	534	-	767	735	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	318	327	857	281	328	724	1390	-	-	1242	-	-
Mov Cap-2 Maneuver	318	327	-	281	328	-	-	-	-	-	-	-
Stage 1	744	730	-	504	497	-	-	-	-	-	-	-
Stage 2	495	496	-	699	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	15.3	1.8	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1390	-	-	710	370	1242	-	-
HCM Lane V/C Ratio	0.071	-	-	0.1	0.057	0.006	-	-
HCM Control Delay (s)	7.8	-	-	10.6	15.3	7.9	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	0.2	0	-	-

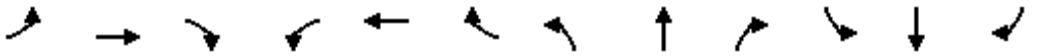
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	52	34	321	181	4
Future Vol, veh/h	4	52	34	321	181	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	52	34	321	181	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	572	183	185	0	-	0
Stage 1	183	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	482	859	1390	-	-	-
Stage 1	848	-	-	-	-	-
Stage 2	685	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	468	859	1390	-	-	-
Mov Cap-2 Maneuver	538	-	-	-	-	-
Stage 1	823	-	-	-	-	-
Stage 2	685	-	-	-	-	-

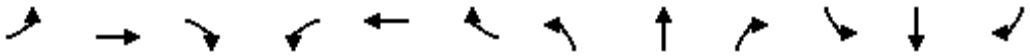
Approach	EB	NB	SB
HCM Control Delay, s	9.7	0.7	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1390	-	824	-	-
HCM Lane V/C Ratio	0.024	-	0.068	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	348	1	62	132	150	0	0	486	89
Future Volume (vph)	0	0	0	348	1	62	132	150	0	0	486	89
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.979	
Flt Protected				0.950	0.953		0.950	0.989				
Satd. Flow (prot)	0	0	0	1564	1569	1473	1476	3073	0	0	1696	0
Flt Permitted				0.950	0.953		0.950	0.989				
Satd. Flow (perm)	0	0	0	1564	1569	1473	1476	3073	0	0	1696	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118					5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		22.0			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	348	1	62	132	150	0	0	486	89
Shared Lane Traffic (%)				50%			31%					
Lane Group Flow (vph)	0	0	0	174	175	62	91	191	0	0	575	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

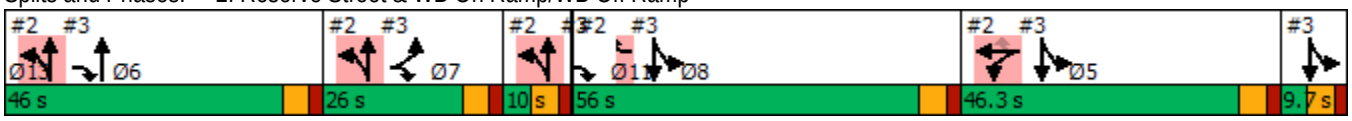
Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				28.3	28.3	85.0	47.4	47.4			50.3	
Actuated g/C Ratio				0.18	0.18	0.55	0.31	0.31			0.33	
v/c Ratio				0.61	0.61	0.07	0.20	0.20			1.03	
Control Delay				67.4	67.4	0.2	1.6	0.9			96.7	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				67.4	67.4	0.2	1.6	0.9			96.7	
LOS				E	E	A	A	A			F	
Approach Delay					57.2			1.1			96.7	
Approach LOS					E			A			F	

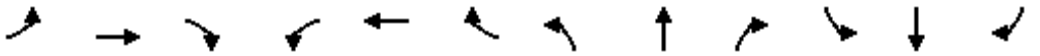
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 154.2	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.03	
Intersection Signal Delay: 62.7	Intersection LOS: E
Intersection Capacity Utilization 54.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



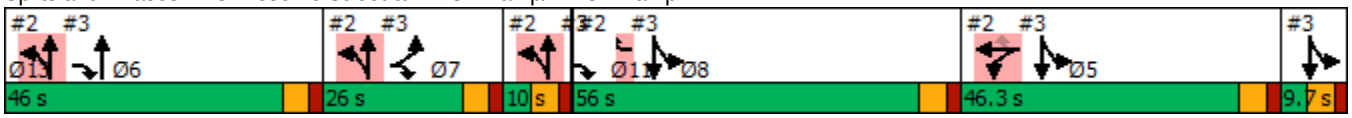
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	37	0	324	0	0	0	0	265	149	201	629	0
Future Volume (vph)	37	0	324	0	0	0	0	265	149	201	629	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324						187			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			33.1			12.4			6.0	
Confl. Peds. (#/hr)												6
Peak Hour 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
Adj. Flow (vph)	37	0	324	0	0	0	0	265	149	201	629	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	37	0	324	0	0	0	0	265	149	201	629	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7 11					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7 11					6		5 8 13	5 8 13	
Switch Phase												

Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	10.5		47.4					20.8	154.2	94.4	94.4	
Actuated g/C Ratio	0.07		0.31					0.13	1.00	0.61	0.61	
v/c Ratio	0.33		0.32					0.42	0.10	0.20	0.31	
Control Delay	78.8		4.7					65.0	0.1	0.3	0.3	
Queue Delay	0.0		0.0					0.0	0.0	0.5	0.3	
Total Delay	78.8		4.7					65.0	0.1	0.8	0.6	
LOS	E		A					E	A	A	A	
Approach Delay		12.3						41.7			0.7	
Approach LOS		B						D			A	

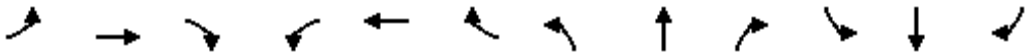
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 154.2			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 13.9		Intersection LOS: B	
Intersection Capacity Utilization 54.4%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



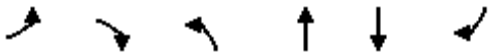
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	1	110	28	1	8	46	178	4	8	293	1
Future Volume (vph)	7	1	110	28	1	8	46	178	4	8	293	1
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.874			0.971			0.997				
Flt Protected		0.997			0.964		0.950				0.999	
Satd. Flow (prot)	0	1495	0	0	1606	0	1630	1711	0	0	1714	0
Flt Permitted		0.997			0.964		0.950				0.999	
Satd. Flow (perm)	0	1495	0	0	1606	0	1630	1711	0	0	1714	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		575			291			351			587	
Travel Time (s)		8.7			4.4			5.3			8.9	
Peak Hour 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
Adj. Flow (vph)	7	1	110	28	1	8	46	178	4	8	293	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	118	0	0	37	0	46	182	0	0	302	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.3%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	61	94	183	285	4
Future Volume (vph)	5	61	94	183	285	4
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.875				0.998	
Flt Protected	0.996			0.983		
Satd. Flow (prot)	1495	0	0	1687	1712	0
Flt Permitted	0.996			0.983		
Satd. Flow (perm)	1495	0	0	1687	1712	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	819			587	252	
Travel Time (s)	12.4			8.9	3.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	61	94	183	285	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	66	0	0	277	289	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 47.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	1	110	28	1	8	46	178	4	8	293	1
Future Vol, veh/h	7	1	110	28	1	8	46	178	4	8	293	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	1	110	28	1	8	46	178	4	8	293	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	587	584	294	637	582	180	294	0	0	182	0	0
Stage 1	310	310	-	272	272	-	-	-	-	-	-	-
Stage 2	277	274	-	365	310	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	421	423	745	390	425	863	1268	-	-	1393	-	-
Stage 1	700	659	-	734	685	-	-	-	-	-	-	-
Stage 2	729	683	-	654	659	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	402	405	745	321	407	863	1268	-	-	1393	-	-
Mov Cap-2 Maneuver	402	405	-	321	407	-	-	-	-	-	-	-
Stage 1	675	654	-	708	660	-	-	-	-	-	-	-
Stage 2	695	658	-	553	654	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.1	15.7	1.6	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1268	-	-	704	374	1393	-	-
HCM Lane V/C Ratio	0.036	-	-	0.168	0.099	0.006	-	-
HCM Control Delay (s)	7.9	-	-	11.1	15.7	7.6	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0	-	-

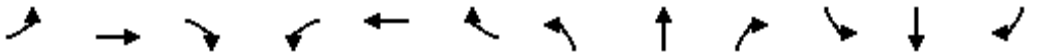
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	61	94	183	285	4
Future Vol, veh/h	5	61	94	183	285	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	61	94	183	285	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	658	287	289	0	-	0
Stage 1	287	-	-	-	-	-
Stage 2	371	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	429	752	1273	-	-	-
Stage 1	762	-	-	-	-	-
Stage 2	698	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	394	752	1273	-	-	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	698	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1273	-	720	-	-
HCM Lane V/C Ratio	0.074	-	0.092	-	-
HCM Control Delay (s)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-



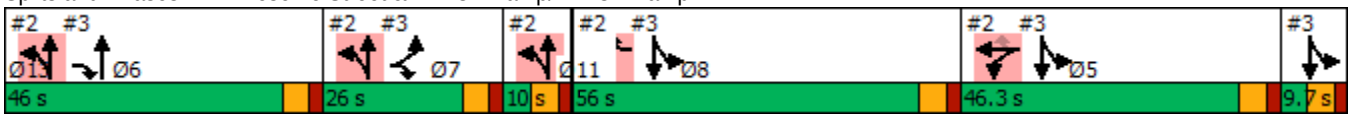
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	288	4	153	292	291	0	0	299	77
Future Volume (vph)	0	0	0	288	4	153	292	291	0	0	299	77
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.972	
Flt Protected				0.950	0.954		0.950	0.987				
Satd. Flow (prot)	0	0	0	1564	1570	1473	1476	3067	0	0	1684	0
Flt Permitted				0.950	0.954		0.950	0.987				
Satd. Flow (perm)	0	0	0	1564	1570	1473	1476	3067	0	0	1684	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						153					6	
Link Speed (mph)		75			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		8.8			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	288	4	153	292	291	0	0	299	77
Shared Lane Traffic (%)				49%			35%					
Lane Group Flow (vph)	0	0	0	147	145	153	190	393	0	0	376	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				24.0	24.0	73.6	58.0	58.0			43.0	
Actuated g/C Ratio				0.16	0.16	0.48	0.38	0.38			0.28	
v/c Ratio				0.60	0.59	0.20	0.34	0.34			0.79	
Control Delay				74.2	73.7	3.9	4.6	3.4			65.5	
Queue Delay				0.0	0.0	0.0	1.0	0.5			0.0	
Total Delay				74.2	73.7	3.9	5.7	3.9			65.5	
LOS				E	E	A	A	A			E	
Approach Delay					49.9			4.5			65.5	
Approach LOS					D			A			E	

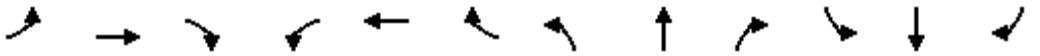
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 154	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.79	
Intersection Signal Delay: 35.2	Intersection LOS: D
Intersection Capacity Utilization 43.3%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



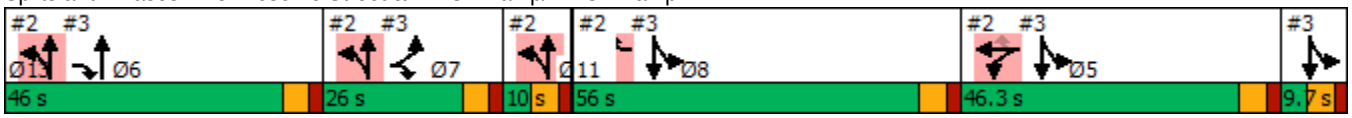
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	0	160	0	0	0	0	477	377	99	512	0
Future Volume (vph)	62	0	160	0	0	0	0	477	377	99	512	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor										1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1636	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160						377			
Link Speed (mph)		30			75			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			13.2			12.4			6.0	
Confl. Peds. (#/hr)										1		
Peak Hour 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
Adj. Flow (vph)	62	0	160	0	0	0	0	477	377	99	512	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	62	0	160	0	0	0	0	477	377	99	512	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7					6		5 8 13	5 8 13	
Switch Phase												

Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	13.5		47.7					28.0	154.0	83.3	83.3	
Actuated g/C Ratio	0.09		0.31					0.18	1.00	0.54	0.54	
v/c Ratio	0.43		0.18					0.56	0.26	0.11	0.29	
Control Delay	82.1		5.8					61.9	0.4	1.1	1.2	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.2	
Total Delay	82.1		5.8					61.9	0.4	1.1	1.4	
LOS	F		A					E	A	A	A	
Approach Delay		27.1						34.8			1.4	
Approach LOS		C						C			A	

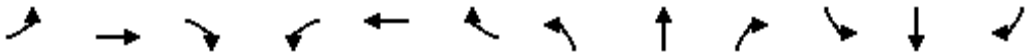
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 154			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 21.7		Intersection LOS: C	
Intersection Capacity Utilization 43.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



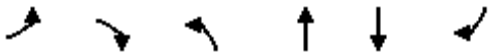
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	80	12	1	8	127	326	4	8	191	3
Future Volume (vph)	2	8	80	12	1	8	127	326	4	8	191	3
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.880			0.949			0.998			0.998	
Flt Protected		0.999			0.972		0.950				0.998	
Satd. Flow (prot)	0	1508	0	0	1583	0	1630	1712	0	0	1709	0
Flt Permitted		0.999			0.972		0.950				0.998	
Satd. Flow (perm)	0	1508	0	0	1583	0	1630	1712	0	0	1709	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		318			178			435			692	
Travel Time (s)		4.8			2.7			6.6			10.5	
Peak Hour 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
Adj. Flow (vph)	2	8	80	12	1	8	127	326	4	8	191	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	90	0	0	21	0	127	330	0	0	202	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 48.5%		ICU Level of Service A	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	5	59	46	322	183	5
Future Volume (vph)	5	59	46	322	183	5
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.876				0.996	
Flt Protected	0.996			0.994		
Satd. Flow (prot)	1497	0	0	1705	1709	0
Flt Permitted	0.996			0.994		
Satd. Flow (perm)	1497	0	0	1705	1709	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	365			692	458	
Travel Time (s)	5.5			10.5	6.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	5	59	46	322	183	5
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	0	368	188	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	8	80	12	1	8	127	326	4	8	191	3
Future Vol, veh/h	2	8	80	12	1	8	127	326	4	8	191	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	8	80	12	1	8	127	326	4	8	191	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	796	793	193	835	792	328	194	0	0	330	0	0
Stage 1	209	209	-	582	582	-	-	-	-	-	-	-
Stage 2	587	584	-	253	210	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	305	321	849	287	322	713	1379	-	-	1229	-	-
Stage 1	793	729	-	499	499	-	-	-	-	-	-	-
Stage 2	496	498	-	751	728	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	278	290	849	235	290	713	1379	-	-	1229	-	-
Mov Cap-2 Maneuver	278	290	-	235	290	-	-	-	-	-	-	-
Stage 1	720	724	-	453	453	-	-	-	-	-	-	-
Stage 2	444	452	-	668	723	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	17.1	2.2	0.3
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1379	-	-	698	319	1229	-	-
HCM Lane V/C Ratio	0.092	-	-	0.129	0.066	0.007	-	-
HCM Control Delay (s)	7.9	-	-	10.9	17.1	7.9	-	-
HCM Lane LOS	A	-	-	B	C	A	-	-
HCM 95th %tile Q(veh)	0.3	-	-	0.4	0.2	0	-	-

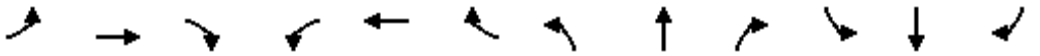
Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	59	46	322	183	5
Future Vol, veh/h	5	59	46	322	183	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	59	46	322	183	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	600	186	188	0	-	0
Stage 1	186	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	464	856	1386	-	-	-
Stage 1	846	-	-	-	-	-
Stage 2	667	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	445	856	1386	-	-	-
Mov Cap-2 Maneuver	515	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	667	-	-	-	-	-

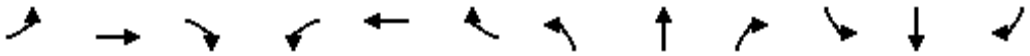
Approach	EB	NB	SB
HCM Control Delay, s	9.8	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1386	-	814	-	-
HCM Lane V/C Ratio	0.033	-	0.079	-	-
HCM Control Delay (s)	7.7	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	348	1	77	132	195	0	0	624	124
Future Volume (vph)	0	0	0	348	1	77	132	195	0	0	624	124
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-2%	
Storage Length (ft)	0		0	330		330	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			200			25			25		
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Frt						0.850					0.978	
Flt Protected				0.950	0.953		0.950	0.994				
Satd. Flow (prot)	0	0	0	1564	1569	1473	1476	3088	0	0	1695	0
Flt Permitted				0.950	0.953		0.950	0.994				
Satd. Flow (perm)	0	0	0	1564	1569	1473	1476	3088	0	0	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						118					5	
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		967			1298			399			506	
Travel Time (s)		22.0			29.5			6.0			7.7	
Peak Hour 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
Adj. Flow (vph)	0	0	0	348	1	77	132	195	0	0	624	124
Shared Lane Traffic (%)				50%			20%					
Lane Group Flow (vph)	0	0	0	174	175	77	106	221	0	0	748	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors				1	1	1	1	1			1	
Detector Template				Left	Thru	Right	Left	Thru			Thru	
Leading Detector (ft)				50	50	50	50	50			50	
Trailing Detector (ft)				0	0	0	0	0			0	
Detector 1 Position(ft)				0	0	0	0	0			0	
Detector 1 Size(ft)				50	50	50	50	50			50	
Detector 1 Type				Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex			Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Queue (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Detector 1 Delay (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Turn Type				Split	NA	custom	Split	NA			NA	
Protected Phases				5	5	8	6 7 11	6 7 11			8	
Permitted Phases						5						
Detector Phase				5	5	8	6 7 11	6 7 11			8	
Switch Phase												
Minimum Initial (s)				6.0	6.0	20.0					20.0	
Minimum Split (s)				39.3	39.3	33.0					33.0	

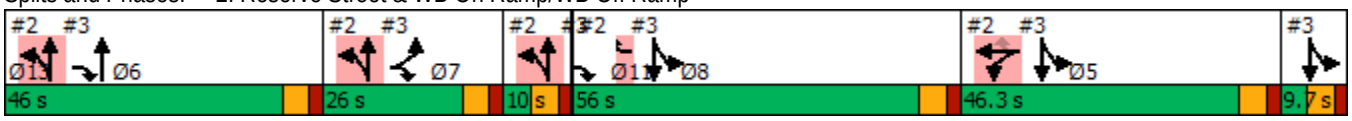
Lane Group	Ø6	Ø7	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	6	7	11	13
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	20.0	6.0	4.0	3.7
Minimum Split (s)	34.0	46.0	10.0	9.7



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (s)				46.3	46.3	56.0					56.0	
Total Split (%)				23.9%	23.9%	28.9%					28.9%	
Maximum Green (s)				40.0	40.0	50.0					50.0	
Yellow Time (s)				4.3	4.3	4.0					4.0	
All-Red Time (s)				2.0	2.0	2.0					2.0	
Lost Time Adjust (s)				0.0	0.0	0.0					0.0	
Total Lost Time (s)				6.3	6.3	6.0					6.0	
Lead/Lag				Lag	Lag	Lead					Lead	
Lead-Lag Optimize?												
Vehicle Extension (s)				4.0	4.0	4.5					4.5	
Recall Mode				None	None	None					None	
Walk Time (s)				7.0	7.0	7.0					7.0	
Flash Dont Walk (s)				18.0	18.0	20.0					20.0	
Pedestrian Calls (#/hr)				0	0	0					0	
Act Effct Green (s)				29.9	29.9	86.6	49.7	49.7			50.4	
Actuated g/C Ratio				0.19	0.19	0.55	0.31	0.31			0.32	
v/c Ratio				0.59	0.59	0.09	0.23	0.23			1.38	
Control Delay				67.5	67.5	0.7	1.4	0.6			221.6	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				67.5	67.5	0.7	1.4	0.6			221.6	
LOS				E	E	A	A	A			F	
Approach Delay					55.5			0.8			221.6	
Approach LOS					E			A			F	

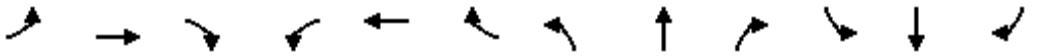
Intersection Summary	
Area Type:	Other
Cycle Length: 194	
Actuated Cycle Length: 158.2	
Natural Cycle: 175	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.38	
Intersection Signal Delay: 126.4	Intersection LOS: F
Intersection Capacity Utilization 64.6%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 2: Reserve Street & WB On Ramp/WB Off Ramp



Lane Group	Ø6	Ø7	Ø11	Ø13
Total Split (s)	46.0	26.0	10.0	9.7
Total Split (%)	24%	13%	5%	5%
Maximum Green (s)	40.0	20.0	4.0	3.7
Yellow Time (s)	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lead	Lag		
Lead-Lag Optimize?				
Vehicle Extension (s)	3.5	3.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	21.0	25.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



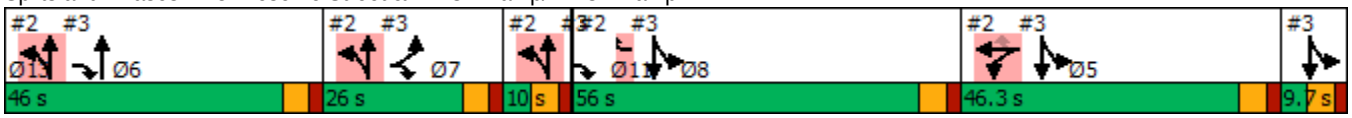
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	49	0	324	0	0	0	0	298	149	244	725	0
Future Volume (vph)	49	0	324	0	0	0	0	298	149	244	725	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			324						187			
Link Speed (mph)		30			30			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			33.1			12.4			6.0	
Confl. Peds. (#/hr)												6
Peak Hour 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
Adj. Flow (vph)	49	0	324	0	0	0	0	298	149	244	725	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	49	0	324	0	0	0	0	298	149	244	725	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7 11					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7 11					6		5 8 13	5 8 13	
Switch Phase												

Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	12.0		49.7					21.7	158.2	96.1	96.1	
Actuated g/C Ratio	0.08		0.31					0.14	1.00	0.61	0.61	
v/c Ratio	0.40		0.31					0.47	0.10	0.25	0.36	
Control Delay	81.4		4.5					66.9	0.1	0.1	0.1	
Queue Delay	0.0		0.0					0.0	0.0	0.7	0.5	
Total Delay	81.4		4.5					66.9	0.1	0.9	0.6	
LOS	F		A					E	A	A	A	
Approach Delay		14.6						44.7			0.7	
Approach LOS		B						D			A	

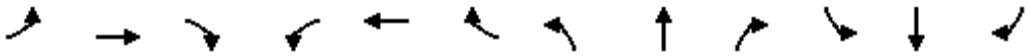
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 158.2			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 1.38			
Intersection Signal Delay: 14.6		Intersection LOS: B	
Intersection Capacity Utilization 64.6%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



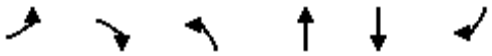
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	12	1	214	28	1	8	82	202	4	8	363	3
Future Volume (vph)	12	1	214	28	1	8	82	202	4	8	363	3
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.873			0.971			0.997			0.999	
Flt Protected		0.997			0.964		0.950				0.999	
Satd. Flow (prot)	0	1493	0	0	1606	0	1630	1711	0	0	1712	0
Flt Permitted		0.997			0.964		0.950				0.999	
Satd. Flow (perm)	0	1493	0	0	1606	0	1630	1711	0	0	1712	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		575			291			351			587	
Travel Time (s)		8.7			4.4			5.3			8.9	
Peak Hour 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
Adj. Flow (vph)	12	1	214	28	1	8	82	202	4	8	363	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	227	0	0	37	0	82	206	0	0	374	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 58.2%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	9	131	118	188	287	6
Future Volume (vph)	9	131	118	188	287	6
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874				0.997	
Flt Protected	0.997			0.981		
Satd. Flow (prot)	1495	0	0	1683	1711	0
Flt Permitted	0.997			0.981		
Satd. Flow (perm)	1495	0	0	1683	1711	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	819			587	252	
Travel Time (s)	12.4			8.9	3.8	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	9	131	118	188	287	6
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	0	306	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	1	214	28	1	8	82	202	4	8	363	3
Future Vol, veh/h	12	1	214	28	1	8	82	202	4	8	363	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	1	214	28	1	8	82	202	4	8	363	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	754	751	365	856	750	204	366	0	0	206	0	0
Stage 1	381	381	-	368	368	-	-	-	-	-	-	-
Stage 2	373	370	-	488	382	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	326	340	680	278	340	837	1193	-	-	1365	-	-
Stage 1	641	613	-	652	621	-	-	-	-	-	-	-
Stage 2	648	620	-	561	613	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	304	314	680	179	314	837	1193	-	-	1365	-	-
Mov Cap-2 Maneuver	304	314	-	179	314	-	-	-	-	-	-	-
Stage 1	597	609	-	607	578	-	-	-	-	-	-	-
Stage 2	597	577	-	381	609	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	24.8	2.3	0.2
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1193	-	-	635	219	1365	-	-
HCM Lane V/C Ratio	0.069	-	-	0.357	0.169	0.006	-	-
HCM Control Delay (s)	8.2	-	-	13.8	24.8	7.7	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.6	0.6	0	-	-

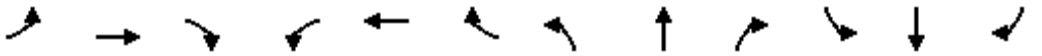
Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	131	118	188	287	6
Future Vol, veh/h	9	131	118	188	287	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	131	118	188	287	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	714	290	293	0	-	0
Stage 1	290	-	-	-	-	-
Stage 2	424	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	398	749	1269	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	660	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	357	749	1269	-	-	-
Mov Cap-2 Maneuver	433	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	3.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1269	-	715	-	-
HCM Lane V/C Ratio	0.093	-	0.196	-	-
HCM Control Delay (s)	8.1	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.7	-	-



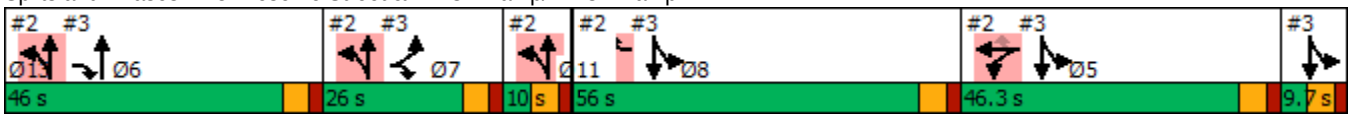
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	0	160	0	0	0	0	573	377	126	573	0
Future Volume (vph)	97	0	160	0	0	0	0	573	377	126	573	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Grade (%)		-2%			-2%			1%			-1%	
Storage Length (ft)	165		165	0		0	150		240	190		0
Storage Lanes	1		1	0		0	1		1	1		0
Taper Length (ft)	200			25			30			50		
Lane Util. Factor	1.00	1.00	0.88	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.95	1.00
Ped Bike Factor										1.00		
Frt			0.850						0.850			
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1646	0	2592	0	0	0	0	4660	1451	1638	3276	0
Flt Permitted	0.950									0.950		
Satd. Flow (perm)	1646	0	2592	0	0	0	0	4660	1451	1637	3276	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			160						353			
Link Speed (mph)		30			75			45			45	
Link Distance (ft)		1164			1456			816			399	
Travel Time (s)		26.5			13.2			12.4			6.0	
Confl. Peds. (#/hr)										1		
Peak Hour 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
Adj. Flow (vph)	97	0	160	0	0	0	0	573	377	126	573	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	0	160	0	0	0	0	573	377	126	573	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Right	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.12	1.12	1.12	1.10	1.10	1.10
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1		1					1	1	1	1	
Detector Template	Left		Right					Thru	Right	Left	Thru	
Leading Detector (ft)	50		50					50	50	50	50	
Trailing Detector (ft)	0		0					0	0	0	0	
Detector 1 Position(ft)	0		0					0	0	0	0	
Detector 1 Size(ft)	50		50					50	50	50	50	
Detector 1 Type	Cl+Ex		Cl+Ex					Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Queue (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Detector 1 Delay (s)	0.0		0.0					0.0	0.0	0.0	0.0	
Turn Type	Prot		custom					NA	Free	Split	NA	
Protected Phases	7		6 7					6		5 8 13	5 8 13	
Permitted Phases									Free			
Detector Phase	7		6 7					6		5 8 13	5 8 13	
Switch Phase												

Lane Group	Ø5	Ø8	Ø11	Ø13
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Grade (%)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Ped Bike Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Confl. Peds. (#/hr)				
Peak Hour Factor				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Enter Blocked Intersection				
Lane Alignment				
Median Width(ft)				
Link Offset(ft)				
Crosswalk Width(ft)				
Two way Left Turn Lane				
Headway Factor				
Turning Speed (mph)				
Number of Detectors				
Detector Template				
Leading Detector (ft)				
Trailing Detector (ft)				
Detector 1 Position(ft)				
Detector 1 Size(ft)				
Detector 1 Type				
Detector 1 Channel				
Detector 1 Extend (s)				
Detector 1 Queue (s)				
Detector 1 Delay (s)				
Turn Type				
Protected Phases	5	8	11	13
Permitted Phases				
Detector Phase				
Switch Phase				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	6.0							20.0				
Minimum Split (s)	46.0							34.0				
Total Split (s)	26.0							46.0				
Total Split (%)	13.4%							23.7%				
Maximum Green (s)	20.0							40.0				
Yellow Time (s)	4.0							4.0				
All-Red Time (s)	2.0							2.0				
Lost Time Adjust (s)	0.0							0.0				
Total Lost Time (s)	6.0							6.0				
Lead/Lag	Lag							Lead				
Lead-Lag Optimize?												
Vehicle Extension (s)	3.5							3.5				
Recall Mode	None							None				
Walk Time (s)	7.0							7.0				
Flash Dont Walk (s)	25.0							21.0				
Pedestrian Calls (#/hr)	0							0				
Act Effct Green (s)	16.7		55.2					32.4	170.4	92.6	92.6	
Actuated g/C Ratio	0.10		0.32					0.19	1.00	0.54	0.54	
v/c Ratio	0.60		0.17					0.65	0.26	0.14	0.32	
Control Delay	92.5		5.7					68.0	0.4	1.0	1.1	
Queue Delay	0.0		0.0					0.0	0.0	0.0	0.3	
Total Delay	92.5		5.7					68.0	0.4	1.0	1.4	
LOS	F		A					E	A	A	A	
Approach Delay		38.4						41.2			1.3	
Approach LOS		D						D			A	

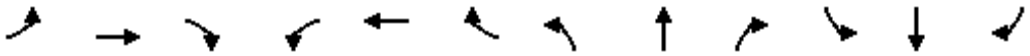
Intersection Summary			
Area Type:	Other		
Cycle Length: 194			
Actuated Cycle Length: 170.4			
Natural Cycle: 175			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.97			
Intersection Signal Delay: 26.2		Intersection LOS: C	
Intersection Capacity Utilization 47.7%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Reserve Street & EB Off Ramp/EB On Ramp



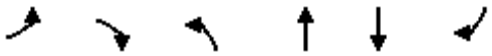
Lane Group	Ø5	Ø8	Ø11	Ø13
Minimum Initial (s)	6.0	20.0	4.0	3.7
Minimum Split (s)	39.3	33.0	10.0	9.7
Total Split (s)	46.3	56.0	10.0	9.7
Total Split (%)	24%	29%	5%	5%
Maximum Green (s)	40.0	50.0	4.0	3.7
Yellow Time (s)	4.3	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead		
Lead-Lag Optimize?				
Vehicle Extension (s)	4.0	4.5	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)	7.0	7.0		
Flash Dont Walk (s)	18.0	20.0		
Pedestrian Calls (#/hr)	0	0		
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				
Total Delay				
LOS				
Approach Delay				
Approach LOS				

Intersection Summary



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	8	147	12	1	8	231	395	4	8	236	8
Future Volume (vph)	5	8	147	12	1	8	231	395	4	8	236	8
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Lane Util. 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
Frt		0.876			0.949			0.998			0.996	
Flt Protected		0.998			0.972		0.950				0.998	
Satd. Flow (prot)	0	1500	0	0	1583	0	1630	1712	0	0	1705	0
Flt Permitted		0.998			0.972		0.950				0.998	
Satd. Flow (perm)	0	1500	0	0	1583	0	1630	1712	0	0	1705	0
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		318			178			435			692	
Travel Time (s)		4.8			2.7			6.6			10.5	
Peak Hour 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
Adj. Flow (vph)	5	8	147	12	1	8	231	395	4	8	236	8
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	160	0	0	21	0	231	399	0	0	252	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes			Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 57.9%		ICU Level of Service B	
Analysis Period (min) 15			



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	7	104	115	325	188	9
Future Volume (vph)	7	104	115	325	188	9
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.874				0.994	
Flt Protected	0.997			0.987		
Satd. Flow (prot)	1495	0	0	1693	1705	0
Flt Permitted	0.997			0.987		
Satd. Flow (perm)	1495	0	0	1693	1705	0
Link Speed (mph)	45			45	45	
Link Distance (ft)	365			692	458	
Travel Time (s)	5.5			10.5	6.9	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	7	104	115	325	188	9
Shared Lane Traffic (%)						
Lane Group Flow (vph)	111	0	0	440	197	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			13	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane				Yes	Yes	
Headway Factor	1.11	1.11	1.11	1.11	1.11	1.11
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 54.2%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	8	147	12	1	8	231	395	4	8	236	8
Future Vol, veh/h	5	8	147	12	1	8	231	395	4	8	236	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	8	147	12	1	8	231	395	4	8	236	8

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1120	1117	240	1193	1119	397	244	0	0	399	0	0
Stage 1	256	256	-	859	859	-	-	-	-	-	-	-
Stage 2	864	861	-	334	260	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	184	207	799	164	207	652	1322	-	-	1160	-	-
Stage 1	749	696	-	351	373	-	-	-	-	-	-	-
Stage 2	349	372	-	680	693	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	156	169	799	111	169	652	1322	-	-	1160	-	-
Mov Cap-2 Maneuver	156	169	-	111	169	-	-	-	-	-	-	-
Stage 1	618	690	-	290	308	-	-	-	-	-	-	-
Stage 2	284	307	-	544	687	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13	29.8	3	0.3
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1322	-	-	608	166	1160	-	-
HCM Lane V/C Ratio	0.175	-	-	0.263	0.127	0.007	-	-
HCM Control Delay (s)	8.3	-	-	13	29.8	8.1	-	-
HCM Lane LOS	A	-	-	B	D	A	-	-
HCM 95th %tile Q(veh)	0.6	-	-	1.1	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	104	115	325	188	9
Future Vol, veh/h	7	104	115	325	188	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	104	115	325	188	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	748	193	197	0	-	0
Stage 1	193	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	380	849	1376	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	575	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	341	849	1376	-	-	-
Mov Cap-2 Maneuver	396	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	575	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	2.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1376	-	792	-	-
HCM Lane V/C Ratio	0.084	-	0.14	-	-
HCM Control Delay (s)	7.9	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.3	-	0.5	-	-