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March 9, 2015

Mr. Aaron Brewster
Vice President Development & Construction
Nexcore Group LLC
1621 18th Street, Suite 250
Denver, CO 80202

Re: Buck Creek Medical Building Traffic Impact Evaluation
Avon, Colorado
FHU Reference No. 115023-01

Dear Mr. Brewster:

Current planning efforts relative to the Buck Creek Planned Unit Development (PUD) in Avon, Colorado have focused on the potential for a new medical office building to be located along the north side of Nottingham Road between Swift Gulch Road and Buck Creek Road. The proposed development would consist of an approximate 45,000 square foot medical office building. Other potential future site uses could include a fire station and a police station. Preliminary planning indicates an approximate 18,000 square foot fire station and an approximate 13,500 square foot police station.

Figure 1 illustrates the current site plan concept. As shown, the medical office building would be located on the western portion of the site, adjacent to Buck Creek Road. The fire and police stations would occupy the eastern portion of the site, adjacent to Swift Gulch Road.

As proposed, there would be two accesses to the medical office building: one full-movement access onto Nottingham Road, to serve underground structured parking for staff and long-term patients; and one full-movement access onto Buck Creek Road, to serve medical office patient parking as well as primary parking for the fire and police stations. There would be no internal connection between the underground parking structure and the surface parking areas. The fire and police stations would also have full-movement access onto Swift Gulch Road, primarily for emergency vehicle use.

Two previous reports addressed the traffic impacts associated with this site:

- *Buck Creek PUD Traffic Impact Study*, Kimley-Horn and Associates, Inc., September 2008.
- *Traffic Review and Intersection Evaluation*, letter report to Mr. Justin Hildreth, P.E., Felsburg Holt & Ullevig, January 28, 2009.

Because the proposed site plan represents a change from the previous Buck Creek PUD concept, the purpose of this letter report is to provide an updated evaluation of the potential traffic impacts, with a focus on the Nottingham Road intersections at Buck Creek Road and Swift Gulch Road.

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Trip Generation

The travel demand associated with the proposed medical office building was estimated using data compiled and documented in *Trip Generation*, 9th Edition, Institute of Transportation Engineers (ITE), 2012. ITE rates were also used to estimate trips associated with the potential police station (rates for general office were utilized). The above referenced 2008 Kimley-Horn study provided estimates of the potential fire station trips based on operational information previously provided by the Eagle River Fire Department. Because ITE does not provide data on fire stations, these previous estimates have been carried through in this updated evaluation. **Table 1** summarizes the resultant trip generation potential of the current site plan concept.

Table 1. Trip Generation Analysis

Land Use	Quantity (KSF)	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Medical Office Building(1)	45.0	1,630	85	25	110	45	115	160
Police Station(2)	13.5	150	15	5	20	5	15	20
Fire Station(3)	10.0	90	10	10	20	5	10	15
	Total	**1,870**	**110**	**40**	**150**	**55**	**140**	**195**

1. ITE Land Use Code 720 Medical Office Building.
2. ITE Land Use Code 710 General Office Building (specific rates for Police Station are not available).
3. Trip Generation extracted from *Buck Creek PUD Traffic Impact Study*, Kimley-Horn and Associates, Inc., September 2008.

As indicated above, the proposed medical office building would generate about 1,630 trips on a daily basis, with about 110 trips during the AM peak hour and about 160 trips during the PM peak hour. The potential fire and police stations would bring the total site traffic to about 1,870 daily trips, including 150 AM peak hour trips and 195 PM peak hour trips.

Site Traffic Assignment

The trip distribution estimates documented in the 2008 Kimley-Horn report were modified to include site traffic impacts to Swift Gulch Road. The following distribution percentages, depicted on the attached **Figure 2**, were used to assign the above trip generation estimates to the adjacent roadways:

- 79 percent oriented to/from the southeast via Nottingham Road
- 18 percent oriented to/from the west via Nottingham Road
- 2 percent oriented to/from the east via Swift Gulch Road
- 1 percent oriented to/from the north via Buck Creek Road

Figure 2 also depicts the resultant site generated traffic assignment. As shown, the site is projected to contribute approximately 1,480 vehicles per day (VPD) to Nottingham Road southeast of the site and approximately 330 VPD to the west. Swift Gulch Road would experience site traffic of about 40 VPD, while Buck Creek Road would experience about 20 VPD in site related volumes.

Background Traffic Conditions

Background traffic represents adjacent roadway volumes that are unrelated to site development. For this analysis, buildout conditions were estimated based on an approximate 85 percent level of development along Nottingham Road using count data extracted from the 2008 Kimley-Horn report. These volumes were augmented and adjusted using recent traffic count data contained in the August 28, 2014 annual traffic count report prepared by TDA Colorado for the Town of Avon. **Figure 3** depicts the resultant long-term background traffic volumes. As shown, Nottingham Road would carry daily volumes in the range of 12,000 to 12,100 VPD. Swift Gulch Road would carry about 1,600 VPD, and Buck Creek Road would carry about 450 VPD in background traffic.

The AM and PM peak hour volumes, depicted on **Figure 3**, were used to determine the background intersection Levels of Service (LOS) using SYNCHRO, a computerized traffic analysis tool (SYNCHRO worksheets are attached). LOS is a qualitative assessment of the traffic flow characteristics described by a letter designation ranging from “A” to “F.” LOS A represents traffic conditions with essentially uninterrupted flow and minimal delay, whereas LOS F represents excessive congestion and delay. In developed areas, LOS D is typically considered to be acceptable for peak hour intersection operations.

Figure 3 also shows the LOS results for the background traffic conditions. As indicated, unsignalized operations at the Nottingham Road/Swift Gulch Road intersection would be acceptable (LOS D or better) under the existing STOP sign control. At the Nottingham Road/Buck Creek Road intersection, traffic operations would be at LOS D or better during peak times. Existing study area accesses would also operate at acceptable LOS under background conditions.

Total Traffic Conditions

The site generated traffic volumes (**Figure 2**) were added to the buildout background traffic volumes (**Figure 3**) to produce the total traffic volumes shown on **Figure 4**. As shown, total daily volumes along Nottingham Road would range from approximately 12,330 to 13,580 VPD in the vicinity of the site. Swift Gulch Road would carry about 1,640 VPD, and Buck Creek Road would carry about 470 VPD in total traffic volumes.

The total peak hour traffic volumes were used to conduct LOS analyses; the results of which are also summarized on **Figure 4**. It can be seen that the proposed site access onto Buck Creek Road would operate acceptably, at LOS A during peak times, under STOP sign control (westbound approach). The proposed site access onto Swift Gulch Road would also operate acceptably as an unsignalized intersection, at LOS A or B during the peak hours.

As indicated, unsignalized operations at Nottingham Road/Swift Gulch Road would experience delays for side-street left-turn movements (LOS E) during the PM peak hour. This condition is typical for unsignalized operations along busy roadways, and is due primarily to the relatively high through-movements projected along Nottingham Road. Note that this condition is anticipated for PM peak hour operations; the AM peak hour LOS would remain within acceptable limits. Per our January 2009 letter report, this intersection would be a candidate for a traffic signal or roundabout in the future to maintain traffic operations at acceptable levels. The roundabout alternative is also identified in the *Town of Avon Comprehensive Transportation Plan*, Felsburg Holt & Ullevig, October 2009. The planned roundabout would operate at LOS B during peak times.

At the proposed site access to Nottingham Road, AM peak hour operations would be within acceptable limits, at LOS C or better. During the PM peak hour, however, the STOP controlled site movements are projected to be at LOS E, indicating near-capacity conditions. Because of the short spacing (approximately 170 feet to Buck Creek Road and 220 feet to Swift Gulch Road) and due to the relatively low traffic volumes exiting the site, this access would not be a candidate for traffic control improvements (such as a signal or roundabout). It should be noted that any congestion associated with the projected LOS E would affect only outbound site traffic (primarily left-turns), and any resultant queuing would remain on-site. Thus, potential impacts to mainline operations along Nottingham Road would be minimal. Per the LOS analyses, the maximum probable queue length for motorists exiting the site would be only about two or three vehicles in the PM peak hour.

The intersection at Nottingham Road/Buck Creek Road would also operate within acceptable limits during the AM peak hour. During the PM peak hour, however, the southbound left-turn movements are projected to be at LOS E, indicating near-capacity conditions. As previously noted, this condition is due to the relatively heavy through-movements projected along Nottingham Road. Per our January 2009 letter report, the Nottingham Road/Buck Creek Road intersection would not be a candidate for signalization based on criteria contained in the *Manual on Uniform Traffic Control Devices (MUTCD)*, Federal Highway Administration, current edition (2009). Similar to the site access, however, any potential congestion would affect only the minor volumes on Buck Creek Road, and would not be expected to impact mainline operations. Per the LOS analyses, the maximum probable queue length for vehicles turning left onto Nottingham Road would be only two or three vehicles in the PM peak hour. Based on an average vehicle length of 25 feet, a maximum storage requirement of 75 feet is indicated, which is well within the 100 feet of left-turn storage currently provided.

Potential Mitigation Measures

As previously indicated, the proposed site access onto Swift Gulch Road, which would serve the potential future fire and police stations, would operate at acceptable LOS. However, the Town of Avon has identified a potential concern related to westbound traffic on Swift Gulch Road approaching this access. Because the proposed access would occur on a downgrade, and due to the horizontal alignment of Swift Gulch Road, the potential exists for westbound motorists to miss the curve and drive directly into the site access, particularly at night or during inclement weather. To alert approaching motorists to this potential hazard, westbound Swift Gulch Road approaching the access should be appropriately signed and delineated.

Summary and Recommendations

Current planning efforts for the Buck Creek PUD have focused on a new medical office building to be located along the north side of Nottingham Road between Swift Gulch Road and Buck Creek Road. The proposed development would consist of an approximate 45,000 square foot medical office building. Other potential future site uses could include a fire station and a police station. The medical office building would be served by two accesses: one full-movement access onto Nottingham Road (directly serving underground staff parking) and one full-movement access onto Buck Creek Road (which would also serve as primary parking for the fire and police stations). The fire and police stations would also have full-movement access onto Swift Gulch Road for emergency response vehicles.

The proposed medical office building, in conjunction with the future potential fire and police stations, would generate about 1,870 daily trips, with about 150 trips in the AM peak hour and 195 trips in the PM peak hour. Based on an analysis of the projected build out conditions, the following recommendations are made to mitigate the traffic impacts:

- Periodically monitor traffic conditions at the intersection of Nottingham Road/Swift Gulch Road and construct a roundabout when delays exceed acceptable limits. This improvement would be anticipated in the long range future, as development along Nottingham Road approaches buildout. The site generated component of traffic volumes through this intersection is only about 10 percent of the total projections.
- Install a W1-10L Curve and Access warning sign on westbound Swift Gulch Road approximately 200 feet in advance of the proposed police and fire station access.
- Install W1-8L Chevron signs through the curve along westbound Swift Gulch Road adjacent to the site.
- Maintain white edge line pavement markings along Swift Gulch Road adjacent to the site.
- Provide appropriate monument signing at the proposed Swift Gulch Road access to denote the fire and police stations.

We trust the information documented in this brief letter report will assist you in your planning efforts on this project. If you have any questions, or if we can be of further service, please call.

Sincerely,

FELSBURG HOLT & ULLEVIG

COLORADO REGISTERED
CHARLES M. BUCK
30908
03/09/2015
PROFESSIONAL ENGINEER

Charles M. Buck, P.E., PTOE
Senior Transportation Engineer

Attachments

Figure 1
Site Plan

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NORTH

LEGEND

XXX(XXX) = AM(PM) Peak Hour Traffic Volumes

XXXX = Daily Traffic Volumes

XX% = Site Trip Distribution

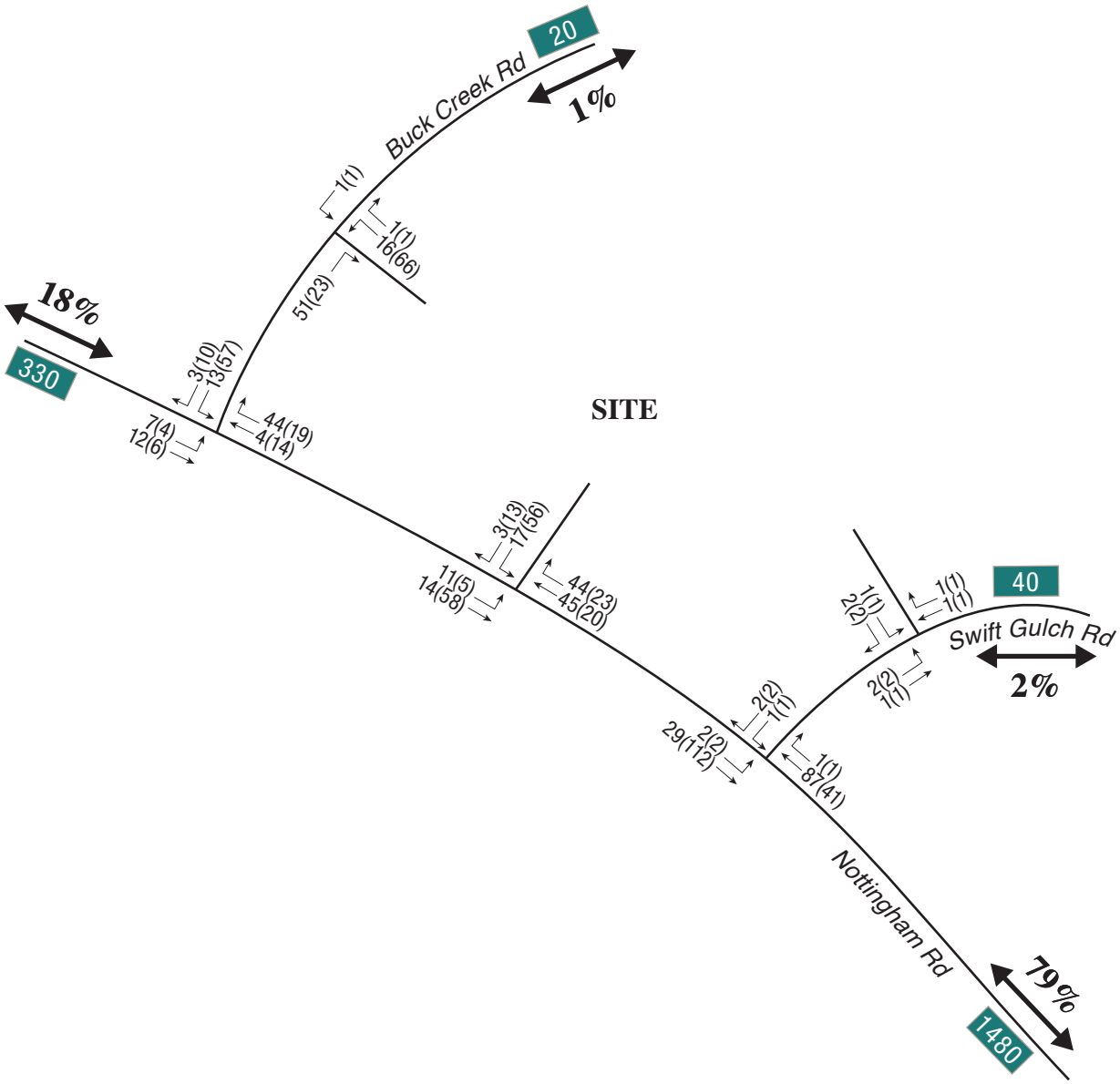

Figure 2
Site Generated Traffic Assignment

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NORTH

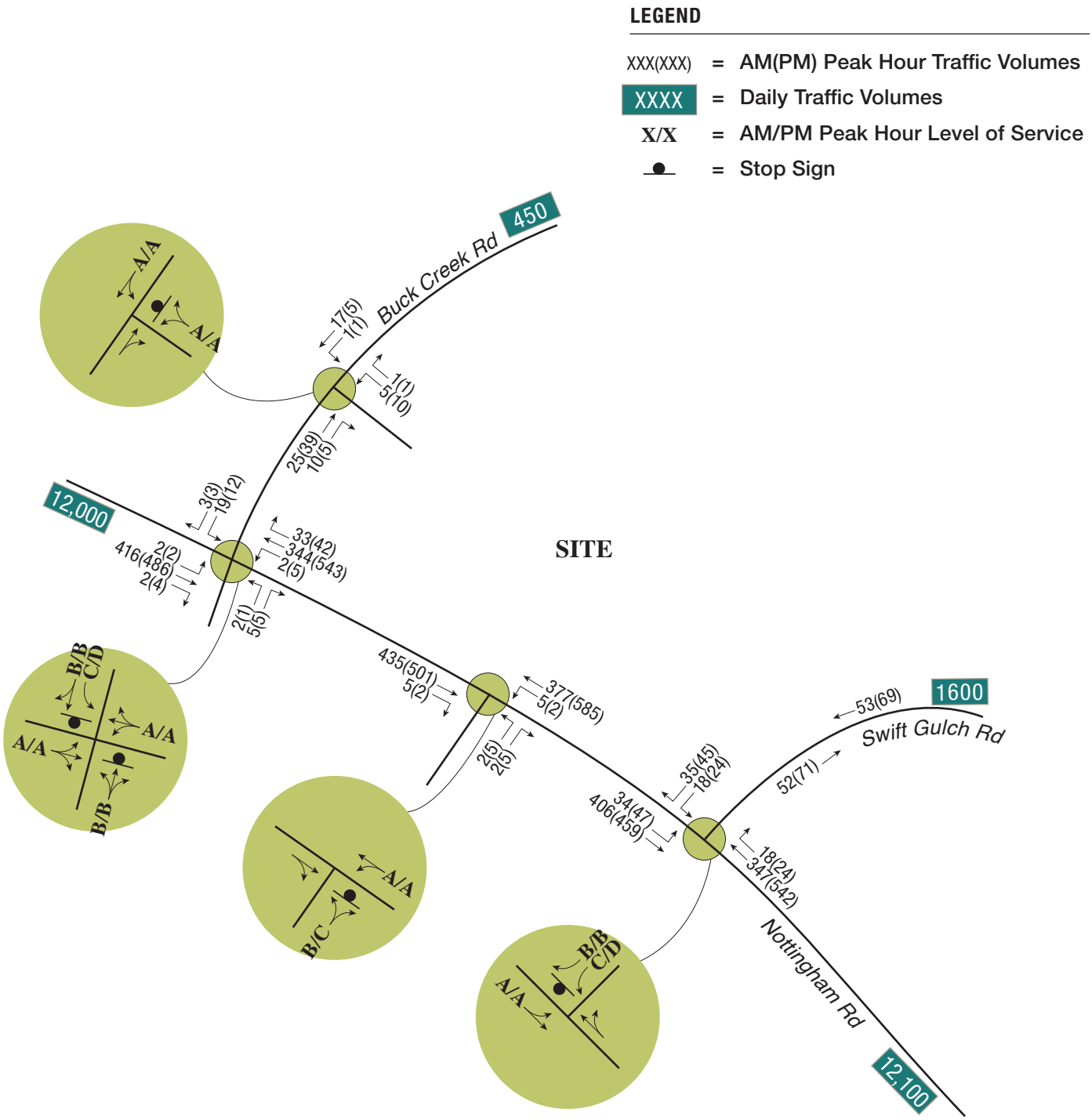

Figure 3
Background Traffic Conditions

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NORTH

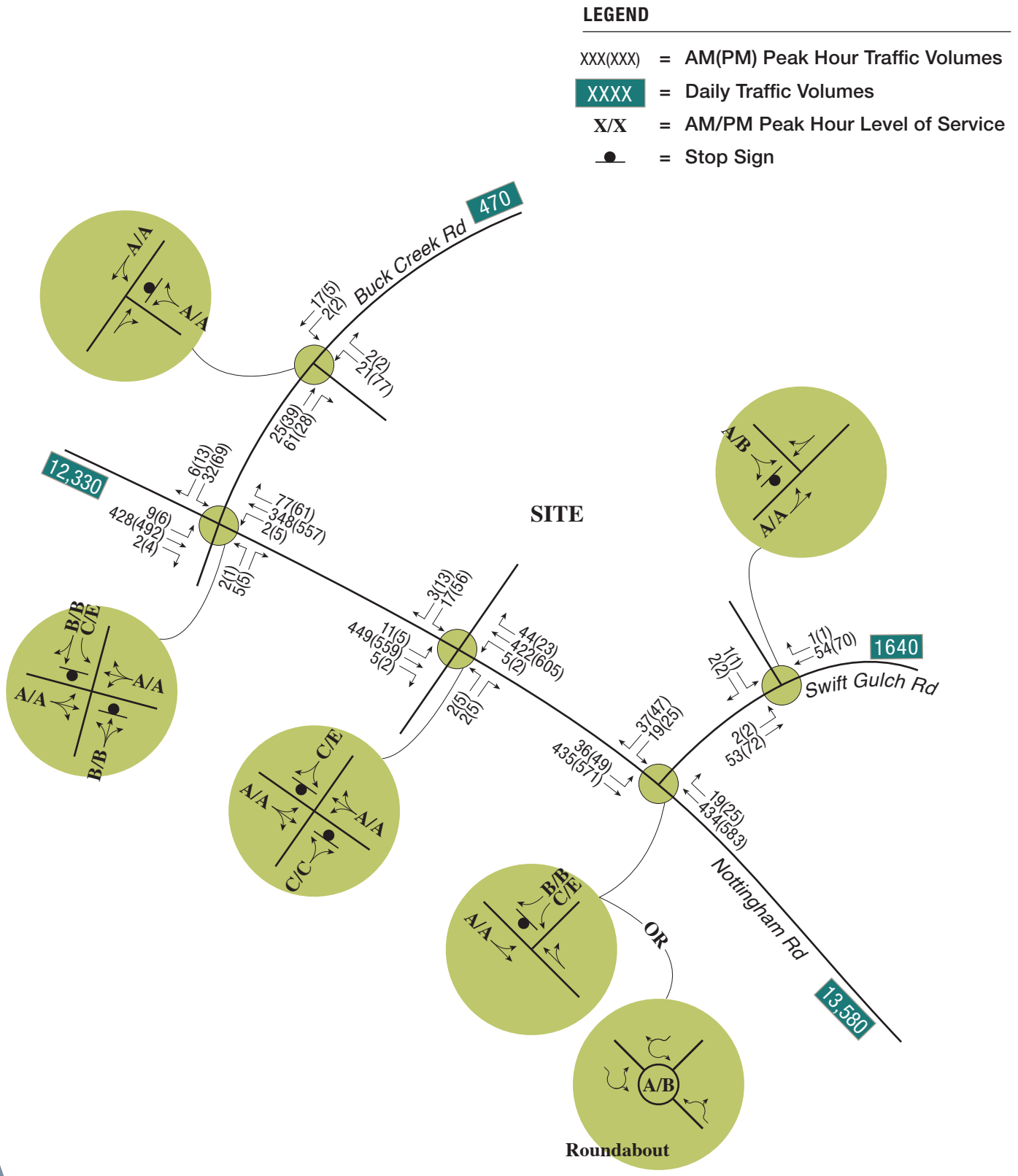

Figure 4
Total Traffic Conditions

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NORTH

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	416	2	2	344	33	2	0	5	19	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	452	2	2	374	36	2	0	5	21	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	410	0	0	454	0	0	854	872	453	856	855	392
Stage 1	-	-	-	-	-	-	458	458	-	396	396	-
Stage 2	-	-	-	-	-	-	396	414	-	460	459	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1149	-	-	1107	-	-	279	289	607	278	296	657
Stage 1	-	-	-	-	-	-	583	567	-	629	604	-
Stage 2	-	-	-	-	-	-	629	593	-	581	566	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1149	-	-	1107	-	-	277	288	607	275	295	657
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	288	-	275	295	-
Stage 1	-	-	-	-	-	-	582	566	-	628	603	-
Stage 2	-	-	-	-	-	-	625	592	-	575	565	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0	13.1	18
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	453	1149	-	-	1107	-	-	275	657
HCM Lane V/C Ratio	0.017	0.002	-	-	0.002	-	-	0.075	0.005
HCM Control Delay (s)	13.1	8.1	0	-	8.3	0	-	19.2	10.5
HCM Lane LOS	B	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2	0

Intersection	
Int Delay, s/veh	0.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	435	5	5	377	2	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	473	5	5	410	2	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	478	0	897	476
Stage 1	-	-	-	-	476	-
Stage 2	-	-	-	-	421	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1084	-	310	589
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	662	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1084	-	308	589
Mov Cap-2 Maneuver	-	-	-	-	308	-
Stage 1	-	-	-	-	625	-
Stage 2	-	-	-	-	658	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	404	-	-	1084	-
HCM Lane V/C Ratio	0.011	-	-	0.005	-
HCM Control Delay (s)	14	-	-	8.3	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	5	1	25	10	17	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	1	27	11	18	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	71	33	0	0	38	0
Stage 1	33	-	-	-	-	-
Stage 2	38	-	-	-	-	-
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	933	1041	-	-	1572	-
Stage 1	989	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	923	1041	-	-	1572	-
Mov Cap-2 Maneuver	923	-	-	-	-	-
Stage 1	989	-	-	-	-	-
Stage 2	973	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.9	0	6.9
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	941	1572	-
HCM Lane V/C Ratio	-	-	0.007	0.012	-
HCM Control Delay (s)	-	-	8.9	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	34	406	347	18	18	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	441	377	20	20	38

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	397	0	-	0	902	387
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	515	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1162	-	-	-	308	661
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	600	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1162	-	-	-	295	661
Mov Cap-2 Maneuver	-	-	-	-	295	-
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	575	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1162	-	-	-	295	661
HCM Lane V/C Ratio	0.032	-	-	-	0.066	0.058
HCM Control Delay (s)	8.2	0	-	-	18.1	10.8
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2	0.2

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	2	486	4	5	543	42	1	0	5	12	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	528	4	5	590	46	1	0	5	13	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	636	0	0	533	0	0	1159	1182	530	1162	1161	613
Stage 1	-	-	-	-	-	-	535	535	-	624	624	-
Stage 2	-	-	-	-	-	-	624	647	-	538	537	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	947	-	-	1035	-	-	173	190	549	172	195	492
Stage 1	-	-	-	-	-	-	529	524	-	473	478	-
Stage 2	-	-	-	-	-	-	473	467	-	527	523	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	947	-	-	1035	-	-	170	188	549	169	193	492
Mov Cap-2 Maneuver	-	-	-	-	-	-	170	188	-	169	193	-
Stage 1	-	-	-	-	-	-	527	522	-	472	474	-
Stage 2	-	-	-	-	-	-	466	463	-	520	521	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.1	14.1	25
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	400	947	-	-	1035	-	-	169	492
HCM Lane V/C Ratio	0.016	0.002	-	-	0.005	-	-	0.077	0.007
HCM Control Delay (s)	14.1	8.8	0	-	8.5	0	-	28.1	12.4
HCM Lane LOS	B	A	A	-	A	A	-	D	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.2	0

Intersection	
Int Delay, s/veh	0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Vol, veh/h	501	2	2	585	5	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	545	2	2	636	5	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	547	0	1186	546
Stage 1	-	-	-	-	546	-
Stage 2	-	-	-	-	640	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1022	-	208	538
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	525	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1022	-	207	538
Mov Cap-2 Maneuver	-	-	-	-	207	-
Stage 1	-	-	-	-	580	-
Stage 2	-	-	-	-	523	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	-	-	1022	-
HCM Lane V/C Ratio	0.036	-	-	0.002	-
HCM Control Delay (s)	17.5	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	2.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	10	1	39	5	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	1	42	5	5	1

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	57	45	0	0	48	0
Stage 1	45	-	-	-	-	-
Stage 2	12	-	-	-	-	-
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	950	1025	-	-	1559	-
Stage 1	977	-	-	-	-	-
Stage 2	1011	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	947	1025	-	-	1559	-
Mov Cap-2 Maneuver	947	-	-	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	1008	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.8	0	6.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	954	1559	-
HCM Lane V/C Ratio	-	-	0.013	0.003	-
HCM Control Delay (s)	-	-	8.8	7.3	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0	0	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	47	459	542	24	24	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	499	589	26	26	49

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	615	0	-	0	1203	602
Stage 1	-	-	-	-	602	-
Stage 2	-	-	-	-	601	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	965	-	-	-	204	500
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	547	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	965	-	-	-	189	500
Mov Cap-2 Maneuver	-	-	-	-	189	-
Stage 1	-	-	-	-	547	-
Stage 2	-	-	-	-	507	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	17.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	965	-	-	-	189	500
HCM Lane V/C Ratio	0.053	-	-	-	0.138	0.098
HCM Control Delay (s)	8.9	0	-	-	27.1	13
HCM Lane LOS	A	A	-	-	D	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5	0.3

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	428	2	2	348	77	2	0	5	37	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	465	2	2	378	84	2	0	5	40	0	7

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	462	0	0	467	0	0	910	952	466	913	911	420
Stage 1	-	-	-	-	-	-	486	486	-	424	424	-
Stage 2	-	-	-	-	-	-	424	466	-	489	487	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1099	-	-	1094	-	-	255	259	597	254	274	633
Stage 1	-	-	-	-	-	-	563	551	-	608	587	-
Stage 2	-	-	-	-	-	-	608	562	-	561	550	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1099	-	-	1094	-	-	250	255	597	249	270	633
Mov Cap-2 Maneuver	-	-	-	-	-	-	250	255	-	249	270	-
Stage 1	-	-	-	-	-	-	556	544	-	601	586	-
Stage 2	-	-	-	-	-	-	601	561	-	549	543	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	13.6	20.6
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	427	1099	-	-	1094	-	-	249	633
HCM Lane V/C Ratio	0.018	0.009	-	-	0.002	-	-	0.162	0.01
HCM Control Delay (s)	13.6	8.3	0	-	8.3	0	-	22.2	10.7
HCM Lane LOS	B	A	A	-	A	A	-	C	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.6	0

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	449	5	5	422	44	2	0	2	17	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	488	5	5	459	48	2	0	2	18	0	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	507	0	0	493	0	0	1010	1032	491	1009	1010	483
Stage 1	-	-	-	-	-	-	515	515	-	493	493	-
Stage 2	-	-	-	-	-	-	495	517	-	516	517	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1058	-	-	1071	-	-	218	233	578	219	240	584
Stage 1	-	-	-	-	-	-	543	535	-	558	547	-
Stage 2	-	-	-	-	-	-	556	534	-	542	534	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1058	-	-	1071	-	-	213	228	578	214	235	584
Mov Cap-2 Maneuver	-	-	-	-	-	-	213	228	-	214	235	-
Stage 1	-	-	-	-	-	-	534	526	-	549	543	-
Stage 2	-	-	-	-	-	-	549	530	-	531	525	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.1	16.7	21.8
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	311	1058	-	-	1071	-	-	236
HCM Lane V/C Ratio	0.014	0.011	-	-	0.005	-	-	0.092
HCM Control Delay (s)	16.7	8.4	0	-	8.4	0	-	21.8
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.3

Intersection	
Int Delay, s/veh	1.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	21	2	25	61	2	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	2	27	66	2	18

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	83	60	0	0	93	0
Stage 1	60	-	-	-	-	-
Stage 2	23	-	-	-	-	-
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	919	1005	-	-	1501	-
Stage 1	963	-	-	-	-	-
Stage 2	1000	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	918	1005	-	-	1501	-
Mov Cap-2 Maneuver	918	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	999	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9	0	0.8
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	925	1501	-
HCM Lane V/C Ratio	-	-	0.027	0.001	-
HCM Control Delay (s)	-	-	9	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	2	2	53	54	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	2	58	59	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	121	59	60	0	-	0
Stage 1	59	-	-	-	-	-
Stage 2	62	-	-	-	-	-
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	874	1007	1544	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	961	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	873	1007	1544	-	-	-
Mov Cap-2 Maneuver	873	-	-	-	-	-
Stage 1	964	-	-	-	-	-
Stage 2	960	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1544	-	958	-	-
HCM Lane V/C Ratio	0.001	-	0.003	-	-
HCM Control Delay (s)	7.3	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	36	435	434	19	19	37
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	39	473	472	21	21	40

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	492	0	-	0	1033	482
Stage 1	-	-	-	-	482	-
Stage 2	-	-	-	-	551	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1071	-	-	-	258	584
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	577	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1071	-	-	-	245	584
Mov Cap-2 Maneuver	-	-	-	-	245	-
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	549	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	1071	-	-	-	245	584
HCM Lane V/C Ratio	0.037	-	-	-	0.084	0.069
HCM Control Delay (s)	8.5	0	-	-	21	11.6
HCM Lane LOS	A	A	-	-	C	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3	0.2

Intersection	
Intersection Delay, s/veh	8.4
Intersection LOS	A

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	512	493	61
Demand Flow Rate, veh/h	522	502	62
Vehicles Circulating, veh/h	21	40	481
Vehicles Exiting, veh/h	522	503	61
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	8.6	8.6	6.2
Approach LOS	A	A	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	522	502	62
Cap Entry Lane, veh/h	1106	1086	698
Entry HV Adj Factor	0.980	0.981	0.984
Flow Entry, veh/h	512	493	61
Cap Entry, veh/h	1084	1065	687
V/C Ratio	0.472	0.462	0.089
Control Delay, s/veh	8.6	8.6	6.2
LOS	A	A	A
95th %tile Queue, veh	3	2	0

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	6	492	4	5	557	61	1	0	5	69	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	200	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	535	4	5	605	66	1	0	5	75	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	672	0	0	539	0	0	1199	1233	537	1202	1201	639
Stage 1	-	-	-	-	-	-	550	550	-	649	649	-
Stage 2	-	-	-	-	-	-	649	683	-	553	552	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	919	-	-	1029	-	-	162	177	544	161	185	476
Stage 1	-	-	-	-	-	-	519	516	-	458	466	-
Stage 2	-	-	-	-	-	-	458	449	-	517	515	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	919	-	-	1029	-	-	155	174	544	157	182	476
Mov Cap-2 Maneuver	-	-	-	-	-	-	155	174	-	157	182	-
Stage 1	-	-	-	-	-	-	513	510	-	453	462	-
Stage 2	-	-	-	-	-	-	441	445	-	506	509	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.1	14.5	41.8
HCM LOS			B	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	384	919	-	-	1029	-	-	157	476
HCM Lane V/C Ratio	0.017	0.007	-	-	0.005	-	-	0.478	0.03
HCM Control Delay (s)	14.5	8.9	0	-	8.5	0	-	47.3	12.8
HCM Lane LOS	B	A	A	-	A	A	-	E	B
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	2.2	0.1

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	559	2	2	605	23	5	0	5	56	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	608	2	2	658	25	5	0	5	61	0	14

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	683	0	0	610	0	0	1302	1307	609	1296	1295	670
Stage 1	-	-	-	-	-	-	620	620	-	674	674	-
Stage 2	-	-	-	-	-	-	682	687	-	622	621	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	910	-	-	969	-	-	138	160	495	139	162	457
Stage 1	-	-	-	-	-	-	476	480	-	444	454	-
Stage 2	-	-	-	-	-	-	440	447	-	474	479	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	910	-	-	969	-	-	133	158	495	136	160	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	133	158	-	136	160	-
Stage 1	-	-	-	-	-	-	472	476	-	440	453	-
Stage 2	-	-	-	-	-	-	425	446	-	465	475	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0	23.1	47.3
HCM LOS			C	E

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	210	910	-	-	969	-	-	157
HCM Lane V/C Ratio	0.052	0.006	-	-	0.002	-	-	0.478
HCM Control Delay (s)	23.1	9	0	-	8.7	0	-	47.3
HCM Lane LOS	C	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	2.2

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Vol, veh/h	77	2	39	28	2	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	84	2	42	30	2	5

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	68	58	0	0	73	0
Stage 1	58	-	-	-	-	-
Stage 2	10	-	-	-	-	-
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	937	1008	-	-	1527	-
Stage 1	965	-	-	-	-	-
Stage 2	1013	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	936	1008	-	-	1527	-
Mov Cap-2 Maneuver	936	-	-	-	-	-
Stage 1	965	-	-	-	-	-
Stage 2	1012	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.2	0	2.1
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	938	1527	-
HCM Lane V/C Ratio	-	-	0.092	0.001	-
HCM Control Delay (s)	-	-	9.2	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	1	2	2	72	70	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	2	2	78	76	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	160	77	77	0	-	0
Stage 1	77	-	-	-	-	-
Stage 2	83	-	-	-	-	-
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	831	984	1522	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	830	984	1522	-	-	-
Mov Cap-2 Maneuver	830	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	939	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	0.2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1522	-	927	-	-
HCM Lane V/C Ratio	0.001	-	0.004	-	-
HCM Control Delay (s)	7.4	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	1.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Vol, veh/h	49	571	583	25	25	47
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	200	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	53	621	634	27	27	51

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	661	0	-	0	1374	647
Stage 1	-	-	-	-	647	-
Stage 2	-	-	-	-	727	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	927	-	-	-	160	471
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	478	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	927	-	-	-	146	471
Mov Cap-2 Maneuver	-	-	-	-	146	-
Stage 1	-	-	-	-	521	-
Stage 2	-	-	-	-	436	-

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	21.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	927	-	-	-	146	471
HCM Lane V/C Ratio	0.057	-	-	-	0.186	0.108
HCM Control Delay (s)	9.1	0	-	-	35.2	13.6
HCM Lane LOS	A	A	-	-	E	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7	0.4

Intersection	
Intersection Delay, s/veh	11.8
Intersection LOS	B

Approach	EB	WB	SB
Entry Lanes	1	1	1
Conflicting Circle Lanes	1	1	1
Adj Approach Flow, veh/h	674	661	78
Demand Flow Rate, veh/h	687	675	80
Vehicles Circulating, veh/h	28	54	647
Vehicles Exiting, veh/h	699	661	82
Follow-Up Headway, s	3.186	3.186	3.186
Ped Vol Crossing Leg, #/h	0	0	0
Ped Cap Adj	1.000	1.000	1.000
Approach Delay, s/veh	11.9	12.2	7.9
Approach LOS	B	B	A

Lane	Left	Left	Left
Designated Moves	LT	TR	LR
Assumed Moves	LT	TR	LR
RT Channelized			
Lane Util	1.000	1.000	1.000
Critical Headway, s	5.193	5.193	5.193
Entry Flow, veh/h	687	675	80
Cap Entry Lane, veh/h	1099	1071	592
Entry HV Adj Factor	0.980	0.980	0.975
Flow Entry, veh/h	674	661	78
Cap Entry, veh/h	1077	1049	577
V/C Ratio	0.625	0.631	0.135
Control Delay, s/veh	11.9	12.2	7.9
LOS	B	B	A
95th %tile Queue, veh	5	5	0