Appendix D

Traffic Impact Study

TRAFFIC IMPACT STUDY

Township Owned Multi-Purpose Development

Township of Springwater

August 2018

AINLEY FILE # 117148

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EXECUTIVE SUMMARY

Key Findings

An analysis of the existing and projected background traffic volume, along with the projected traffic volume generated by the site development, revealed that Snow Valley Road at Highway 26 will continue to operate at an acceptable Level of Service 'E' by the site build out year 2028 planning horizon. Beyond that signal timing/phasing needs to be adjusted at the intersection along with an eastbound right lane by 2033, and extension of existing turn lanes by 2038.

Should Snow Valley Road be widened to 4 lanes by 2021 and Wilson Drive be widened to 4 lanes by 2031 as per the County's Transportation Master Plan, no additional improvements are required on Snow Valley Road and Wilson Drive. Signalization of the southerly intersection of Snow Valley Road with Wilson Drive will be required by 2028 regardless of the subject development.

The Township of Springwater recently completed an analysis of transportation improvements required to accommodate the proposed Midhurst Secondary Plan. Within that study, several improvements are identified for the intersection of Snow Valley Road at Highway 26 and at Wilson Drive. In general the improvements identified in this study of the the Multi-Purpose Development are also identified in the Midhurst Secondary Plan study. Figure 2 shows the existing road layout in the adjacent area and Figure 2A identifies the improvements required as identified in this study and in the Midhurst Secondary Plan study. The Midhurst study only summarized the improvements by the horizon years 2031 and 2041 but one can see the correlation.

We also note that the Midhurst study calls for improvements at the intersection of Snow Valley Road and Highway 26 but the long term (2041) projected queue length for the westbound left turn movement is approximately 115 m which is less than the 140 m offset from the intersection for the easterly entrance to the Multi-Purpose Development.

Conclusions

It is concluded that the new development will have no significant traffic impacts requiring changes to the geometric conditions of Highway 26 or Snow Valley Road or Wilson Drive should the improvements identified in the County's Transportation Master Plan be implemented.

Further, the corner clearance between the east entrance and Highway 26 on Snow Valley Road is 140 m, satisfying the 70 m TAC (Transportation Association of Canada) minimum corner clearance requirement at a signalized intersection on an undivided road. The entrance locations also meets the minimum stopping sight distance to the east and west on Snow Valley Road, based on TAC's sight line requirements.

Recommendations

To accommodate the background traffic volumes and the site traffic volumes, the following improvements are recommended:

- add a 80 m westbound left turn lane on Snow Valley Road at Wilson Drive southerly intersection and potentially add a traffic signal at the intersection by 2023 if Snow Valley Road is not widened to 4 lanes triggered by background traffic;
- add a traffic signal along with a southbound advance green phase at the southerly intersection of Snow Valley Road with Wilson Drive by 2028 triggered by background traffic;
- should Snow Valley Road not be widened to 4 lanes, add a 15 m eastbound left turn lane on Snow Valley Road at the east site access by 2028 triggered by site traffic;
- add a northbound left turn phase and an eastbound left turn phase at the intersection of Snow Valley Road with Highway 26 by 2033 triggered by background traffic;
- add a 50 m eastbound right turn lane on Snow Valley Road at Highway 26 by 2033 triggered by site traffic;
- should Snow Valley Road not be widened to 4 lanes, add a 15 m eastbound left turn lane on Snow Valley Road at the west site access by 2033 triggered by site traffic;
- should Snow Valley Road not be widened to 4 lanes, extend the 15 m eastbound left turn lane on Snow Valley Road at the east site access to 25 m by 2038 triggered by site traffic;
- should Snow Valley Road not be widened to 4 lanes, add a 15 m eastbound left turn lane on Snow Valley Road at the west site access by 2038 triggered by site traffic;
- should Wilson Drive not be widened to 4 lanes, extend the northbound right turn lane to 65 m by 2038 triggered by both background traffic and site traffic; and
- extend all exiting turn lanes at the intersection of Highway 26 with Snow Valley Road by 2038 triggered by both background traffic and site traffic.

1. INTRODUCTION

This traffic impact study has been prepared for the Township in support of a proposed recreational and institutional development located on the north side of Snow Valley Road west of Bayfield Street (Highway 26), in the Township of Springwater, County of Simcoe as illustrated in Figure 1.

As per the MTO *General Guidelines for the Preparation of Traffic Impact Studies*, the purpose of this study is to address the following:

- Current traffic conditions on Snow Valley Road, Bayfield Street and Wilson Drive;
- Development site, its trip generation, distribution and assignment;
- Future background traffic condition for each interim phase of the development, the full built-out year, 5 and 10 years after full built-out of the site;
- Future background traffic plus the site traffic condition for each interim phase of the development, the full built-out year, 5 and 10 years after full built-out of the site; and
- Traffic impacts and mitigating measures if any.

2. STUDY AREA

The land uses in the area are commercial / mixed use along Highway 26, employment / environment protection area along Snow Valley Road and Wilson Drive.

The road network to be addressed by this study consists of Snow Valley Road, Bayfield Street (Highway 26), Finlay Mill Road and Wilson Drive. Direct accesses to Snow Valley Road for the proposed development will be provided. Both Snow Valley Road (County Road 43) and Wilson Drive (County Road 53) are under the jurisdiction of the County of Simcoe. Bayfield Street (Highway 26) is a provincial highway under the jurisdiction of MTO. Finlay Mill Road is under the jurisdiction of the Township.

2.1 Existing Road Network

Through the study area, Snow Valley Road is a primary road as identified in the Town's Official Plan. The road is oriented east-west, providing one travel lane in each direction. The road has a rural cross section with partially paved shoulders, gravel shoulders and ditches on both sides. In front of the site, the alignment of Snow Valley Road is relatively straight and flat. The section of Snow Valley Road has a posted speed limit of 60 km/h. Thus a design speed of 70 km/h applies (posted speed limit + 10 km/h for lower speed roads). A centre left turn lane is on the section of Snow Valley Road between Wilson Drive. East of Wilson Drive the posted speed limit on Snow Valley Road is 80 km/h; whereas west of Wilson Drive the posted speed limit is 60 km/h.

Highway 26 is a provincial highway as identified in the Town's Official Plan. It has a semi-urban and semi-rural cross-section with a mountable curb, gutter, paved shoulder on the east side, and a gravel shoulder, ditch on the east side. The road has two lanes in each direction and a flush median. The road is relatively straight and flat. The posted speed limit on the road is 80 km/h. A 100 km/h design speed applies (posted speed limit + 20 km/h for higher speed roads).

Wilson Drive is a primary road as identified in the Town's Official Plan. The road is oriented north-south, providing one travel lane in each direction. The road has a rural cross section with partially paved shoulders, gravel shoulders and ditches on both sides. South of Snow Valley Road, the alignment of Wilson Drive is relatively straight and flat although it increases in grade further to the south. North of Snow Valley Road, Wilson Drive curves to the east and increases in grade further to the north. The section of Wilson Drive has a posted speed limit of 60 km/h. Thus a design speed of 70 km/h applies.

Finlay Mill Road is also a primary road as identified in the Town's Official Plan. The road is oriented east-west at Highway 26 and turns to the north. The road has one lane in each direction and a rural cross section with paved shoulders, gravel shoulders and ditches on both sides. A sidewalk is on the north/west side. Upon approach Highway 26, the vertical alignment of Finlay Mill Road is relatively flat. The road has a posted speed limit of 50 km/h. Thus a design speed of 60 km/h applies.

The intersection of Snow Valley Road at Highway 26 is a signalized 4-leg intersection. The intersection configuration is as follows:

- Northbound approach on Highway 26: one left turn lane, two through lanes, and one right turn lane;
- Southbound approach on Highway 26: one left turn lane, one through lane, and one through-right shared lane;
- Eastbound approach on Snow Valley Road: one left turn lane, and one through-right shared lane;
- Westbound approach on Finlay Mill Road: one left turn lane, and one through-right shared lane.

The south intersection of Snow Valley Road at Wilson Drive is a "T" intersection with stop control on Snow Valley Road. The intersection configuration is as follows:

- Northbound approach on Wilson Drive: one through lane, and one right turn lane;
- Southbound approach on Snow Valley Road: one left turn lane, and one through lane;
- Westbound approach on Snow Valley Road: one left-right shared lane.

The north intersection of Snow Valley Road at Wilson Drive is a "T" intersection with stop control on Snow Valley Road. The intersection configuration is as follows:

- Northbound approach on Snow Valley Road: one left turn lane, and one through lane;
- Southbound approach on Wilson Drive: one through-right shared lane;

- Eastbound approach on Snow Valley Road: one left-right shared lane.

Existing configurations are illustrated in Figure 2.

2.2 Future Road Network

No future road network improvement information is available from the MTO. As per the County's Transportation Master Plan dated October 2014, widening of Snow Valley Road between Highway 26 and County Road 28 to 4 lanes in a short-term (i.e. by 2021) has been recommended; whereas widening of Wilson Drive between Highway 26 and City of Barrie limit to 4 lanes by 2031 has been identified.

3. PROPOSED DEVELOPMENT

3.1 Development Site Plan

As illustrated in Figure 1, the subject development is located on the north side Snow Valley Road at approximately 170 m west of Highway 26, in the Township of Springwater, the County of Simcoe.

As per the proposed development site plan provided in Figure 3, three site access points will be provided. The east site access is on Snow Valley Road at approximately 170 metres west of Highway 26 (measured from centreline to centreline). The middle site access is on Snow Valley Road at approximately 80 m west of the east site access. The west site access is located on Snow Valley Road at approximately 100 m west of the middle site access. All site accesses are full movement site accesses.

Snow Valley Road at Highway 26 is a signalized intersection. As per the Transportation Association of Canada's *Geometric Design Guide for Canadian Roads*, the minimum corner clearance to an access is 70 m at a signalized intersection and on an undivided road. The proposed corner clearance between Highway 26 and the east site access is approximately 140 m. Thus it is sufficient.

3.2 Development Land Use & Stages

The proposed development is to consist of a 12,000 sq. ft. fire hall, a 2,500 sq. ft. County EMS building, and a 105,000 sq. ft. multi-purpose recreational complex uses building as detailed below:

Phase 1 (68,246 sq. ft.):

- single ice pad NHL size with seating, dressing room etc. gross floor area 22,275 sq. ft.;
- lobby/food services/public areas, walking/running track, multi-purpose space, double gymnasium and storage, facility management offices, storages, and mechanical space etc. gross floor area 31,894 sq. ft.; and
- library gross floor area 11,846 sq. ft.

Phase 2 (36,754 sq. ft.):

- single ice pad NHL size with seating, dressing room etc. gross floor area 22,275 sq. ft.; and
- library gross floor area 14,479 sq. ft.

It is estimated that the fire hall and County EMS building will be completed by 2019, phase 1 will be completed by 2023 and phase 2 will be completed by 2028.

3.3 Trip Generation

Trip generation rates were determined from the Institute of Transportation Engineer's *Trip Generation Manual 10th Edition*. Based on the proposed land uses and applicable ITE land use categories, the following have been employed:

- Fire hall and EMS building – trip rates correspond to "fire and rescue station" (ITE land use code 575)
- Ice pad – trip rates correspond to "ice skating rink" (ITE land use code 465)
- Walking/running track, multi-purpose space, double gymnasium etc. – trip rates correspond to "recreational community centre" (ITE land use code 495)
- Library – trip rates correspond to "library" (ITE land use code 590)

The applicable trip rates and corresponding trip estimates for the peak hours of the adjacent road are provided in Table 1. It is noted that for the fire and rescue station land use, AM peak hour trip rates are not available. It is assumed that the AM rates are 50% of the PM rates.

Table 1: SITE TRIP GENERATION ESTIMATES

Land Use		Rate/ Estimate	Unit/ Size	AM PEAK HOUR			PM PEAK HOUR		
				In	Out	Total	In	Out	Total
Fire and rescue station		rate	1000 sq ft GFA	0.07	0.17	0.24	0.14	0.34	0.48
		estimate	14.5	1	2	3	2	5	7
Phase 1	Ice pad	rate	1000 sq ft GFA	0.06	0.11	0.17	0.73	0.60	1.33
		estimate	22.275	1	3	4	17	13	30
	recreational community centre	rate	1000 sq ft GFA	1.16	0.60	1.76	1.09	1.22	2.31
		estimate	34.125	40	20	60	37	42	79

Land Use		Rate/ Estimate	Unit/ Size	AM PEAK HOUR			PM PEAK HOUR		
				In	Out	Total	In	Out	Total
	library	rate	1000 sq ft GFA	0.71	0.29	1.00	3.92	4.24	8.16
		estimate	11.846	8	3	11	46	50	96
	Sub-total		68.246	49	26	75	100	105	205
Phase 2	Ice pad	rate	1000 sq ft GFA	0.06	0.11	0.17	0.73	0.60	1.33
		estimate	22.275	1	3	4	16	14	30
	library	rate	1000 sq ft GFA	0.71	0.29	1.00	3.92	4.24	8.16
		estimate	14.479	10	4	14	57	61	118
	Sub-total		36.754	11	7	18	73	75	148
Total		estimate	119.500	61	35	96	175	185	360

In total, the development is expected to generate 96 trips in the AM peak hour and 360 trips in the PM peak hour (both inbound and outbound trips).

3.4 Trip Distribution/Assignment

The distribution of the trips to be generated by the proposed development has been developed based on the site land uses, its location in the Township, and it is in close proximity to the Midhurst developments. The following distribution is assumed:

- 30% to/from the north via Highway 26;
- 15% to/from the north via Wilson Drive;
- 15% to/from the south via Highway 26;
- 15% to/from the south via Wilson Drive;
- 15 % to/from the east via Finlay Mill Road; and
- 10% to/from the west via Snow Valley Road.

There may be site traffic travelling to/from a future Anne Street extension south of Snow Valley Road to provide some traffic relief on Highway 26 and Wilson Drive. However, given the timing of the Anne Street extension is unknown and to ensure a conservative approach, this has not been accounted for. Site generated traffic volumes were assigned to the site accesses by assuming the following:

- 100% of the fire hall, County EMS traffic would use the middle site access;

- 100% of the traffic to/from the north/south via Highway 26 and to/from the east via Finlay Mill Road would use the east site access; and
- For the traffic to/from the north/south via Wilson Drive and to/from the west via Snow Valley Road, 70% would use the east site access and 30% would use the west site access.

The resulting future 2019, 2023 and 2028 site generated traffic volumes are illustrated in Figures 4, 5 and 6 respectively.

4. TRAFFIC VOLUMES

4.1 Existing Traffic Volumes

Existing 2018 intersection turning movement traffic counts were carried out on Wednesday, July 4, 2018 at the intersection of Snow valley Road with Highway 26, Snow Valley Road with Wilson Drive southerly and northerly intersections. Traffic count data is provided in Appendix A. Given that the July count represents peak summer conditions, no seasonal variation factor has been applied.

The resulting 2018 peak hour traffic volumes are presented in Figure 7.

4.2 Background Traffic Projections

Given that full build-out and occupancy of the proposed development is assumed to occur in 2028, a 5 and 10-year horizon (2033, 2038) was addressed to consider the longer-term (5 and 10 years after full build-out of the proposed development) transportation needs.

Background traffic volumes expected for the 2019 (fire hall), 2023 (Phase 1), 2028, 2033 and 2038 horizon years have been determined from the 2018 volumes and future growth projections.

Based on the 2015 traffic volumes, 2031 and 2041 traffic projections in the Town's *Midhurst Water, Wastewater & Transportation (Phase 3 & 4) Environmental Study Report* dated June 2018, annual growth rates were calculated as illustrated in Table 2. The Environmental Study Report includes general background growth and development specific growth in the area (i.e. Midhurst developments).

Table 2: CALCULATED ANNUAL GROWTH RATES

ROAD SECTION	GROWTH RATES (%)	
	2015-2031	2031-2041
Highway 26 north of Snow Valley Rd	3.24	0.82
Highway 26 south of Snow Valley Rd	3.16	1.03

ROAD SECTION	GROWTH RATES (%)	
	2015-2031	2031-2041
Snow Valley Rd west of Highway 26	9.37	1.21
Snow Valley Rd east of Wilson Dr.	8.85	1.31
Snow Valley Rd west of Wilson Dr.	4.15	1.82
Finlay Mill Rd east of Highway 26	3.98	2.33
Wilson Dr. south of Snow Valley Rd	3.82	0.81
Wilson Dr. north of Snow Valley Rd	3.94	0.74

By applying the above growth rates, the resulting 2019, 2023, 2028, 2033 and 2038 background peak hour traffic volumes are illustrated in Figures 8 to 12 respectively.

4.3 Total Traffic Projections

Future total traffic was calculated as the site generated traffic plus the future background traffic volumes for the 2019, 2023, 2028, 2033 and 2038 horizon years. The resulting future total volumes are illustrated in Figures 13 to 17 respectively.

5. TRAFFIC ANALYSIS

5.1 Highway Capacity Manual Methodology

The Highway Capacity Manual (HCM) methodology for determining level of service (LOS), delay, and volume to capacity (v/c) ratio was applied to the study area intersections. The HCM defines six levels of service, ranging from A to F. LOS A represents the best operating conditions and LOS F the worst.

For a signalized intersection and automobile mode, LOS is characterized by control delay and/or v/c ratio of an intersection or its lane groups. Delay quantifies the increase in travel time due to traffic signal control. The v/c ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

The LOS thresholds established for the automobile mode at a signalized intersection are as follows:

	LOS by v/c Ratio	
Control Delay (s/veh)	**≤ 1.0**	**>1**
0-10	A	F

>10 – 20	B	F
>20 – 35	C	F
>35 – 55	D	F
>55 – 80	E	F
>80	F	F

It is noted that for approach-based and intersection wide assessments, LOS is defined solely by control delay in the HCM 2010 version.

On the other hand, the LOS thresholds established for the automobile mode at an unsignalized intersection are as follows:

	LOS by v/c Ratio	
Control Delay (s/veh)	**≤ 1.0**	**>1**
0-10	A	F
>10 – 15	B	F
>15 – 25	C	F
>25 – 35	D	F
>35 – 50	E	F
>50	F	F

It is noted that the LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for major street approaches or for the intersection as a whole in the HCM 2010 version.

5.2 Existing Traffic Conditions

The methodology applied was consistent with the *Highway Capacity Manual 2010* method for signalized and unsignalized intersections as employed in the software program Synchro 10. The analysis is based on the 2018 traffic volumes, the existing intersection configuration and control.

Table 3 summarizes the results of the analysis. The corresponding detailed worksheets are included in Appendix B.

Table 3: INTERSECTION OPERATIONS – EXISTING 2018 TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	16.3	B		16.4	B	
	EBL		38.3	D	0.17	38.7	D	0.22

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
	EBT-R		44.3	D	0.67	43.5	D	0.67
	WBL		38.0	D	0.65	33.6	C	0.54
	WBT-R		30.5	C	0.29	29.7	C	0.25
	NBL		12.1	B	0.07	13.5	B	0.14
	NBT		11.6	B	0.36	14.5	B	0.52
	NBR		9.6	A	0.10	11.8	B	0.24
	SBL		8.0	A	0.07	9.9	A	0.19
	SBT		9.6	A	0.37	10.0	A	0.39
	SBT-R		9.6	A	0.37	9.9	A	0.39
Snow Valley Rd & Wilson Dr. southerly	WB	stop	18.7	C	0.26	26.0	D	0.52
	SBL	free	8.2	A	0.07	8.8	A	0.05
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.1	A	0.03	8.7	A	0.15
	EB	stop	12.1	B	0.25	12.3	B	0.17

As per the analyses, an acceptable level of service D or better occurs at the intersections under the existing conditions and thus no improvements related to intersection operations are required at this time on the basis of the intersection operational analysis.

5.3 Future Background Conditions

The operational analyses at the area key intersections were repeated given the future background traffic volumes. A summary of the assessment is provided in Tables 4 to 8. As previously noted level of service (LOS) A corresponds to the best operating condition with minimal delays whereas LOS F corresponds to poor operations resulting from high intersection delays. The corresponding worksheets are provided in Appendix B.

Table 4: INTERSECTION OPERATIONS - 2019 BACKGROUND TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	16.9	B		16.9	B	
	EBL		38.3	D	0.18	38.3	D	0.23
	EBT-R		43.9	D	0.68	43.1	D	0.67
	WBL		39.0	D	0.67	33.7	C	0.56
	WBT-R		30.0	C	0.29	29.3	C	0.26
	NBL		13.0	B	0.08	14.7	B	0.16
	NBT		12.2	B	0.37	15.3	B	0.54
	NBR		10.0	B	0.10	12.3	B	0.26
	SBL		8.4	A	0.08	10.5	B	0.20
	SBT		10.1	B	0.39	10.5	B	0.40
	SBT-R		10.1	B	0.39	10.5	B	0.40
Snow Valley Rd & Wilson Dr. southerly	WB	stop	20.3	C	0.30	30.8	D	0.60
	SBL	free	8.3	A	0.08	8.9	A	0.06
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.1	A	0.04	8.8	A	0.15
	EB	stop	12.4	B	0.26	12.6	B	0.18

As per the analyses, an acceptable level of service D or better will be provided at the intersections under the 2019 background conditions and thus no improvements related to intersection operations are required at this time on the basis of the intersection operational analysis. Although widening of Snow Valley Road to 4 lanes by 2021 is recommended in the County's Transportation Master Plan, it is not included in this analysis.

Table 5: INTERSECTION OPERATIONS - 2023 BACKGROUND TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	19.4	B		19.7	B	
	EBL		36.3	D	0.22	36.6	D	0.29
	EBT-R		41.9	D	0.71	41.1	D	0.70
	WBL		44.2	D	0.76	34.2	C	0.64
	WBT-R		28.0	C	0.30	27.3	C	0.27
	NBL		17.6	B	0.14	21.3	C	0.28
	NBT		14.8	B	0.45	19.1	B	0.66
	NBR		11.8	B	0.13	14.7	B	0.32
	SBL		10.2	A	0.11	13.8	B	0.29
	SBT		12.6	B	0.43	13.2	B	0.49
	SBT-R		12.6	B	0.43	13.1	B	0.49
Snow Valley Rd & Wilson Dr. southerly	WB	stop	35.1	E	0.55	**121**	**F**	**1.08**
	SBL	free	8.7	A	0.12	9.5	A	0.09
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.3	A	0.04	9.2	A	0.19
	EB	stop	13.9	B	0.34	14.4	B	0.25

As indicated in Table 5 above, a poor level of service “F” occurs on the westbound approach of Snow Valley Road at Wilson Drive southerly intersection during the PM peak hour under the 2023 background conditions. Improvements to the intersection should be considered.

The need for a traffic signal at the intersection was reviewed. Based on the MTO signal warrant criteria and the 2023 background traffic volumes, a traffic signal is not warranted. The signal warrant analysis is provided in Appendix C. The need for a traffic signal should be determined through traffic volume monitoring. Should a westbound left turn lane be added, the delays for the westbound left and right turn

movements would be reduced to 81 and 15 seconds respectively. A westbound left turn lane is assumed for the 2028 background conditions.

The other two intersections will operate acceptably.

Table 6: INTERSECTION OPERATIONS - 2028 BACKGROUND TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	24.9	C		19.7	B	
	EBL		33.0	C	0.29	36.6	D	0.29
	EBT-R		38.8	D	0.75	41.1	D	0.70
	WBL		60.7	E	0.90	34.2	C	0.64
	WBT-R		24.5	C	0.31	27.3	C	0.27
	NBL		30.7	C	0.32	21.3	C	0.28
	NBT		20.1	C	0.59	19.1	B	0.66
	NBR		15.2	B	0.18	14.7	B	0.32
	SBL		13.9	B	0.17	13.8	B	0.29
	SBT		18.3	B	0.62	13.2	B	0.49
	SBT-R		18.3	B	0.62	13.1	B	0.49
Snow Valley Rd & Wilson Dr. southerly	WBL	stop	**238**	**F**	**1.28**	**587**	**F**	**2.08**
	WBR		11.6	B	0.08	21	C	0.49
	SBL	free	9.6	A	0.20	10.8	B	0.16
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.6	A	0.06	10.1	B	0.26
	EB	stop	17.8	C	0.47	18.6	C	0.37

As indicated in Table 6 above, a poor level of service “F” occurs on the westbound left turn lane of Snow Valley Road at Wilson Drive southerly intersection during the AM and PM peak hours under the 2028 background conditions. Improvements to the intersection should be considered.

The need for a traffic signal at the intersection was reviewed. Based on the MTO signal warrant criteria and the 2028 background traffic volumes, a traffic signal is not warranted. The signal warrant analysis is provided in Appendix C. Although a traffic signal is not warranted, given the high delay on the westbound left turn lane, a traffic signal is recommended. A traffic signal with a southbound advance green phase is assumed for the 2033 background conditions.

The other two intersections will operate acceptably.

Although widening of Wilson Drive to 4 lanes by 2031 is identified in the County's Transportation Master Plan, it is not included in the 2033 and beyond background conditions.

Table 7: INTERSECTION OPERATIONS - 2033 BACKGROUND TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	34.7	C		42.7	D	
	EBL		36.4	D	0.36	49.1	D	0.51
	EBT-R		49.3	D	0.83	68.6	E	0.88
	WBL		66.9	E	0.95	**220.1**	**F**	**1.31**
	WBT-R		23.8	C	0.30	37.2	D	0.34
	NBL		70.1	E	0.68	**86.6**	**F**	0.88
	NBT		29.0	C	0.72	28.0	C	0.78
	NBR		20.6	C	0.23	19.8	B	0.41
	SBL		20.6	C	0.27	29.2	C	0.58
	SBT		29.1	C	0.76	20.3	C	0.63
	SBT-R		29.0	C	0.76	20.4	C	0.64
Snow Valley Rd & Wilson Dr. southerly	all	signal	13.5	B		20.8	C	
	WBL		32.3	C	0.77	31.8	C	0.69
	WBR		26.1	C	0.27	40.8	D	0.83
	NBT		14.1	B	0.55	21.6	C	0.77

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
	NBR		10.7	B	0.28	13.1	B	0.38
	SBL		9.0	A	0.52	15.0	B	0.50
	SBT		7.9	A	0.50	12.6	B	0.64
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.8	A	0.07	10.8	B	0.31
	EB	stop	24.1	C	0.62	22.8	C	0.47

As indicated in Table 7 above, a poor level of service “F” occurs on the westbound left turn lane and northbound left turn lane at the intersection of Snow Valley Road with Highway 26 during the PM peak hour under the 2033 background conditions. Improvements to the intersection should be considered.

Should a northbound left turn phase and an eastbound left turn phase be added (currently there are a southbound advance green phase and a westbound advance green phase), the intersection would operate acceptably. These improvements are included in the 2038 background conditions.

The other two intersections will operate acceptably.

Table 8: INTERSECTION OPERATIONS - 2038 BACKGROUND TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	46.7	D		50.1	D	
	EBL		29.1	C	0.30	34.2	C	0.49
	EBT-R		51.8	D	0.86	55.1	E	0.86
	WBL		65.4	E	0.96	**181.6**	**F**	**1.25**
	WBT-R		29.8	C	0.40	37.5	D	0.46
	NBL		32.4	C	0.63	49.0	D	0.85
	NBT		32.7	C	0.78	41.2	D	0.94
	NBR		22.7	C	0.26	24.1	C	0.53

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
	SBL		23.8	C	0.32	36.8	D	0.69
	SBT		61.1	E	0.97	43.8	D	0.89
	SBT-R		61.2	E	0.97	44.4	D	0.90
Snow Valley Rd & Wilson Dr. southerly	all	signal	13.9	B		22.9	C	
	WBL		32.1	C	0.77	31.9	C	0.70
	WBR		25.8	C	0.26	42.3	D	0.85
	NBT		14.7	B	0.57	25.4	C	0.83
	NBR		11.1	B	0.30	14.3	B	0.42
	SBL		9.7	A	0.54	18.0	B	0.58
	SBT		8.2	A	0.51	14.0	B	0.68
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.8	A	0.08	11.2	B	0.35
	EB	stop	26.3	D	0.66	28.1	D	0.56

As indicated in Table 8 above, a poor level of service “F” occurs on the westbound left turn lane at the intersection of Snow Valley Road with Highway 26 during the PM peak hour under the 2038 background conditions. Improvements to the intersection should be considered. Should an eastbound right turn lane be added, the intersection would operate acceptably.

The other two intersections will operate acceptably.

5.4 Future Background Conditions plus Site Traffic

The operations of the study area intersections have been investigated based on the 2019, 2023, 2028, 2033 and 2038 future total volumes. Stop control was assumed on the site accesses. The results of the operational assessment are provided in Tables 9 to 13 whereas detailed worksheets are provided in Appendix B.

The following improvements triggered by the background traffic volumes have been assumed:

- add a westbound left turn lane on Snow Valley Road at Wilson Drive southerly intersection and potentially add a traffic signal at the intersection by 2023 if Snow

Valley Road is not widened to 4 lanes;

- add a traffic signal along with a southbound advance green phase at the southerly intersection of Snow Valley Road with Wilson Drive by 2028;
- add a northbound left turn phase and an eastbound left turn phase at the intersection of Snow Valley Road with Highway 26 by 2033; and
- add an eastbound right turn lane on Snow Valley Road at Highway 26 by 2038.

Table 9: INTERSECTION OPERATIONS - 2019 TOTAL TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	16.9	B		17.0	B	
	EBL		38.3	D	0.18	38.2	D	0.24
	EBT-R		43.8	D	0.68	43.0	D	0.67
	WBL		38.9	D	0.67	33.6	C	0.56
	WBT-R		30.0	C	0.29	29.2	C	0.26
	NBL		13.0	B	0.08	14.8	B	0.16
	NBT		12.2	B	0.37	15.4	B	0.54
	NBR		10.1	B	0.10	12.4	B	0.26
	SBL		8.4	A	0.08	10.6	B	0.20
	SBT		10.1	B	0.39	10.6	B	0.41
	SBT-R		10.1	B	0.39	10.5	B	0.41
Snow Valley Rd & Wilson Dr. southerly	WB	stop	20.3	C	0.30	31.3	D	0.61
	SBL	free	8.3	A	0.08	8.9	A	0.06
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.1	A	0.04	8.8	A	0.15
	EB	stop	12.4	B	0.26	12.6	B	0.18
Snow Valley Rd & Middle site access	EBL	free	-	A	0	7.6	A	0.00
	SB	stop	9.6	A	0	10.1	B	0.01

Given the minimal increase in site traffic volumes, an acceptable level of service D or better will be provided at the intersections under the 2019 total conditions and thus no improvements related to intersection operations are required at this time on the basis of the intersection operational analysis.

Table 10: INTERSECTION OPERATIONS - 2023 TOTAL TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	19.8	B		20.8	B	
	EBL		36.1	D	0.25	37.1	D	0.41
	EBT-R		41.4	D	0.71	40.1	D	0.70
	WBL		43.2	D	0.76	32.8	C	0.63
	WBT-R		27.6	C	0.31	26.6	C	0.29
	NBL		19.1	B	0.18	25.3	C	0.36
	NBT		15.2	B	0.46	20.2	C	0.67
	NBR		12.1	B	0.13	15.5	B	0.33
	SBL		10.5	A	0.11	14.6	B	0.29
	SBT		13.2	B	0.49	14.4	B	0.52
	SBT-R		13.2	B	0.49	14.4	B	0.52
Snow Valley Rd & Wilson Dr. southerly	WBL	stop	42.2	E	0.55	**109.7**	**F**	0.93
	WBR		10.8	B	0.06	14.9	B	0.32
	SBL	free	8.8	A	0.13	9.6	A	0.12
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.3	A	0.05	9.4	A	0.21
	EB	stop	14.2	B	0.35	14.9	B	0.28
Snow Valley Rd & East site access	EBL	free	7.6	A	0.01	7.9	A	0.02
	SB	stop	10.9	B	0.04	13.3	B	0.19
Snow Valley	EBL	free	7.6	A	0.01	7.8	A	0.01

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Rd & West site access	SB	stop	9.1	A	0.00	9.7	A	0.02
Snow Valley Rd & Middle site access	EBL	free	-	A	0	7.8	A	0.00
	SB	stop	10.1	B	0.00	11.3	B	0.01

Despite the increase in site traffic volumes, all intersections will operate acceptably except for the southerly intersection of Snow Valley Road at Wilson Drive where a poor level of service occurs on the westbound left turn lane during the PM peak hour. Improvements to the intersection should be considered.

The need for a traffic signal at the intersection was reviewed. Based on the MTO signal warrant criteria and the 2023 total traffic volumes, a traffic signal is not warranted. The signal warrant analysis is provided in Appendix C. The need for a traffic signal should be determined through traffic volume monitoring.

Table 11: INTERSECTION OPERATIONS - 2028 TOTAL TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	25.6	C		31.8	C	
	EBL		32.8	C	0.32	46.7	D	0.57
	EBT-R		38.3	D	0.75	58.3	E	0.84
	WBL		59.3	E	0.90	67.8	E	0.88
	WBT-R		24.0	C	0.31	32.1	C	0.31
	NBL		34.8	C	0.39	64.4	E	0.75
	NBT		20.8	C	0.60	27.3	C	0.74
	NBR		15.7	B	0.18	20.1	C	0.37
	SBL		14.4	B	0.17	22.9	C	0.45
	SBT		19.5	B	0.64	20.9	C	0.62
	SBT-R		19.4	B	0.64	20.9	C	0.62
Snow Valley	all	signal	11.4	B		18.7	C	

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Rd & Wilson Dr. southerly	WBL		32.5	C	0.71	28.4	C	0.63
	WBR		27.7	C	0.28	35.7	D	0.81
	NBT		10.9	B	0.45	19.6	B	0.73
	NBR		8.5	A	0.21	12.6	B	0.35
	SBL		6.6	A	0.38	13.0	B	0.48
	SBT		6.3	A	0.42	11.3	B	0.59
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.6	A	0.06	10.4	B	0.29
	EB	stop	18.4	C	0.49	20.8	C	0.43
Snow Valley Rd & East site access	EBL	free	7.8	A	0.01	8.7	A	0.05
	SB	stop	12.4	B	0.06	23.1	C	0.47
Snow Valley Rd & West site access	EBL	free	7.7	A	0.01	8.1	A	0.02
	SB	stop	9.5	A	0.01	10.6	B	0.04
Snow Valley Rd & Middle site access	EBL	free	0	A	0	8.1	A	0.00
	SB	stop	11.1	B	0.00	13.5	B	0.01

Despite the increase in site traffic volumes, all intersections will operate acceptably under the 2028 total traffic conditions. As such, improvements to the area road system are not required on the basis of the intersection operational analysis.

Table 12: INTERSECTION OPERATIONS - 2033 TOTAL TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	38.7	D		51.9	D	
	EBL		29.9	C	0.33	38.0	D	0.60
	EBT-R		59.9	D	0.85	57.6	E	0.88
	WBL		64.1	E	0.93	**111.7**	**F**	**1.06**

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
	WBT-R		32.0	C	0.41	34.7	C	0.42
	NBL		27.5	C	0.56	71.5	E	0.92
	NBT		27.8	C	0.69	42.1	D	0.94
	NBR		20.2	C	0.22	24.8	C	0.50
	SBL		20.6	C	0.25	33.0	C	0.62
	SBT		44.0	D	0.88	58.8	E	0.96
	SBT-R		44.0	D	0.88	60.7	E	0.97
Snow Valley Rd & Wilson Dr. southerly	all	signal	14.0	B		24.9	C	
	WBL		32.0	C	0.77	31.0	C	0.69
	WBR		26.1	C	0.30	45.4	D	0.87
	NBT		14.9	B	0.57	28.2	C	0.85
	NBR		11.3	B	0.30	16.3	B	0.46
	SBL		9.7	A	0.55	22.6	C	0.68
	SBT		8.1	A	0.50	14.5	B	0.67
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.9	A	0.08	11.2	B	0.34
	EB	stop	25.4	D	0.64	26.3	D	0.54
Snow Valley Rd & East site access	EBL	free	8.0	A	0.02	8.6	A	0.05
	SB	stop	14.1	B	0.07	32.3	D	0.57
Snow Valley Rd & West site access	EBL	free	7.9	A	0.01	8.3	A	0.02
	SB	stop	9.9	A	0.01	11.3	B	0.04
Snow Valley Rd & Middle site access	EBL	free	0	A	0	8.3	A	0.00
	SB	stop	12.2	B	0.00	15.4	C	0.02

As indicated in Table 12 above, a poor level of service "F" occurs on the westbound left turn lane at the intersection of Snow Valley Road with Highway 26 during the PM peak hour under the 2038 total traffic conditions. Improvements to the intersection should be considered. Should an eastbound right turn lane be added, the intersection would operate acceptably. An eastbound right turn lane a long with an eastbound right turn overlap phase (overlapping with the northbound left turn phase) has assumed for the 2038 total traffic conditions.

The other intersections will operate acceptably.

Table 13: INTERSECTION OPERATIONS - 2038 TOTAL TRAFFIC VOLUMES

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
Snow Valley Rd & Hwy 26	all	signal	33.2	C		38.0	D	
	EBL		39.7	D	0.48	57.7	E	0.82
	EBT		44.1	D	0.38	45.3	D	0.57
	EBR		54.8	D	0.82	38.7	D	0.57
	WBL		64.5	E	0.90	70.1	E	0.91
	WBT-R		43.0	D	0.59	47.6	D	0.72
	NBL		23.4	C	0.52	49.0	D	0.87
	NBT		22.2	C	0.61	30.0	C	0.86
	NBR		16.4	B	0.20	20.1	C	0.49
	SBL		16.9	B	0.24	31.0	C	0.63
	SBT		30.9	C	0.77	38.4	D	0.87
	SBT-R		30.9	C	0.78	39.4	D	0.88
Snow Valley Rd & Wilson Dr. southerly	all	signal	14.4	B		28.3	C	
	WBL		31.8	C	0.77	38.1	D	0.74
	WBR		25.8	C	0.30	63.1	E	0.93
	NBT		15.5	B	0.58	27.8	C	0.83

INTERSECTION		CONTROL	AM PEAK HOUR			PM PEAK HOUR		
			Delay(s)	LOS	v/c	Delay(s)	LOS	v/c
	NBR		11.8	B	0.32	16.6	B	0.46
	SBL		10.5	B	0.58	25.9	C	0.72
	SBT		8.4	A	0.51	14.9	B	0.68
Snow Valley Rd & Wilson Dr. northerly	NBL	free	8.9	A	0.08	11.7	B	0.38
	EB	stop	28.0	D	0.68	34.6	D	0.65
Snow Valley Rd & East site access	EBL	free	8.0	A	0.02	8.7	A	0.05
	SB	stop	14.5	B	0.07	37.9	E	0.62
Snow Valley Rd & West site access	EBL	free	7.9	A	0.01	8.4	A	0.02
	SB	stop	10.0	B	0.01	11.5	B	0.04
Snow Valley Rd & Middle site access	EBL	free	0	A	0	9.2	A	0.00
	SB	stop	12.5	B	0.00	18.9	C	0.02

As indicated in Table 13, acceptable levels of service (LOS E or better) will be provided at all intersections with a delay of 38 seconds or less at the unsignalized intersections and 70 seconds or less at the signalized intersections. As such, improvements to the area road system are not required on the basis of the intersection operational analysis.

5.5 Turn Lane Requirements

The need for a left or right turn lane was reviewed at the site access intersections. If Snow Valley Road is to widened to 4 lanes by 2021, left turn vehicles turning onto the site accesses can use the westbound inside lane on Snow Valley Road to wait for a gap to make the turn. In this case no eastbound left turn lanes are required. Similarly, no westbound right turn lanes are required. Otherwise, a 15 m eastbound left turn lane on Snow Valley Road at the east site access is warranted by 2028. This left turn lane will increase to 25 m by 2038. In addition, a 15 m eastbound left turn lane on Snow Valley Road at the west site access is warranted by 2033.

5.6 Queue Length Analysis

The 95th percentile queue lengths were reviewed for the 2038 total conditions. The 95th percentile queues averaged from five SimTraffic runs are presented in Table 14. Each SimTraffic run was for duration of 60 minute with 15 minutes of seeding time.

Table 14: 2038 95th PERCENTILE QUEUE LENGTHS & STORAGE LENGTHS

INTERSECTION	TURN LANE	95th PERCENTILE QUEUE (m)		STORAGE LANE LENGTH (m)	
		AM	PM	EX./PROP.	RECOMMENDED
Snow Valley Rd & Hwy 26	EBL	52.5	84.2	70	85
	EBT	54.2	85.7	140	As proposed
	EBR	47.9	48.7	add	50
	WBL	76.6	76.3	35	75
	NBL	33.3	127.5	80	130
	NBR	18.6	133.5	70	135
	SBL	42.6	137.4	80	140
Snow Valley Rd & Wilson Dr. southerly	WBL	53.8	81.0	add	80
	NBR	58.1	65.3	20	65
	SBL	48.8	53.5	190 (2-way)	As existing
	SBT	73.2	161.8	190	As existing
Snow Valley Rd & Wilson Dr. northerly	NBL	18.4	38.1	190 (2-way)	As existing
	NBT	2.6	42.6	190	As existing
Snow Valley Rd & East site access	SB	13.1	31.6	>30	As proposed
Snow Valley Rd & West site access	SB	5.2	11.7	>15	As proposed

INTERSECTION	TURN LANE	95th PERCENTILE QUEUE (m)		STORAGE LANE LENGTH (m)	
		AM	PM	EX./PROP.	RECOMMENDED
Snow Valley Rd & Middle site access	SB	4.1	9.1	>15	As proposed

As indicated in Table 14, all proposed site access throat lengths and the existing centre left turn lane between the northerly and southerly intersections of Snow Valley Road with Wilson Drive can accommodate future 2038 queue lengths 95 percent of the time. All the existing turn lanes at the intersection of Snow Valley Road with Highway 26 and the northbound right turn lane on Wilson Drive at Snow Valley Road southerly intersection need to be extended to accommodate the 2038 95th queue lengths.

5.7 Sight Line Review

As evident in Google Maps, the alignments of Snow Valley Road through the study area are relatively straight and flat.

Based on TAC geometric design standards, the minimum stopping sight distances for design speeds of 70 km/h is 110 metres. This requirement provides sufficient distance for an approaching vehicle to observe a stationary hazard in the road (i.e. a vehicle stopped at an intersection waiting to complete a turn) and bring their vehicle to a complete stop prior to the hazard.

The available sight lines along Snow Valley Road as determined at the east site access are more than 400 m to the west; to the east the intersection of Highway 26 is visible (140 m).

Similarly, sight lines along Snow Valley Road as determined at the middle and the west site accesses are more than 300 m to the west (limited by a horizontal curve); to the east the intersection of Highway 26 is visible (more than 220 m). Therefore, sightlines are in excess of 110 metres, the minimum TAC sight distance requirements. As such, adequate sight lines are provided in both directions to ensure safe operations for vehicles turning to Snow Valley Road from the site accesses.

6. CONCLUSIONS AND RECOMMENDATIONS

Based on the assessment, it was estimated that the site will generate 96 and 360 trips during the AM and PM peak hour respectively (both inbound and outbound trips). For the purpose of this study, it is anticipated that the fire hall and County EMS building will be completed by 2019, phase 1 will be completed by 2023 and phase 2 will be completed by 2028.

To accommodate the background traffic volumes and the site traffic volumes, the following improvements are recommended:

- add a 80 m westbound left turn lane on Snow Valley Road at Wilson Drive southerly intersection and potentially add a traffic signal at the intersection by 2023 if Snow Valley Road is not widened to 4 lanes triggered by background traffic;
- add a traffic signal along with a southbound advance green phase at the southerly intersection of Snow Valley Road with Wilson Drive by 2028 triggered by background traffic;
- should Snow Valley Road not be widened to 4 lanes, add a 15 m eastbound left turn lane on Snow Valley Road at the east site access by 2028 triggered by site traffic;
- add a northbound left turn phase and an eastbound left turn phase at the intersection of Snow Valley Road with Highway 26 by 2033 triggered by background traffic;
- add a 50 m eastbound right turn lane on Snow Valley Road at Highway 26 by 2033 triggered by site traffic;
- should Snow Valley Road not be widened to 4 lanes, add a 15 m eastbound left turn lane on Snow Valley Road at the west site access by 2033 triggered by site traffic;
- should Snow Valley Road not be widened to 4 lanes, extend the 15 m eastbound left turn lane on Snow Valley Road at the east site access to 25 m by 2038 triggered by site traffic;
- should Snow Valley Road not be widened to 4 lanes, add a 15 m eastbound left turn lane on Snow Valley Road at the west site access by 2038 triggered by site traffic;
- should Wilson Drive not be widened to 4 lanes, extend the northbound right turn lane to 65 m by 2038 triggered by both background traffic and site traffic; and
- extend all exiting turn lanes at the intersection of Highway 26 with Snow Valley Road by 2038 triggered by both background traffic and site traffic.

Site locations were reviewed. The corner clearance between the site access and Highway 26 (140 m) exceeds the 70 m minimum corner clearance requirement at a signalized intersection on an undivided road.

Sightlines were reviewed on Snow Valley Road at the site accesses. Acceptable sightlines are provided at the locations.

We trust that the above meets with your purpose. Should you have any questions, please do not hesitate to contact the undersigned.

Yours truly,

AINLEY & ASSOCIATES LIMITED

Reported by:

Lilly Chen

Lilly Chen, P. Eng.

Senior Transportation Engineer

Reviewed by:

S. Fournier

Steve Fournier, P. Eng.

Senior Engineer

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Source: Google Maps

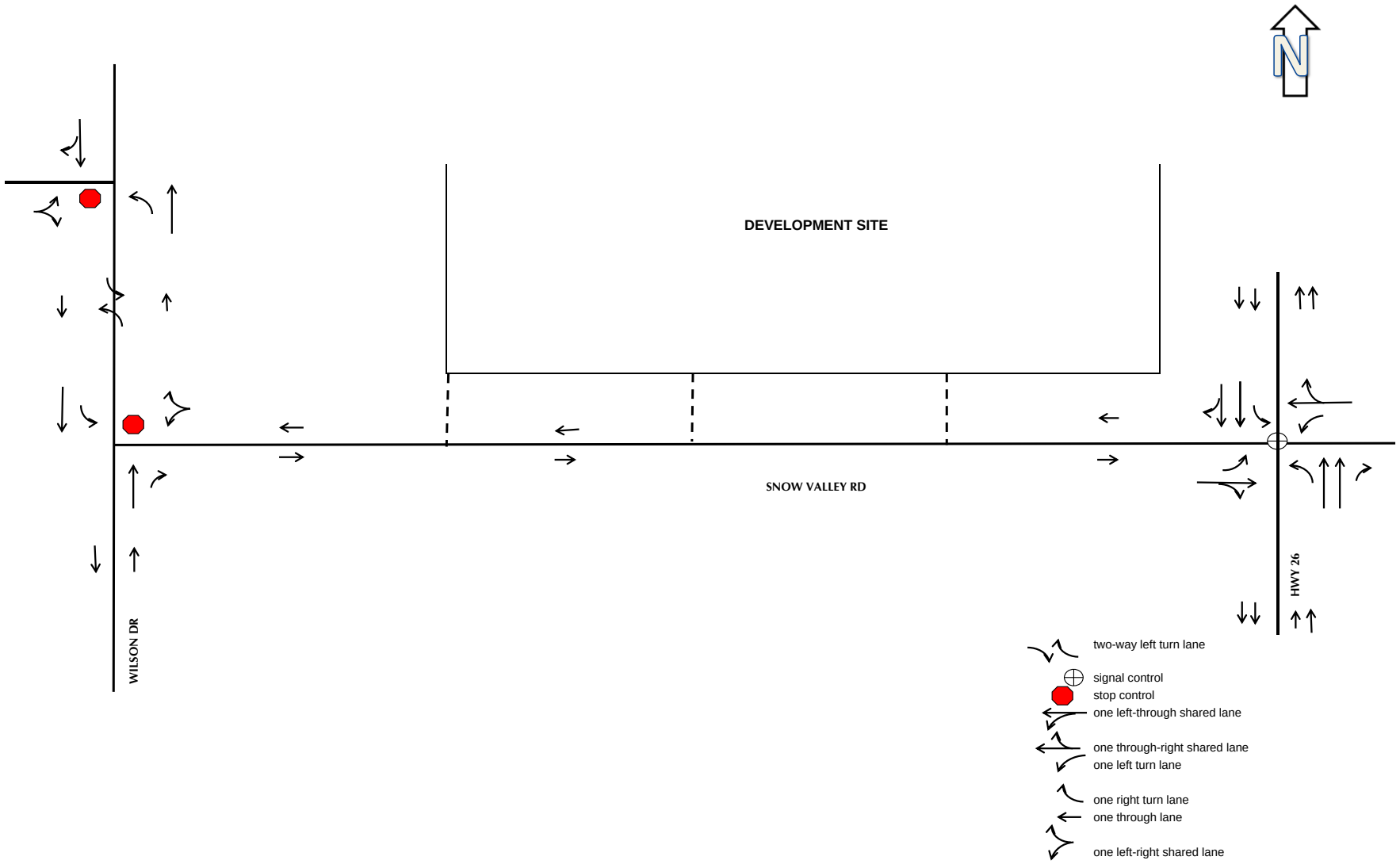


Figure 2

Existing Configurations

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley GROUP CONSULTING ENGINEERS PLANNERS

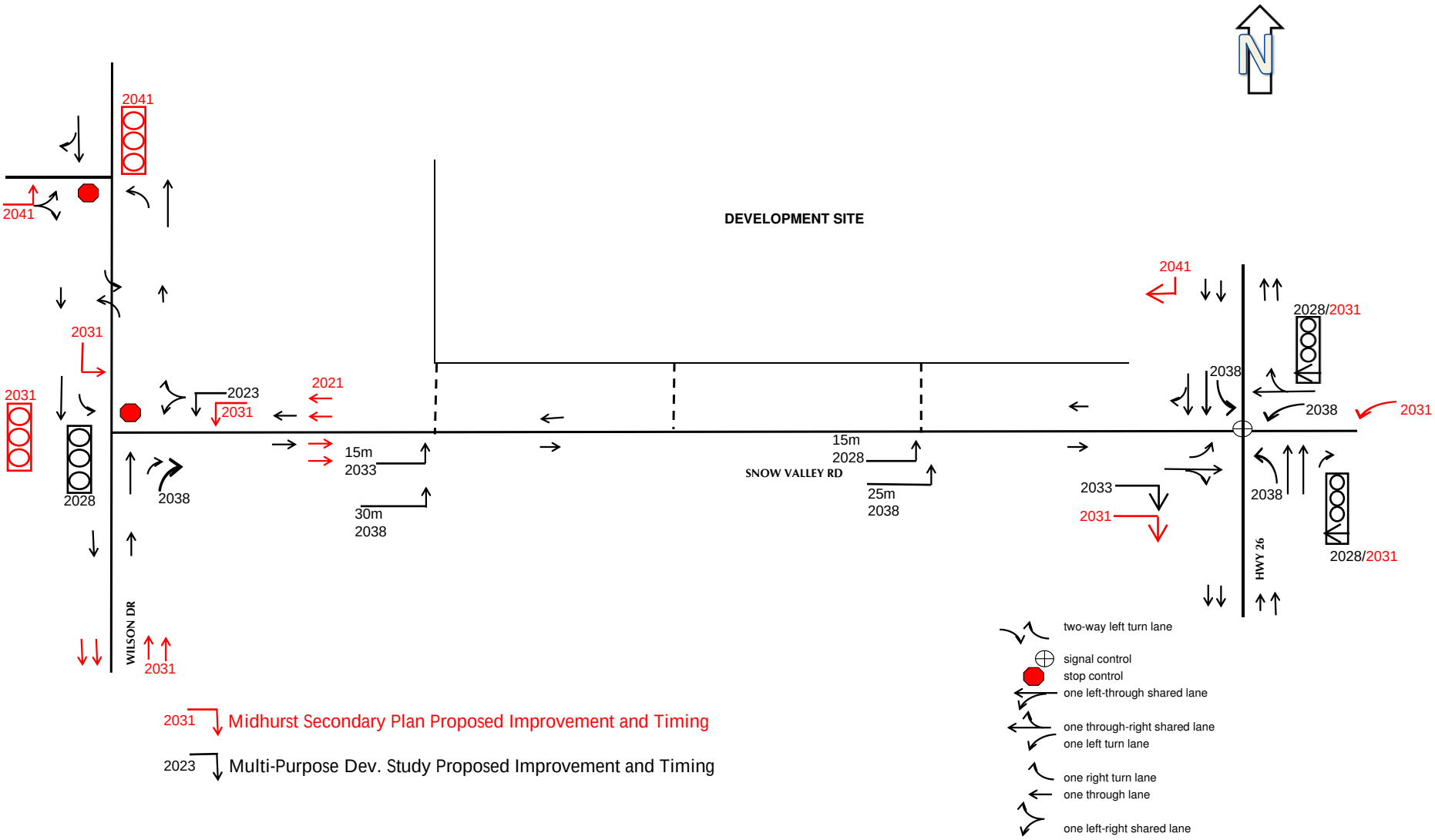
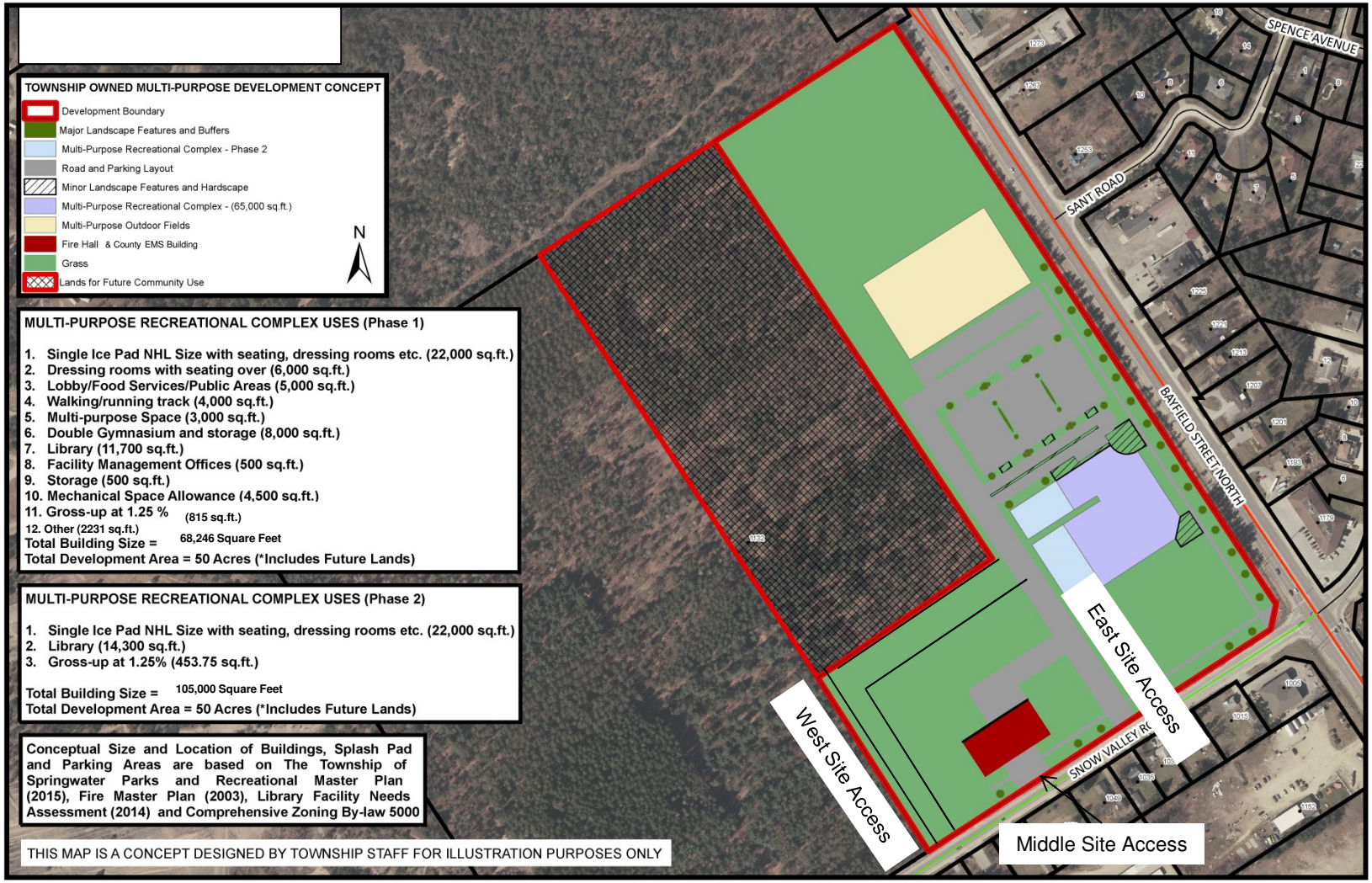


Figure 2A
Proposed Configurations/Improvements
Township Owned Multi-Purpose Development Traffic Imapct Study
Township of Springwater

Tatham Engineering Limited



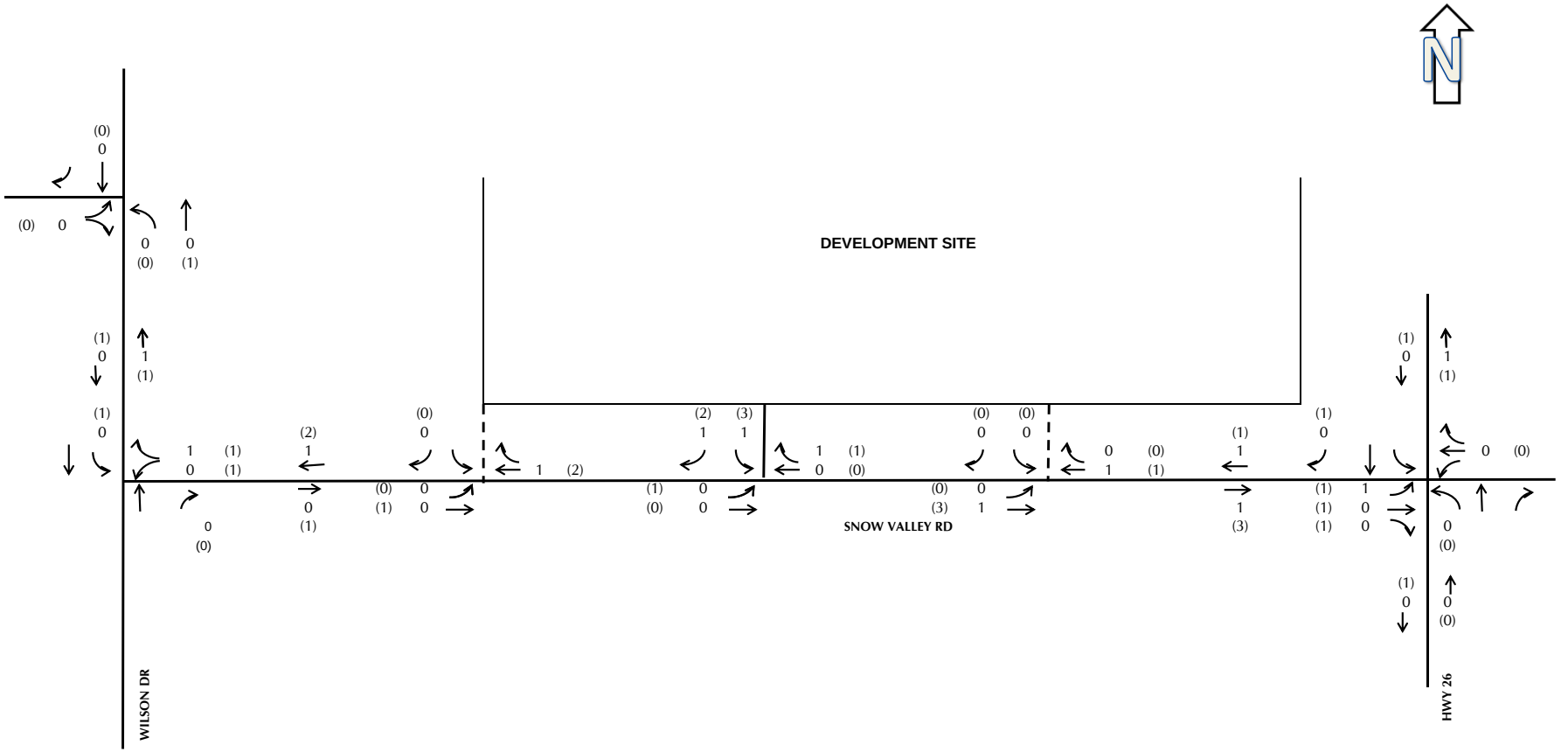
Source: Township of Springwater

Ainley GROUP CONSULTING ENGINEERS PLANNERS

TOWNSHIP OF SPRINGWATER

MULTI-PURPOSE DEVELOPMENT TRAFFIC IMPACT STUDY

FIGURE 3 – SITE CONCEPT PLAN



100 (100) AM (PM) Peak Hour

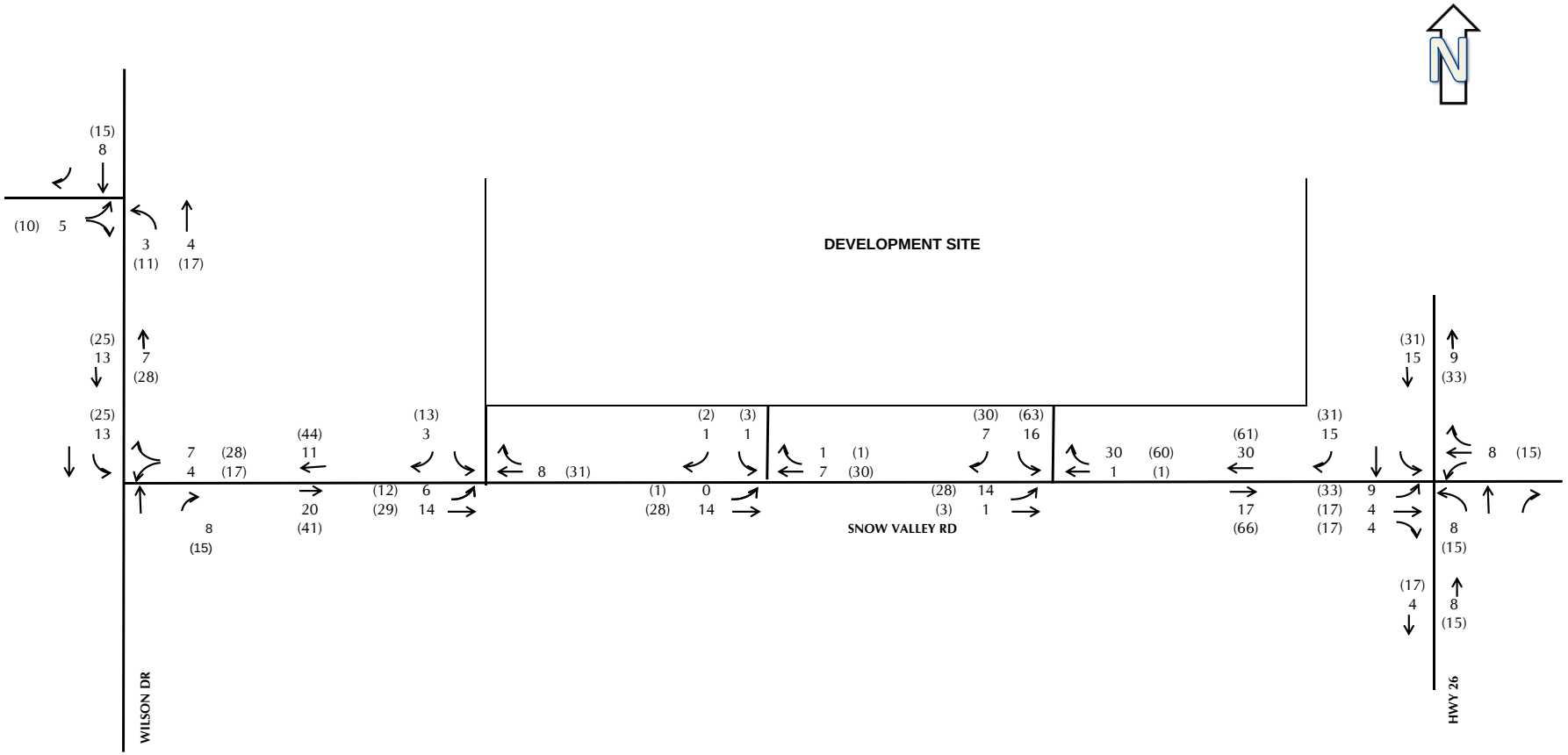
Figure 4

2019 Site Generated Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

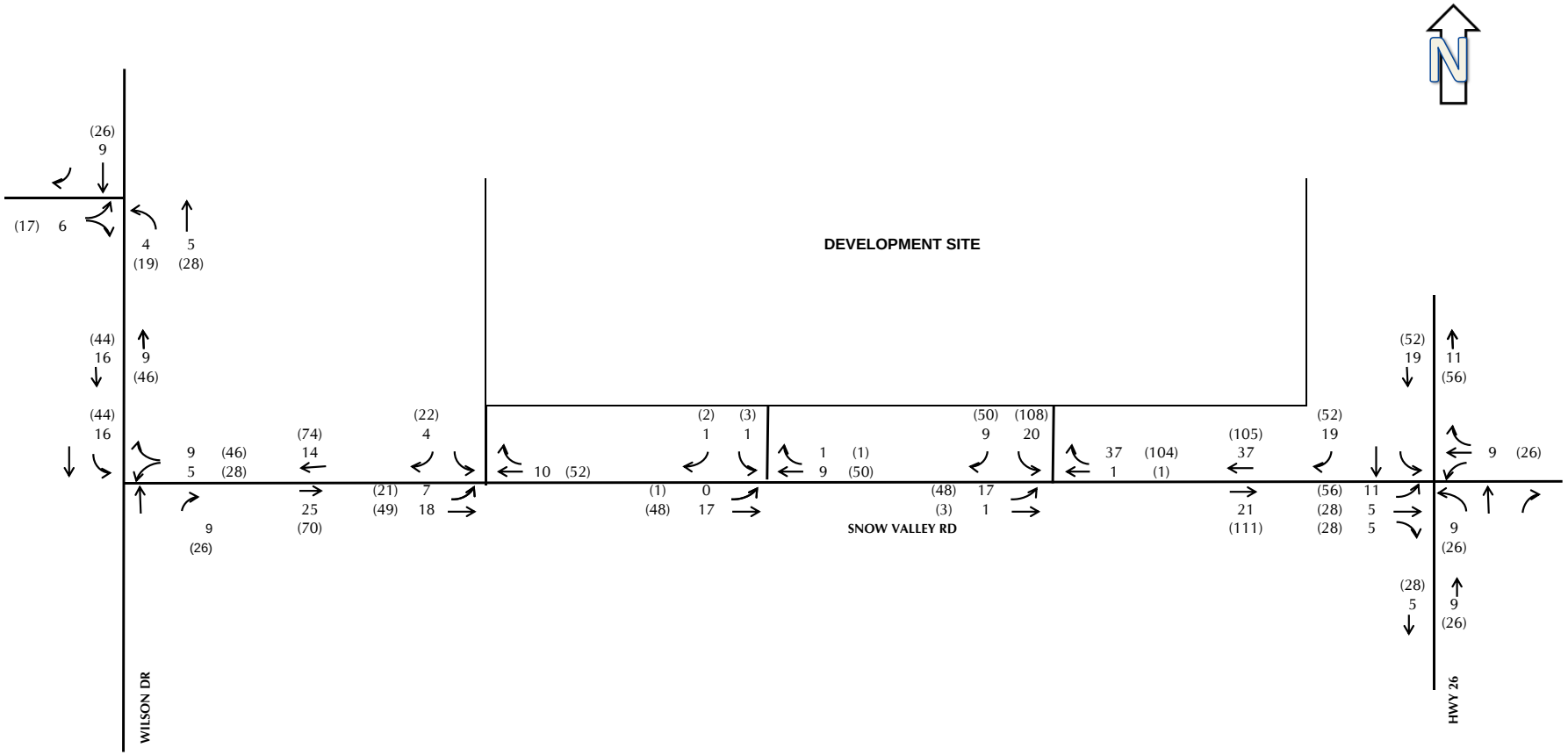
Figure 5

2023 Site Generated Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

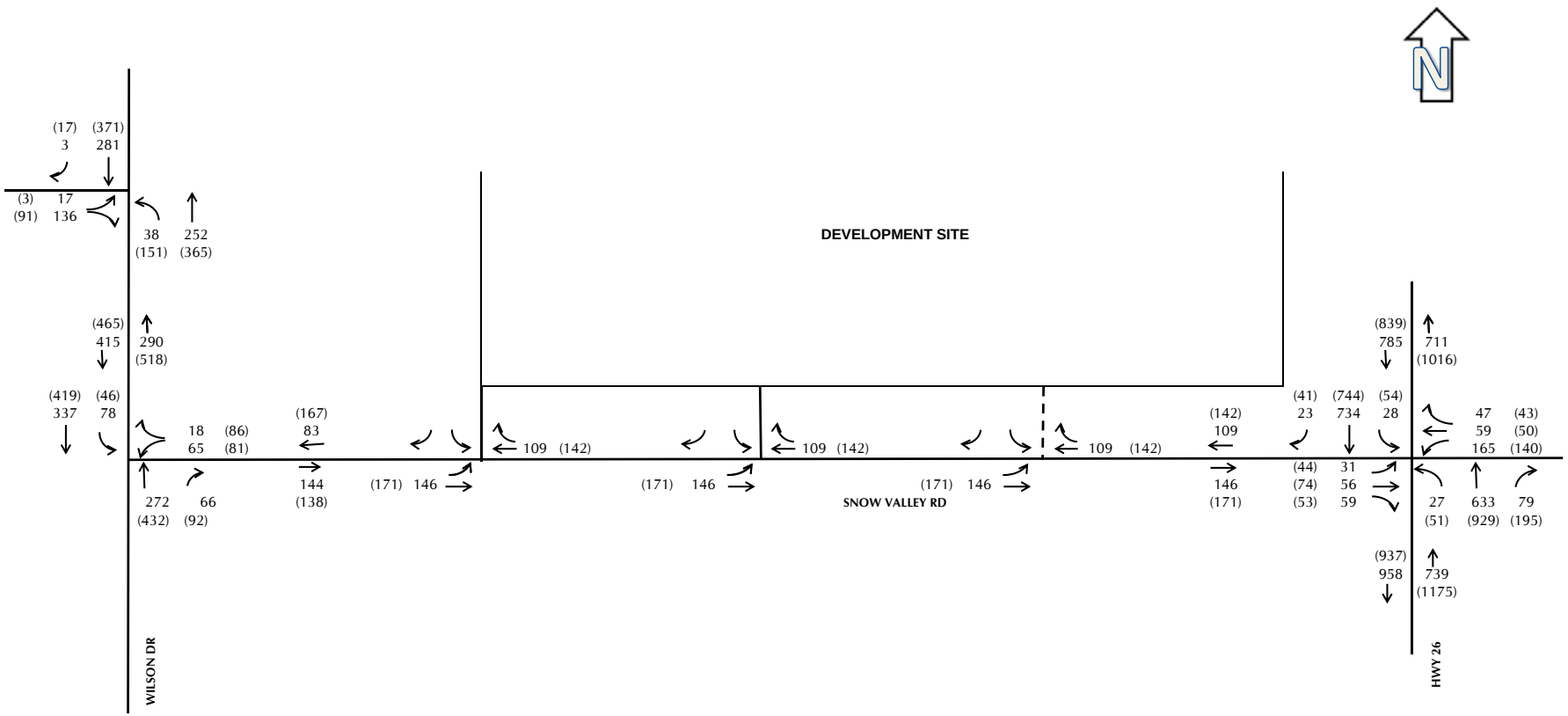
Figure 6

2028 Site Generated Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley GROUP CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

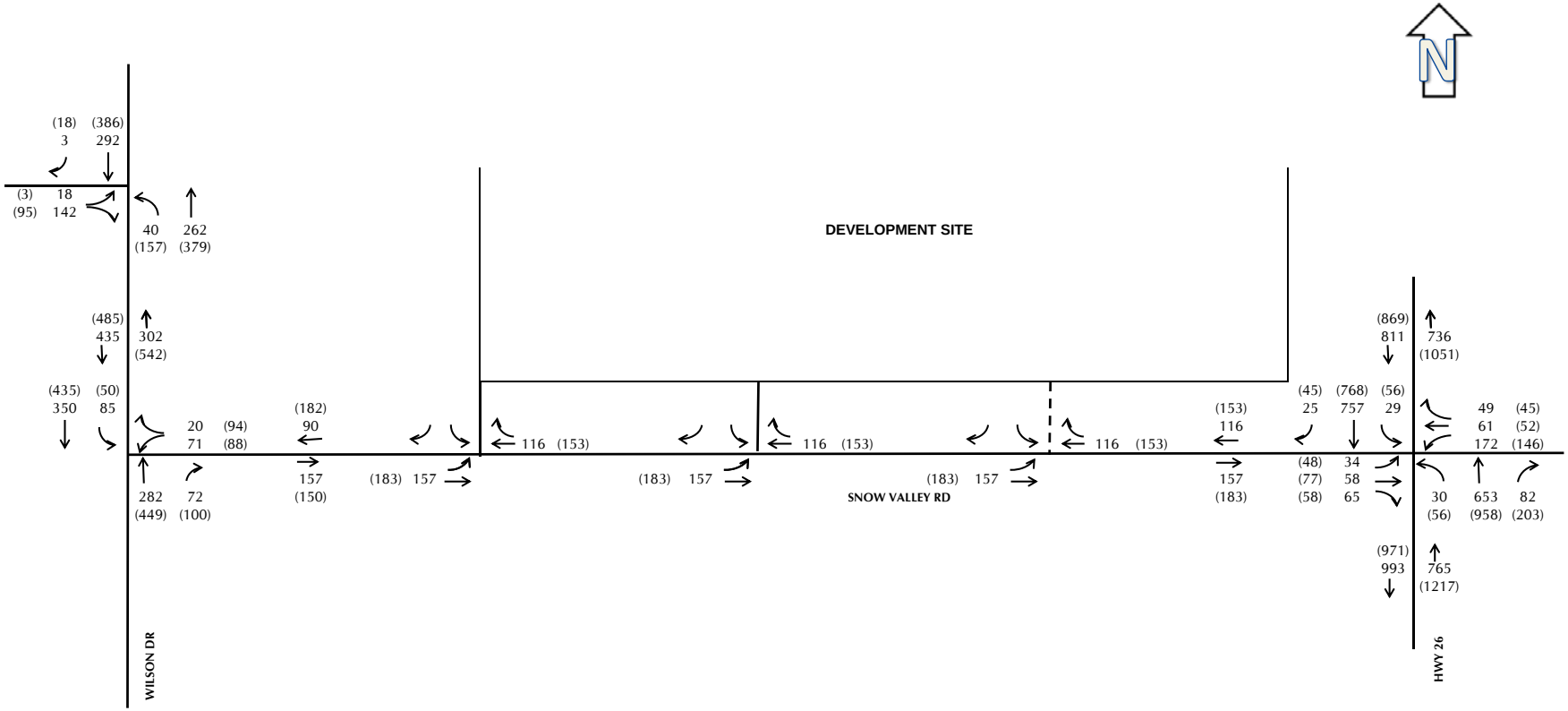
Figure 7

Existing 2018 Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

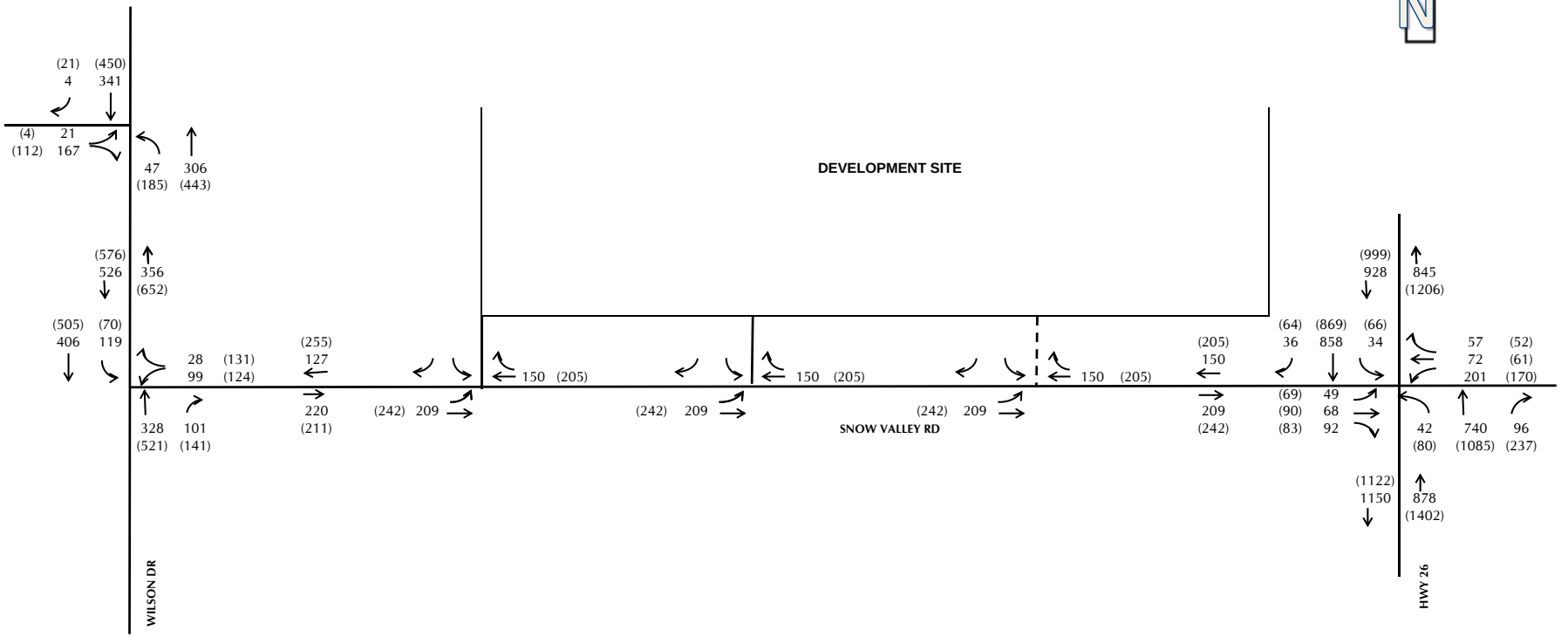
Figure 8

2019 Background Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

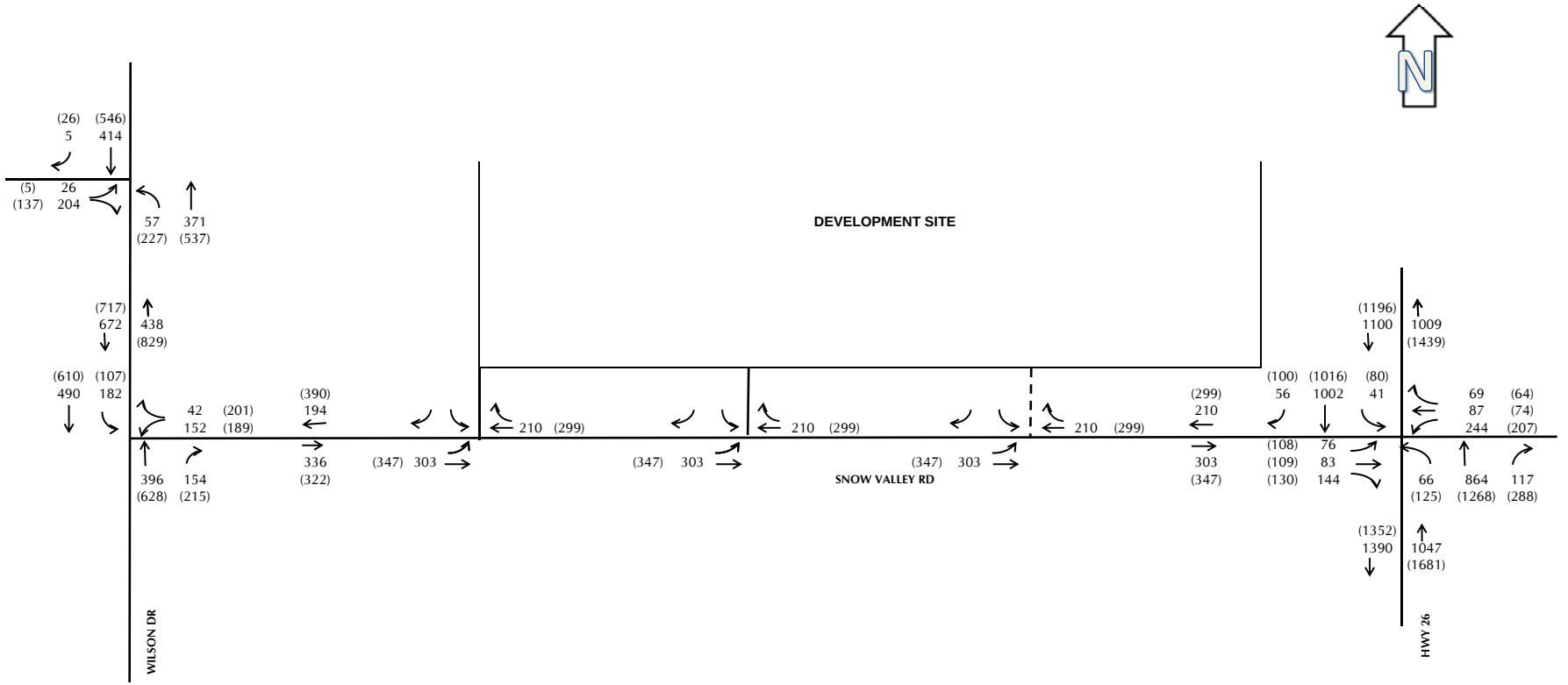
Figure 9

2023 Background Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

Figure 10

2028 Background Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS

100 (100) AM (PM) Peak Hour

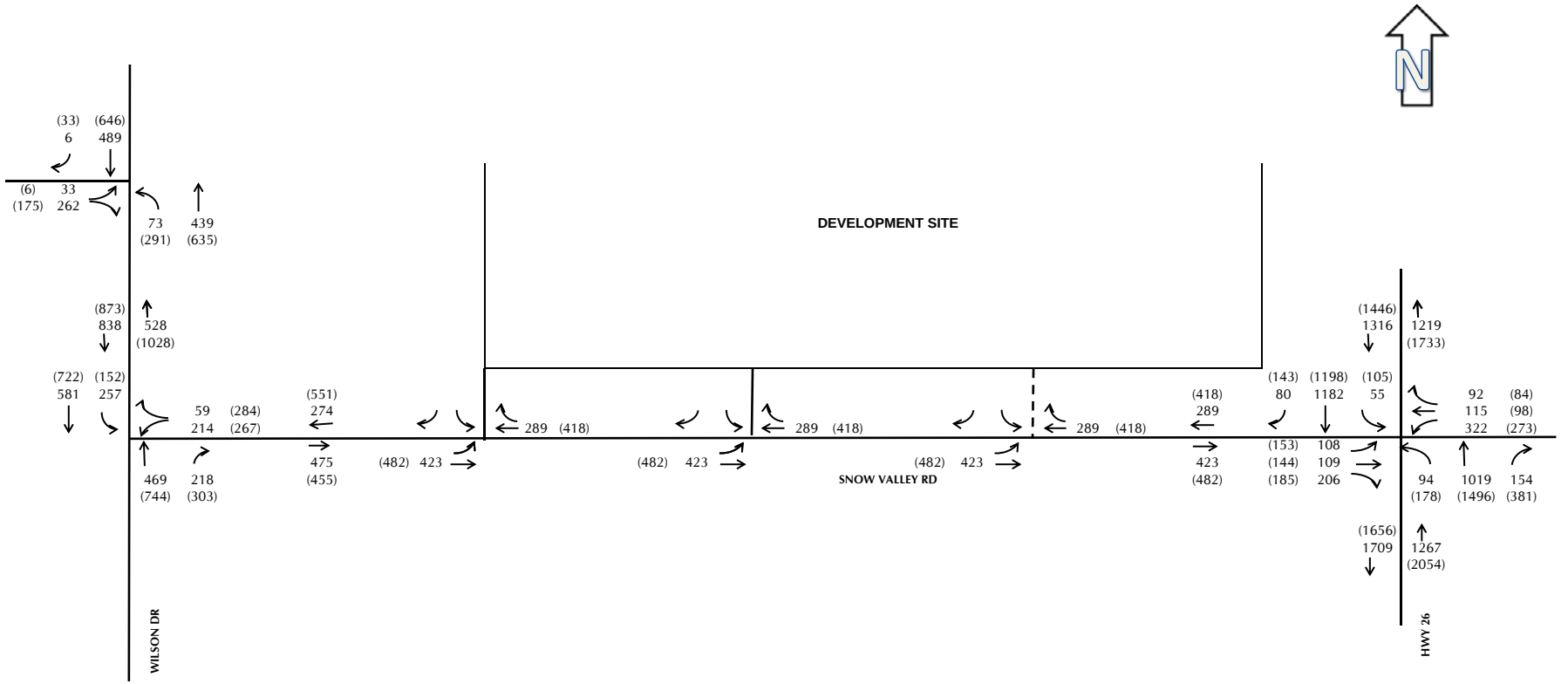
Figure 11

2033 Background Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



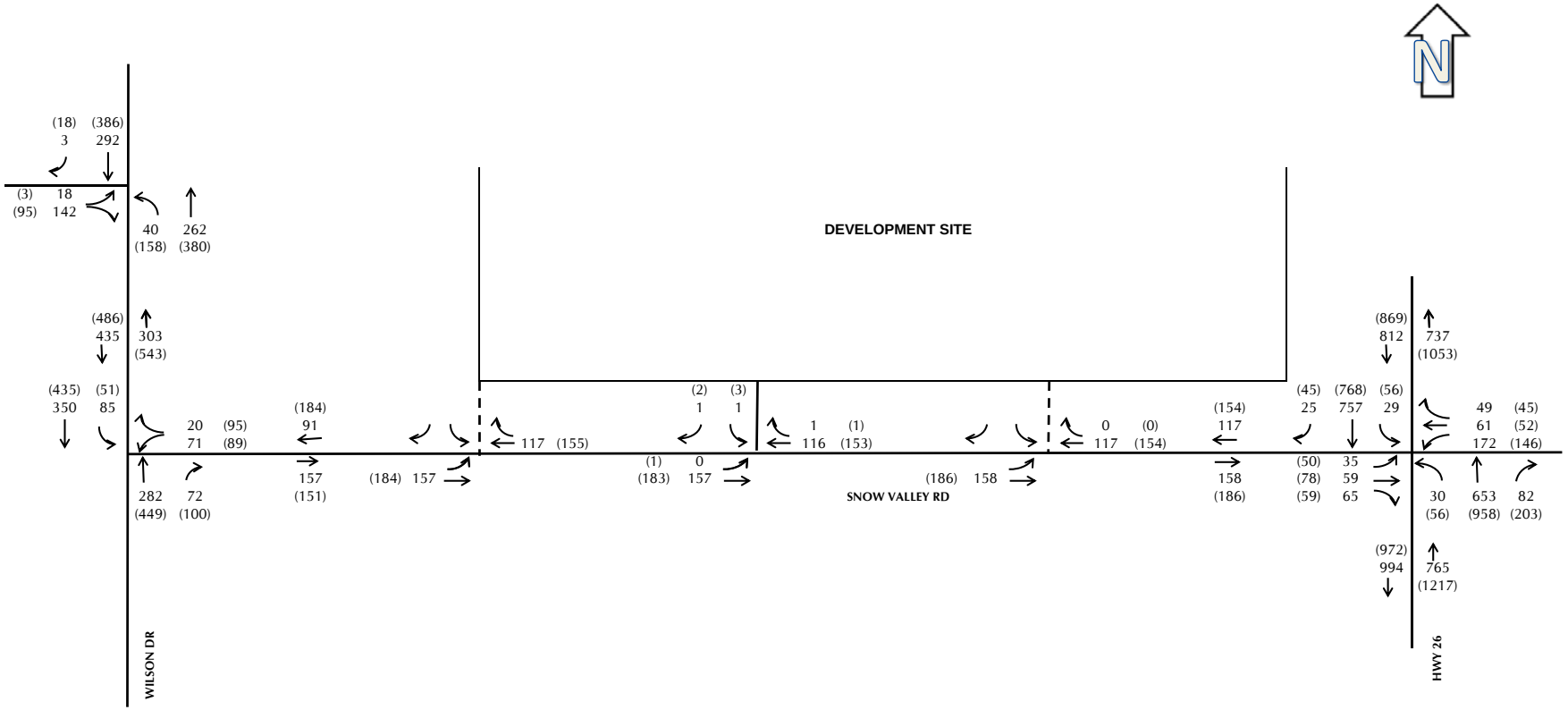
100 (100) AM (PM) Peak Hour

Figure 12

2038 Background Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater



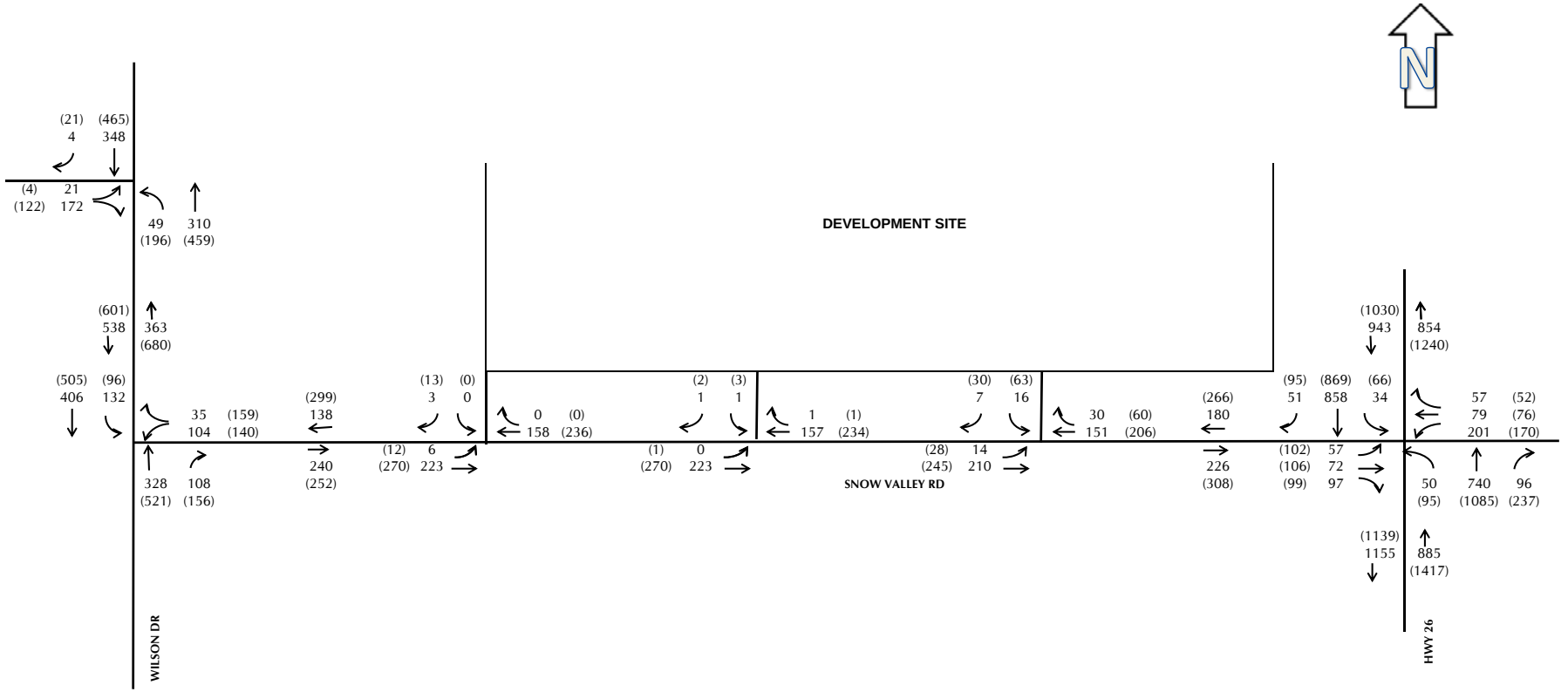
100 (100) AM (PM) Peak Hour

Figure 13

2019 Total Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater



100 (100) AM (PM) Peak Hour

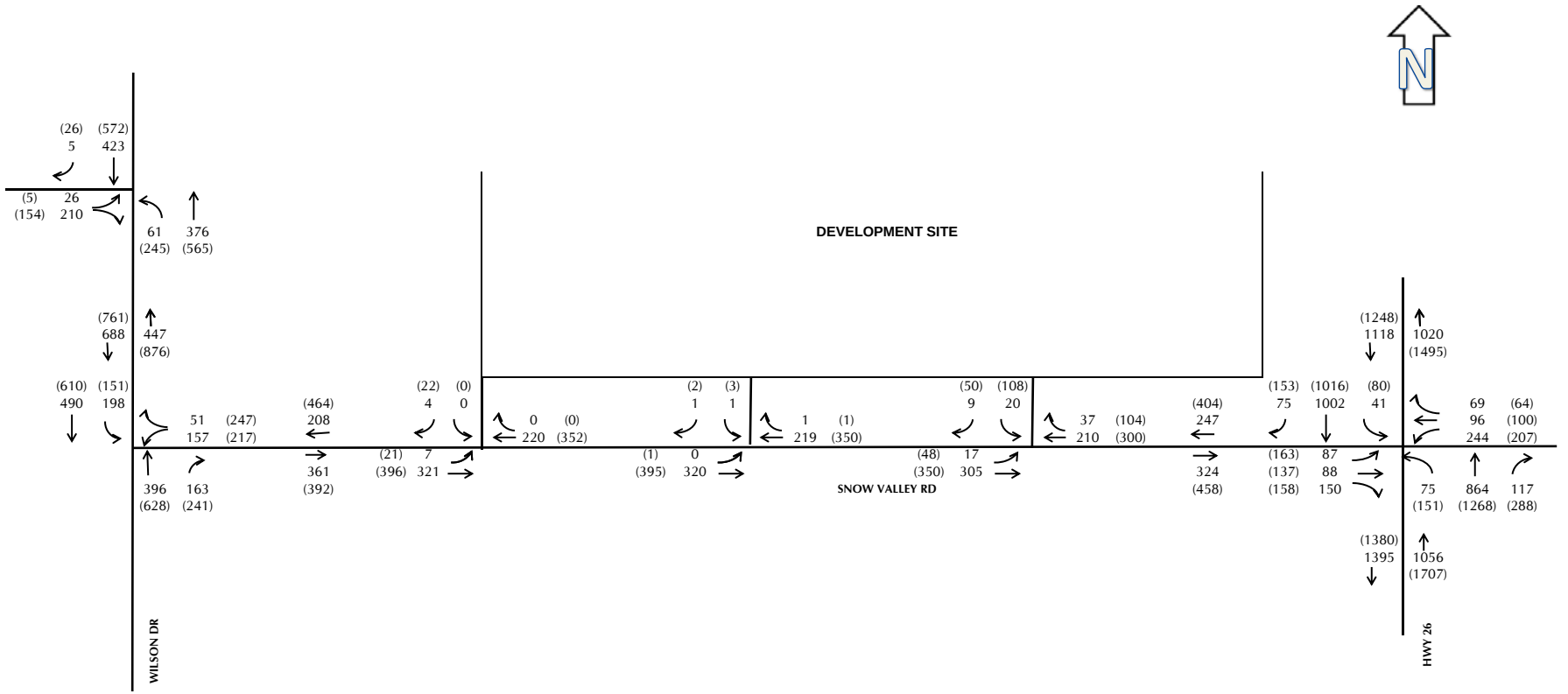
Figure 14

2023 Total Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

Figure 15

2028 Total Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS

100 (100) AM (PM) Peak Hour

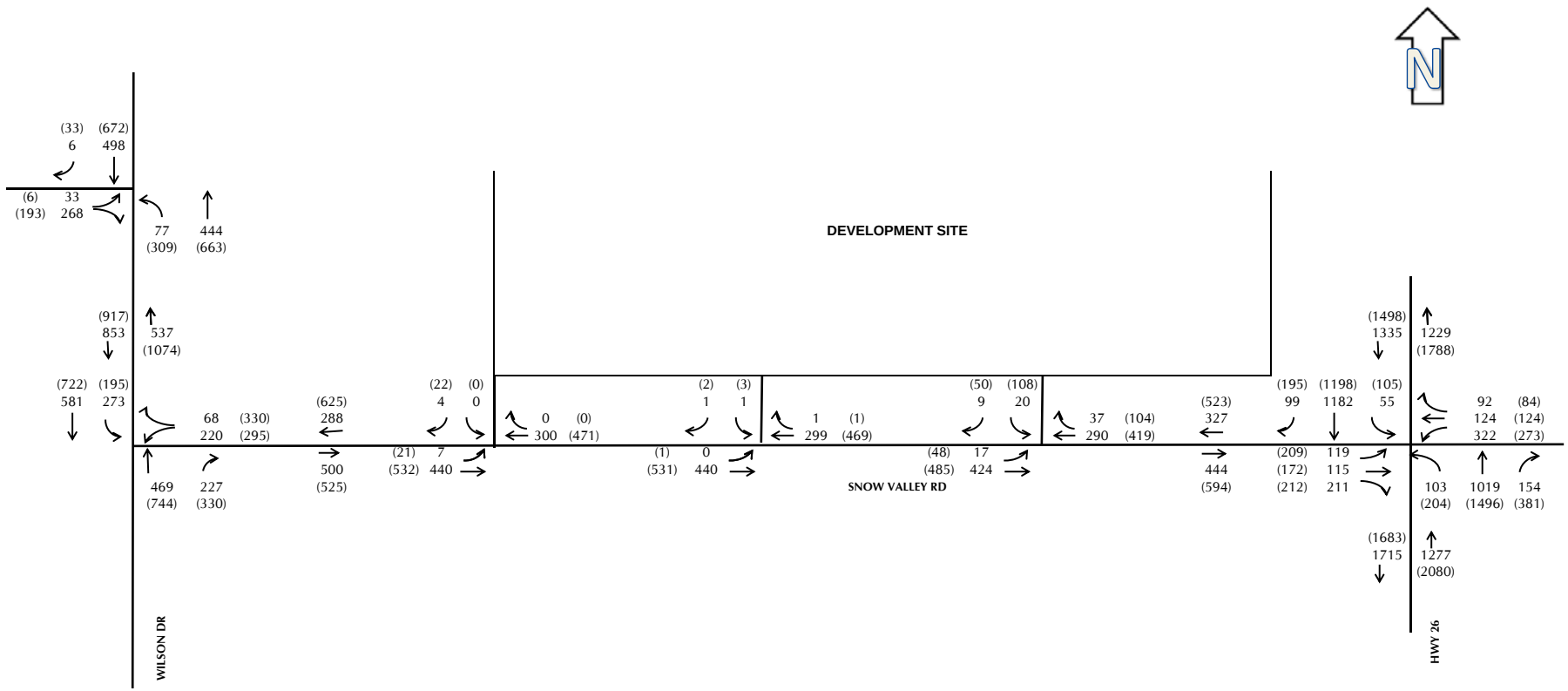
Figure 16

2033 Total Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS



100 (100) AM (PM) Peak Hour

Figure 17

2038 Total Traffic Volumes

Township Owned Multi-Purpose Development Traffic Imapct Study

Township of Springwater

Ainley Group CONSULTING ENGINEERS PLANNERS

Appendix A

Traffic Counts

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 8:00:00
To: 9:00:00

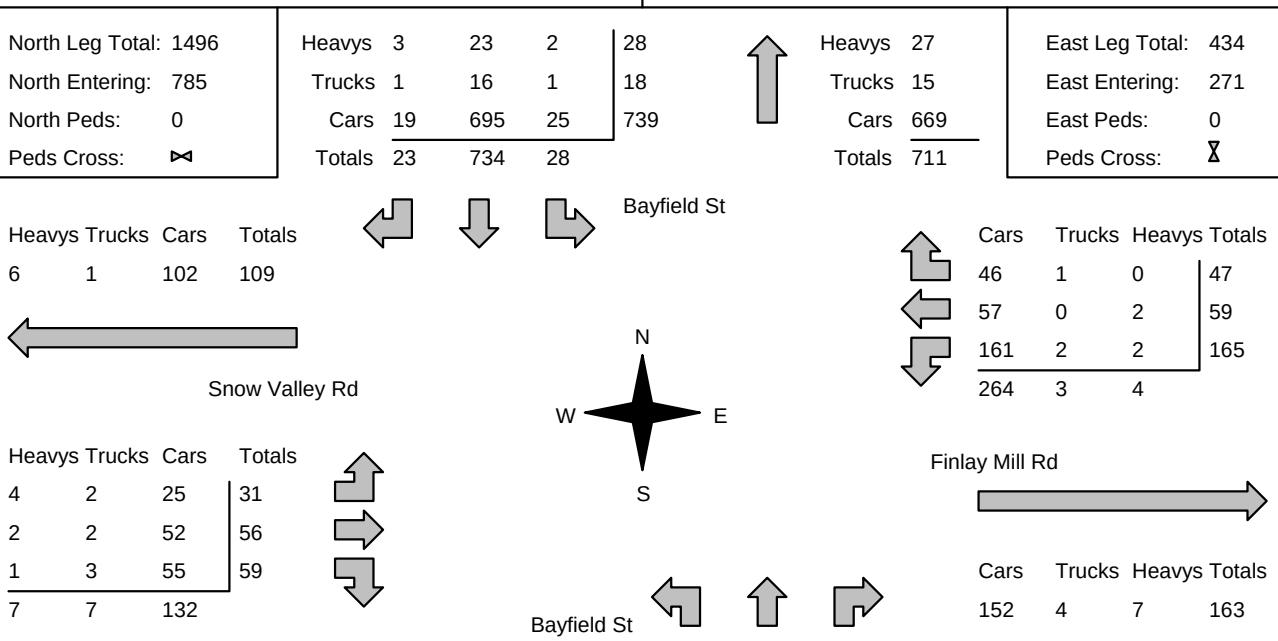
Municipality: Midhurst
Site #: 1809300001
Intersection: Bayfield St & Snow Valley Rd
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Bayfield St runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:30:00
To: 17:30:00

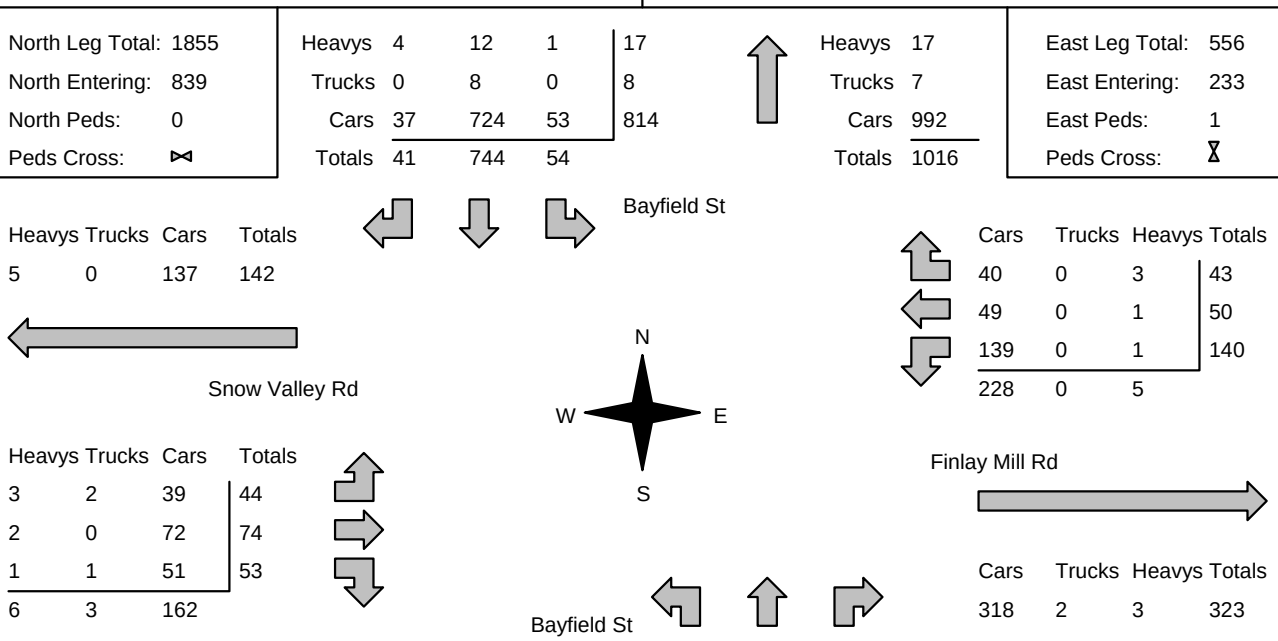
Municipality: Midhurst
Site #: 1809300001
Intersection: Bayfield St & Snow Valley Rd
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Bayfield St runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

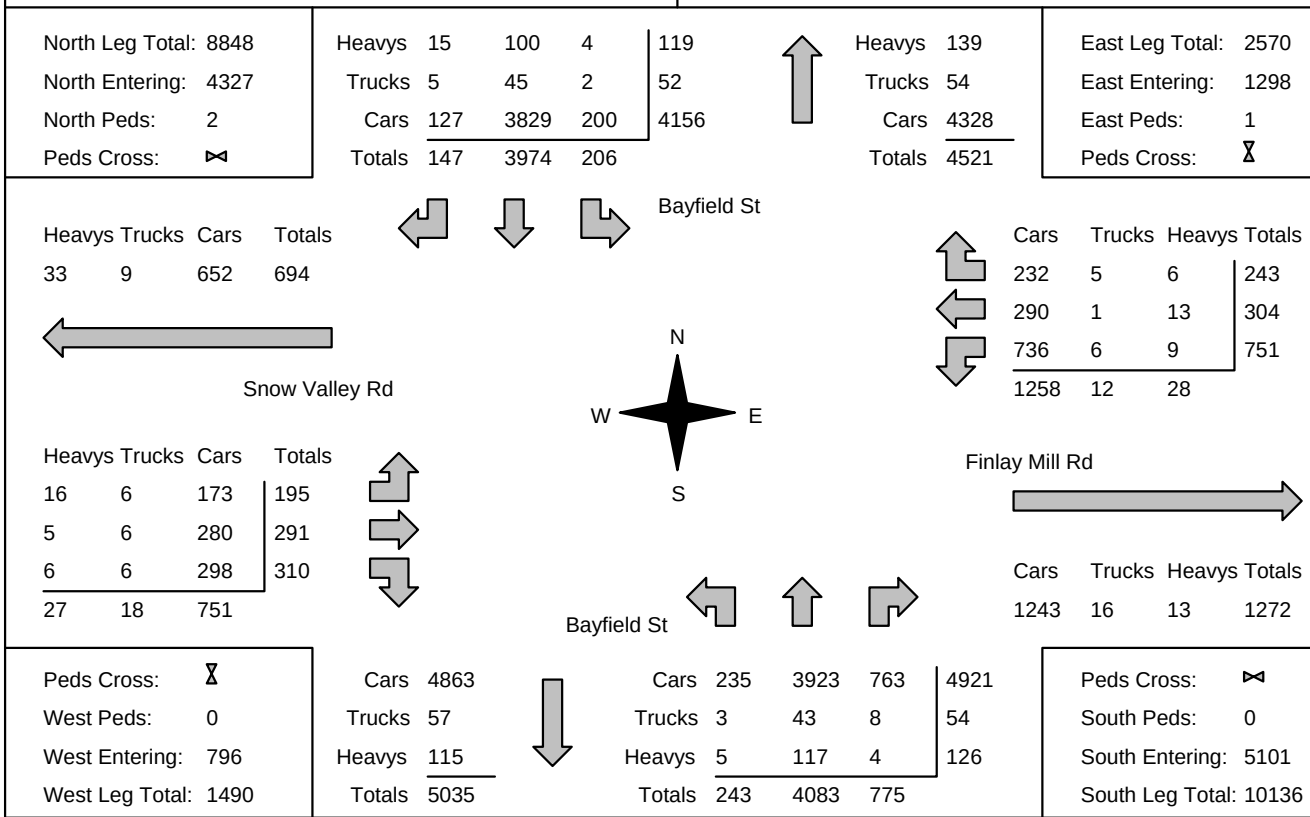
Municipality: Midhurst
Site #: 1809300001
Intersection: Bayfield St & Snow Valley Rd
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Signalized Intersection ****

Major Road: Bayfield St runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Bayfield St & Snow Valley Rd | **Count Date:** 4-Jul-18 | **Municipality:** Midhurst

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*16*	*606*	*24*	*646*	*0*
9:00:00	*28*	*734*	*23*	*785*	*0*
10:00:00	*33*	*642*	*19*	*694*	*2*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*38*	*617*	*25*	*680*	*0*
17:00:00	*56*	*720*	*31*	*807*	*0*
18:00:00	*35*	*655*	*25*	*715*	*0*
Totals:	206	3974	147	4327	2

North/South Total Approaches: 9428

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*30*	*401*	*56*	*487*	*0*
9:00:00	*27*	*633*	*79*	*739*	*0*
10:00:00	*26*	*559*	*88*	*673*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*48*	*681*	*163*	*892*	*0*
17:00:00	*60*	*855*	*191*	*1106*	*0*
18:00:00	*52*	*954*	*198*	*1204*	*0*
S Totals:	243	4083	775	5101	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*105*	*46*	*36*	*187*	*0*
9:00:00	*165*	*59*	*47*	*271*	*0*
10:00:00	*124*	*32*	*36*	*192*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*118*	*48*	*32*	*198*	*0*
17:00:00	*118*	*67*	*50*	*235*	*1*
18:00:00	*121*	*52*	*42*	*215*	*0*
Totals:	751	304	243	1298	1

East/West Total Approaches: 2094

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*28*	*20*	*55*	*103*	*0*
9:00:00	*31*	*56*	*59*	*146*	*0*
10:00:00	*25*	*32*	*42*	*99*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*32*	*58*	*57*	*147*	*0*
17:00:00	*40*	*76*	*50*	*166*	*0*
18:00:00	*39*	*49*	*47*	*135*	*0*
W Totals:	195	291	310	796	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*179*	*255*	*183*	*0*	*208*	*234*	*212*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300001**

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	2	2	104	104	7	7	0	0	1	1	0	0	0	0	1	1	0	0	0	0
7:30:00	7	5	232	128	14	7	0	0	1	0	0	0	0	0	3	2	0	0	0	0
7:45:00	13	6	419	187	16	2	0	0	3	2	1	1	0	0	5	2	2	2	0	0
8:00:00	16	3	592	173	20	4	0	0	3	0	1	0	0	0	11	6	3	1	0	0
8:15:00	26	10	762	170	23	3	0	0	8	5	1	0	0	0	12	1	3	0	0	0
8:30:00	31	5	935	173	29	6	1	1	9	1	1	0	1	1	20	8	3	0	0	0
8:45:00	35	4	1103	168	32	3	1	0	12	3	1	0	2	1	26	6	3	0	0	0
9:00:00	41	6	1287	184	39	7	1	0	19	7	2	1	2	0	34	8	6	3	0	0
9:15:00	49	8	1425	138	43	4	1	0	21	2	2	0	2	0	35	1	7	1	0	0
9:30:00	61	12	1606	181	48	5	1	0	22	1	2	0	2	0	43	8	7	0	2	2
9:45:00	69	8	1754	148	53	5	1	0	23	1	2	0	2	0	49	6	7	0	2	0
10:00:00	74	5	1894	140	55	2	1	0	27	4	2	0	2	0	61	12	9	2	2	0
10:15:00	74	0	1894	0	55	0	1	0	27	0	2	0	2	0	61	0	9	0	2	0
15:00:00	74	0	1894	0	55	0	1	0	27	0	2	0	2	0	61	0	9	0	2	0
15:15:00	91	17	2043	149	59	4	1	0	29	2	2	0	2	0	67	6	9	0	2	0
15:30:00	100	9	2202	159	59	0	1	0	29	0	4	2	2	0	71	4	10	1	2	0
15:45:00	108	8	2341	139	69	10	1	0	31	2	5	1	2	0	75	4	11	1	2	0
16:00:00	112	4	2487	146	75	6	1	0	33	2	5	0	2	0	79	4	11	0	2	0
16:15:00	124	12	2647	160	79	4	2	1	34	1	5	0	3	1	84	5	11	0	2	0
16:30:00	133	9	2782	135	83	4	2	0	34	0	5	0	3	0	87	3	11	0	2	0
16:45:00	153	20	3017	235	97	14	2	0	36	2	5	0	4	1	87	0	12	1	2	0
17:00:00	165	12	3188	171	105	8	2	0	39	3	5	0	4	0	92	5	12	0	2	0
17:15:00	179	14	3366	178	114	9	2	0	41	2	5	0	4	0	97	5	14	2	2	0
17:30:00	186	7	3506	140	120	6	2	0	42	1	5	0	4	0	99	2	15	1	2	0
17:45:00	194	8	3667	161	123	3	2	0	44	2	5	0	4	0	100	1	15	0	2	0
18:00:00	200	6	3829	162	127	4	2	0	45	1	5	0	4	0	100	0	15	0	2	0
18:15:00	200	0	3829	0	127	0	2	0	45	0	5	0	4	0	100	0	15	0	2	0
18:15:15	200	0	3829	0	127	0	2	0	45	0	5	0	4	0	100	0	15	0	2	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 Site #: 1809300001

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	18	18	14	14	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	40	22	25	11	14	7	0	0	0	0	0	0	1	1	1	1	0	0	0	0
7:45:00	72	32	33	8	23	9	0	0	0	0	0	0	2	1	1	0	1	1	0	0
8:00:00	102	30	45	12	35	12	0	0	0	0	0	0	3	1	1	0	1	0	0	0
8:15:00	147	45	59	14	48	13	0	0	0	0	0	0	3	0	1	0	1	0	0	0
8:30:00	186	39	71	12	67	19	1	1	0	0	0	0	3	0	1	0	1	0	0	0
8:45:00	220	34	86	15	70	3	1	0	0	0	1	1	4	1	3	2	1	0	0	0
9:00:00	263	43	102	16	81	11	2	1	0	0	1	0	5	1	3	0	1	0	0	0
9:15:00	297	34	108	6	89	8	2	0	0	0	1	0	5	0	3	0	1	0	0	0
9:30:00	327	30	116	8	99	10	2	0	0	0	1	0	5	0	4	1	1	0	0	0
9:45:00	357	30	125	9	106	7	2	0	0	0	3	2	5	0	4	0	1	0	0	0
10:00:00	386	29	133	8	114	8	3	1	0	0	3	0	5	0	4	0	2	1	0	0
10:15:00	386	0	133	0	114	0	3	0	0	0	3	0	5	0	4	0	2	0	0	0
15:00:00	386	0	133	0	114	0	3	0	0	0	3	0	5	0	4	0	2	0	0	0
15:15:00	416	30	142	9	122	8	4	1	0	0	4	1	6	1	6	2	2	0	0	0
15:30:00	439	23	153	11	127	5	4	0	1	1	4	0	6	0	8	2	2	0	0	0
15:45:00	469	30	170	17	136	9	4	0	1	0	4	0	7	1	9	1	2	0	0	0
16:00:00	501	32	175	5	144	8	4	0	1	0	4	0	7	0	9	0	3	1	0	0
16:15:00	525	24	188	13	155	11	6	2	1	0	4	0	8	1	10	1	3	0	0	0
16:30:00	546	21	211	23	170	15	6	0	1	0	5	1	8	0	12	2	3	0	0	0
16:45:00	583	37	227	16	181	11	6	0	1	0	5	0	9	1	12	0	5	2	0	0
17:00:00	615	32	239	12	191	10	6	0	1	0	5	0	9	0	12	0	5	0	1	1
17:15:00	661	46	252	13	197	6	6	0	1	0	5	0	9	0	13	1	6	1	1	0
17:30:00	685	24	260	8	210	13	6	0	1	0	5	0	9	0	13	0	6	0	1	0
17:45:00	708	23	281	21	218	8	6	0	1	0	5	0	9	0	13	0	6	0	1	0
18:00:00	736	28	290	9	232	14	6	0	1	0	5	0	9	0	13	0	6	0	1	0
18:15:00	736	0	290	0	232	0	6	0	1	0	5	0	9	0	13	0	6	0	1	0
18:15:15	736	0	290	0	232	0	6	0	1	0	5	0	9	0	13	0	6	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300001**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	8	8	74	74	11	11	1	1	2	2	0	0	0	0	8	8	0	0	0	0
7:30:00	16	8	150	76	19	8	1	0	7	5	1	1	0	0	13	5	0	0	0	0
7:45:00	22	6	247	97	35	16	2	1	10	3	1	0	0	0	25	12	1	1	0	0
8:00:00	28	6	355	108	54	19	2	0	10	0	1	0	0	0	36	11	1	0	0	0
8:15:00	31	3	501	146	70	16	2	0	16	6	1	0	1	1	43	7	3	2	0	0
8:30:00	37	6	681	180	89	19	2	0	17	1	1	0	1	0	45	2	3	0	0	0
8:45:00	46	9	822	141	108	19	2	0	22	5	2	1	1	0	49	4	4	1	0	0
9:00:00	54	8	953	131	129	21	2	0	22	0	2	0	1	0	59	10	4	0	0	0
9:15:00	60	6	1080	127	154	25	2	0	23	1	3	1	2	1	71	12	4	0	0	0
9:30:00	64	4	1204	124	180	26	2	0	27	4	3	0	2	0	79	8	4	0	0	0
9:45:00	71	7	1326	122	190	10	2	0	29	2	5	2	2	0	85	6	4	0	0	0
10:00:00	79	8	1474	148	214	24	2	0	31	2	5	0	2	0	88	3	4	0	0	0
10:15:00	79	0	1474	0	214	0	2	0	31	0	5	0	2	0	88	0	4	0	0	0
15:00:00	79	0	1474	0	214	0	2	0	31	0	5	0	2	0	88	0	4	0	0	0
15:15:00	91	12	1635	161	254	40	2	0	32	1	5	0	2	0	91	3	4	0	0	0
15:30:00	103	12	1814	179	288	34	2	0	33	1	6	1	2	0	94	3	4	0	0	0
15:45:00	115	12	1975	161	326	38	2	0	34	1	6	0	2	0	94	0	4	0	0	0
16:00:00	127	12	2143	168	376	50	2	0	34	0	6	0	2	0	97	3	4	0	0	0
16:15:00	144	17	2327	184	423	47	2	0	35	1	6	0	2	0	102	5	4	0	0	0
16:30:00	162	18	2546	219	470	47	2	0	37	2	6	0	4	2	103	1	4	0	0	0
16:45:00	175	13	2753	207	518	48	2	0	37	0	7	1	4	0	108	5	4	0	0	0
17:00:00	185	10	2976	223	566	48	2	0	41	4	7	0	4	0	112	4	4	0	0	0
17:15:00	196	11	3181	205	613	47	2	0	42	1	8	1	4	0	113	1	4	0	0	0
17:30:00	213	17	3459	278	663	50	2	0	42	0	8	0	4	0	114	1	4	0	0	0
17:45:00	226	13	3705	246	727	64	2	0	43	1	8	0	4	0	115	1	4	0	0	0
18:00:00	235	9	3923	218	763	36	3	1	43	0	8	0	5	1	117	2	4	0	0	0
18:15:00	235	0	3923	0	763	0	3	0	43	0	8	0	5	0	117	0	4	0	0	0
18:15:15	235	0	3923	0	763	0	3	0	43	0	8	0	5	0	117	0	4	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 Site #: 1809300001

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	7	7	4	4	10	10	0	0	0	0	0	0	1	1	0	0	1	1	0	0
7:30:00	15	8	9	5	27	17	0	0	0	0	0	0	2	1	0	0	1	0	0	0
7:45:00	18	3	15	6	44	17	0	0	0	0	0	0	2	0	0	0	1	0	0	0
8:00:00	26	8	20	5	54	10	0	0	0	0	0	0	2	0	0	0	1	0	0	0
8:15:00	33	7	29	9	61	7	0	0	1	1	1	1	2	0	1	1	1	0	0	0
8:30:00	37	4	44	15	93	32	0	0	1	0	3	2	5	3	1	0	1	0	0	0
8:45:00	41	4	62	18	99	6	0	0	1	0	3	0	6	1	1	0	1	0	0	0
9:00:00	51	10	72	10	109	10	2	2	2	1	3	0	6	0	2	1	2	1	0	0
9:15:00	56	5	80	8	114	5	2	0	2	0	3	0	6	0	2	0	2	0	0	0
9:30:00	62	6	90	10	126	12	2	0	2	0	3	0	8	2	2	0	3	1	0	0
9:45:00	64	2	94	4	139	13	2	0	3	1	3	0	9	1	2	0	4	1	0	0
10:00:00	71	7	101	7	149	10	3	1	4	1	3	0	10	1	3	1	4	0	0	0
10:15:00	71	0	101	0	149	0	3	0	4	0	3	0	10	0	3	0	4	0	0	0
15:00:00	71	0	101	0	149	0	3	0	4	0	3	0	10	0	3	0	4	0	0	0
15:15:00	76	5	112	11	162	13	3	0	4	0	3	0	11	1	3	0	4	0	0	0
15:30:00	81	5	125	13	182	20	3	0	4	0	3	0	11	0	3	0	5	1	0	0
15:45:00	92	11	142	17	195	13	3	0	4	0	3	0	11	0	3	0	5	0	0	0
16:00:00	101	9	158	16	204	9	3	0	5	1	4	1	12	1	3	0	5	0	0	0
16:15:00	115	14	172	14	216	12	4	1	6	1	5	1	12	0	3	0	5	0	0	0
16:30:00	118	3	189	17	227	11	4	0	6	0	5	0	13	1	3	0	5	0	0	0
16:45:00	126	8	210	21	237	10	4	0	6	0	5	0	14	1	3	0	5	0	0	0
17:00:00	138	12	233	23	252	15	4	0	6	0	6	1	14	0	3	0	5	0	0	0
17:15:00	145	7	249	16	268	16	6	2	6	0	6	0	15	1	4	1	6	1	0	0
17:30:00	157	12	261	12	278	10	6	0	6	0	6	0	16	1	5	1	6	0	0	0
17:45:00	170	13	271	10	289	11	6	0	6	0	6	0	16	0	5	0	6	0	0	0
18:00:00	173	3	280	9	298	9	6	0	6	0	6	0	16	0	5	0	6	0	0	0
18:15:00	173	0	280	0	298	0	6	0	6	0	6	0	16	0	5	0	6	0	0	0
18:15:15	173	0	280	0	298	0	6	0	6	0	6	0	16	0	5	0	6	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 7:30:00
To: 8:30:00

Municipality: Midhurst
Site #: 1809300002
Intersection: Wilson Dr & Snow Valley Rd South
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

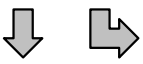
Major Road: Wilson Dr runs N/S

North Leg Total: 705
North Entering: 415
North Peds: 0
Peds Cross: ⋈

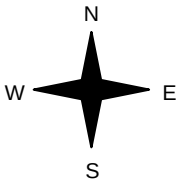
Heavys	3	0	3
Trucks	0	1	1
Cars	334	77	411
Totals	337	78	

Heavys	25
Trucks	5
Cars	260
Totals	290

East Leg Total: 227
East Entering: 83
East Peds: 0
Peds Cross: ⋈



	Cars	Trucks	Heavys	Totals
	15	0	3	18
	61	0	4	65
	76	0	7	



Snow Valley Rd South

	Cars	Trucks	Heavys	Totals
	140	2	2	144

Wilson Dr

Cars	395		
Trucks	0		
Heavys	7		
Totals	402		

Cars	245	63	308
Trucks	5	1	6
Heavys	22	2	24
Totals	272	66	

Peds Cross: ⋈
South Peds: 0
South Entering: 338
South Leg Total: 740

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:30:00
To: 17:30:00

Municipality: Midhurst
Site #: 1809300002
Intersection: Wilson Dr & Snow Valley Rd South
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Wilson Dr runs N/S

North Leg Total: 983
North Entering: 465
North Peds: 0
Peds Cross: ⋈

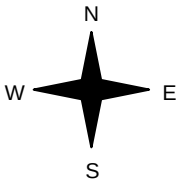
Heavys	6	2	8
Trucks	6	0	6
Cars	407	44	451
Totals	419	46	

Heavys	5
Trucks	5
Cars	508
Totals	518

East Leg Total: 305
East Entering: 167
East Peds: 0
Peds Cross: ⋈

Wilson Dr

Cars	Trucks	Heavys	Totals
81	2	3	86
77	0	4	81
158	2	7	



Snow Valley Rd South

Cars	Trucks	Heavys	Totals
130	0	8	138

Wilson Dr

Cars	484
Trucks	6
Heavys	10
Totals	500

Cars	427	86	513
Trucks	3	0	3
Heavys	2	6	8
Totals	432	92	

Peds Cross: ⋈
South Peds: 0
South Entering: 524
South Leg Total: 1024

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

Municipality: Midhurst
Site #: 1809300002
Intersection: Wilson Dr & Snow Valley Rd South
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Wilson Dr runs N/S

North Leg Total: 4382
North Entering: 2241
North Peds: 0
Peds Cross: ⋈

Heavys	42	8	50
Trucks	18	3	21
Cars	1868	302	2170
Totals	1928	313	

Heavys	78
Trucks	34
Cars	2029
Totals	2141

East Leg Total: 1447
East Entering: 711
East Peds: 0
Peds Cross: ⋈

Wilson Dr

	Cars	Trucks	Heavys	Totals
	294	6	8	308
	379	3	21	403
	673	9	29	

N
W E
S

Snow Valley Rd South

	Cars	Trucks	Heavys	Totals
	699	8	29	736

Wilson Dr

Cars	2247	Cars	1735	397	2132
Trucks	21	Trucks	28	5	33
Heavys	63	Heavys	70	21	91
Totals	2331	Totals	1833	423	

Peds Cross: ⋈
South Peds: 0
South Entering: 2256
South Leg Total: 4587

Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Wilson Dr & Snow Valley Rd Sout | **Count Date:** 4-Jul-18 | **Municipality:** Midhurst

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*59*	*332*	*0*	*391*	*0*
9:00:00	*63*	*288*	*0*	*351*	*0*
10:00:00	*43*	*264*	*0*	*307*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*61*	*293*	*0*	*354*	*0*
17:00:00	*47*	*418*	*0*	*465*	*0*
18:00:00	*40*	*333*	*0*	*373*	*0*
Totals:	313	1928	0	2241	0

North/South Total Approaches: *0*, *659*, *703*, *565*, *0*, *755*, *957*, *858*, 4497

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*214*	*54*	*268*	*0*
9:00:00	*0*	*274*	*78*	*352*	*0*
10:00:00	*0*	*210*	*48*	*258*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*323*	*78*	*401*	*0*
17:00:00	*0*	*402*	*90*	*492*	*0*
18:00:00	*0*	*410*	*75*	*485*	*0*
S Totals:	0	1833	423	2256	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*70*	*0*	*23*	*93*	*0*
9:00:00	*65*	*0*	*39*	*104*	*0*
10:00:00	*46*	*0*	*27*	*73*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*73*	*0*	*61*	*134*	*0*
17:00:00	*79*	*0*	*81*	*160*	*0*
18:00:00	*70*	*0*	*77*	*147*	*0*
Totals:	403	0	308	711	0

East/West Total Approaches: *0*, *93*, *104*, *73*, *0*, *134*, *160*, *147*, 711

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*
9:00:00	*0*	*0*	*0*	*0*	*0*
10:00:00	*0*	*0*	*0*	*0*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*0*	*0*	*0*
18:00:00	*0*	*0*	*0*	*0*	*0*
W Totals:	0	0	0	0	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*70*	*65*	*46*	*0*	*73*	*79*	*70*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300002**

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	12	12	65	65	0	0	0	0	1	1	0	0	1	1	0	0	0	0	0	0
7:30:00	25	13	134	69	0	0	0	0	2	1	0	0	1	0	0	0	0	0	0	0
7:45:00	42	17	248	114	0	0	0	0	2	0	0	0	1	0	1	1	0	0	0	0
8:00:00	58	16	328	80	0	0	0	0	2	0	0	0	1	0	2	1	0	0	0	0
8:15:00	73	15	397	69	0	0	1	1	2	0	0	0	1	0	3	1	0	0	0	0
8:30:00	102	29	468	71	0	0	1	0	2	0	0	0	1	0	3	0	0	0	0	0
8:45:00	112	10	538	70	0	0	1	0	2	0	0	0	1	0	6	3	0	0	0	0
9:00:00	119	7	608	70	0	0	1	0	2	0	0	0	2	1	10	4	0	0	0	0
9:15:00	133	14	663	55	0	0	1	0	2	0	0	0	2	0	17	7	0	0	0	0
9:30:00	146	13	726	63	0	0	1	0	2	0	0	0	2	0	18	1	0	0	0	0
9:45:00	156	10	793	67	0	0	1	0	2	0	0	0	2	0	21	3	0	0	0	0
10:00:00	161	5	860	67	0	0	1	0	3	1	0	0	3	1	21	0	0	0	0	0
10:15:00	161	0	860	0	0	0	1	0	3	0	0	0	3	0	21	0	0	0	0	0
15:00:00	161	0	860	0	0	0	1	0	3	0	0	0	3	0	21	0	0	0	0	0
15:15:00	172	11	928	68	0	0	1	0	3	0	0	0	3	0	26	5	0	0	0	0
15:30:00	192	20	993	65	0	0	1	0	3	0	0	0	3	0	27	1	0	0	0	0
15:45:00	204	12	1064	71	0	0	1	0	3	0	0	0	6	3	34	7	0	0	0	0
16:00:00	218	14	1135	71	0	0	2	1	8	5	0	0	6	0	34	0	0	0	0	0
16:15:00	227	9	1220	85	0	0	3	1	11	3	0	0	6	0	34	0	0	0	0	0
16:30:00	237	10	1305	85	0	0	3	0	12	1	0	0	6	0	36	2	0	0	0	0
16:45:00	248	11	1432	127	0	0	3	0	14	2	0	0	6	0	37	1	0	0	0	0
17:00:00	264	16	1542	110	0	0	3	0	15	1	0	0	6	0	38	1	0	0	0	0
17:15:00	272	8	1634	92	0	0	3	0	15	0	0	0	7	1	40	2	0	0	0	0
17:30:00	281	9	1712	78	0	0	3	0	18	3	0	0	8	1	42	2	0	0	0	0
17:45:00	293	12	1795	83	0	0	3	0	18	0	0	0	8	0	42	0	0	0	0	0
18:00:00	302	9	1868	73	0	0	3	0	18	0	0	0	8	0	42	0	0	0	0	0
18:15:00	302	0	1868	0	0	0	3	0	18	0	0	0	8	0	42	0	0	0	0	0
18:15:15	302	0	1868	0	0	0	3	0	18	0	0	0	8	0	42	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300002**

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	13	13	0	0	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	31	18	0	0	12	4	0	0	0	0	1	1	1	1	0	0	1	1	0	0
7:45:00	48	17	0	0	14	2	0	0	0	0	1	0	2	1	0	0	1	0	0	0
8:00:00	65	17	0	0	21	7	0	0	0	0	1	0	5	3	0	0	1	0	0	0
8:15:00	75	10	0	0	24	3	0	0	0	0	1	0	5	0	0	0	4	3	0	0
8:30:00	92	17	0	0	27	3	0	0	0	0	1	0	5	0	0	0	4	0	0	0
8:45:00	112	20	0	0	40	13	1	1	0	0	1	0	6	1	0	0	4	0	0	0
9:00:00	126	14	0	0	57	17	1	0	0	0	1	0	8	2	0	0	4	0	0	0
9:15:00	139	13	0	0	65	8	1	0	0	0	2	1	10	2	0	0	4	0	0	0
9:30:00	149	10	0	0	66	1	1	0	0	0	2	0	11	1	0	0	4	0	0	0
9:45:00	159	10	0	0	72	6	1	0	0	0	2	0	11	0	0	0	4	0	0	0
10:00:00	167	8	0	0	83	11	1	0	0	0	2	0	13	2	0	0	4	0	0	0
10:15:00	167	0	0	0	83	0	1	0	0	0	2	0	13	0	0	0	4	0	0	0
15:00:00	167	0	0	0	83	0	1	0	0	0	2	0	13	0	0	0	4	0	0	0
15:15:00	176	9	0	0	99	16	1	0	0	0	2	0	14	1	0	0	5	1	0	0
15:30:00	191	15	0	0	110	11	2	1	0	0	3	1	14	0	0	0	5	0	0	0
15:45:00	211	20	0	0	126	16	2	0	0	0	3	0	16	2	0	0	5	0	0	0
16:00:00	236	25	0	0	141	15	2	0	0	0	4	1	16	0	0	0	5	0	0	0
16:15:00	250	14	0	0	162	21	3	1	0	0	4	0	16	0	0	0	5	0	0	0
16:30:00	268	18	0	0	179	17	3	0	0	0	4	0	17	1	0	0	5	0	0	0
16:45:00	299	31	0	0	196	17	3	0	0	0	5	1	17	0	0	0	7	2	0	0
17:00:00	312	13	0	0	218	22	3	0	0	0	6	1	18	1	0	0	7	0	0	0
17:15:00	330	18	0	0	239	21	3	0	0	0	6	0	20	2	0	0	7	0	0	0
17:30:00	345	15	0	0	260	21	3	0	0	0	6	0	21	1	0	0	8	1	0	0
17:45:00	367	22	0	0	281	21	3	0	0	0	6	0	21	0	0	0	8	0	0	0
18:00:00	379	12	0	0	294	13	3	0	0	0	6	0	21	0	0	0	8	0	0	0
18:15:00	379	0	0	0	294	0	3	0	0	0	6	0	21	0	0	0	8	0	0	0
18:15:15	379	0	0	0	294	0	3	0	0	0	6	0	21	0	0	0	8	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300002**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	36	36	7	7	0	0	2	2	0	0	0	0	8	8	1	1	0	0
7:30:00	0	0	78	42	25	18	0	0	4	2	0	0	0	0	14	6	2	1	0	0
7:45:00	0	0	121	43	35	10	0	0	5	1	0	0	0	0	20	6	2	0	0	0
8:00:00	0	0	183	62	52	17	0	0	6	1	0	0	0	0	25	5	2	0	0	0
8:15:00	0	0	242	59	68	16	0	0	7	1	1	1	0	0	34	9	3	1	0	0
8:30:00	0	0	323	81	88	20	0	0	9	2	1	0	0	0	36	2	4	1	0	0
8:45:00	0	0	379	56	102	14	0	0	10	1	2	1	0	0	37	1	5	1	0	0
9:00:00	0	0	434	55	124	22	0	0	13	3	2	0	0	0	41	4	6	1	0	0
9:15:00	0	0	479	45	134	10	0	0	17	4	2	0	0	0	44	3	6	0	0	0
9:30:00	0	0	533	54	143	9	0	0	18	1	2	0	0	0	47	3	9	3	0	0
9:45:00	0	0	572	39	149	6	0	0	22	4	2	0	0	0	50	3	10	1	0	0
10:00:00	0	0	623	51	164	15	0	0	22	0	4	2	0	0	53	3	12	2	0	0
10:15:00	0	0	623	0	164	0	0	0	22	0	4	0	0	0	53	0	12	0	0	0
15:00:00	0	0	623	0	164	0	0	0	22	0	4	0	0	0	53	0	12	0	0	0
15:15:00	0	0	698	75	186	22	0	0	23	1	5	1	0	0	59	6	13	1	0	0
15:30:00	0	0	764	66	199	13	0	0	23	0	5	0	0	0	62	3	13	0	0	0
15:45:00	0	0	839	75	219	20	0	0	24	1	5	0	0	0	65	3	13	0	0	0
16:00:00	0	0	932	93	239	20	0	0	24	0	5	0	0	0	65	0	14	1	0	0
16:15:00	0	0	1025	93	262	23	0	0	24	0	5	0	0	0	67	2	14	0	0	0
16:30:00	0	0	1113	88	285	23	0	0	24	0	5	0	0	0	67	0	14	0	0	0
16:45:00	0	0	1219	106	300	15	0	0	24	0	5	0	0	0	68	1	15	1	0	0
17:00:00	0	0	1330	111	325	25	0	0	25	1	5	0	0	0	68	0	18	3	0	0
17:15:00	0	0	1434	104	346	21	0	0	25	0	5	0	0	0	69	1	19	1	0	0
17:30:00	0	0	1540	106	371	25	0	0	27	2	5	0	0	0	69	0	20	1	0	0
17:45:00	0	0	1628	88	389	18	0	0	28	1	5	0	0	0	69	0	21	1	0	0
18:00:00	0	0	1735	107	397	8	0	0	28	0	5	0	0	0	70	1	21	0	0	0
18:15:00	0	0	1735	0	397	0	0	0	28	0	5	0	0	0	70	0	21	0	0	0
18:15:15	0	0	1735	0	397	0	0	0	28	0	5	0	0	0	70	0	21	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300002**

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 10:00:00

One Hour Peak
From: 7:30:00
To: 8:30:00

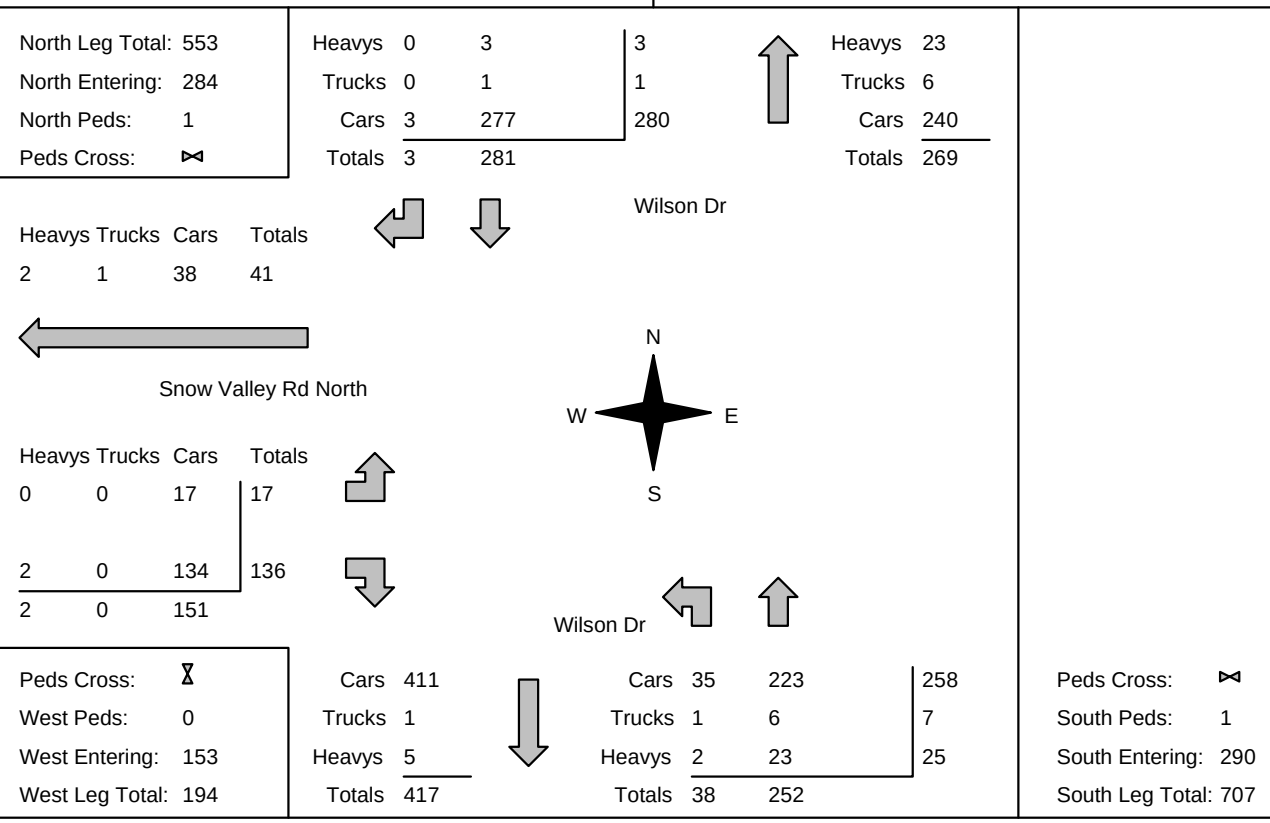
Municipality: Midhurst
Site #: 1809300003
Intersection: Wilson Dr & Snow Valley Rd North
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Wilson Dr runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 15:00:00
To: 18:00:00

One Hour Peak
From: 16:30:00
To: 17:30:00

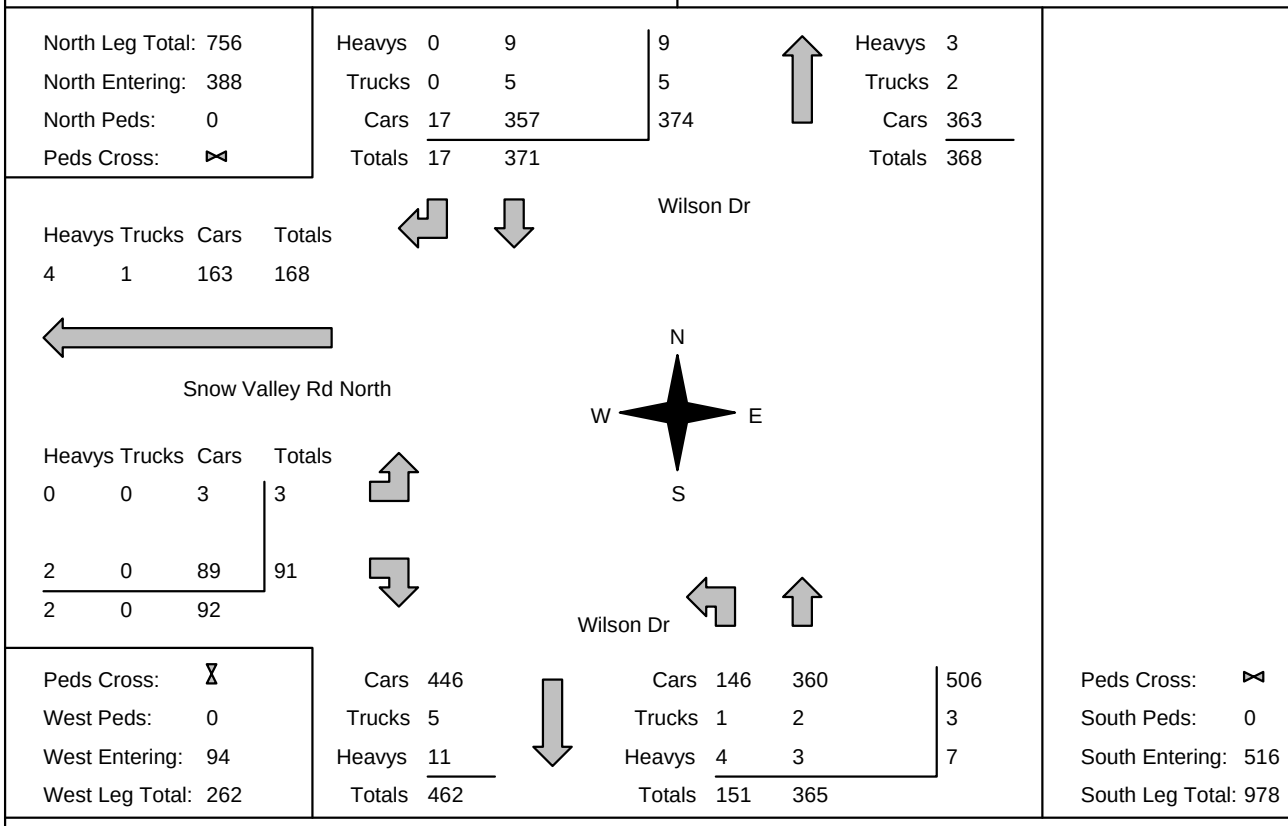
Municipality: Midhurst
Site #: 1809300003
Intersection: Wilson Dr & Snow Valley Rd North
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Wilson Dr runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

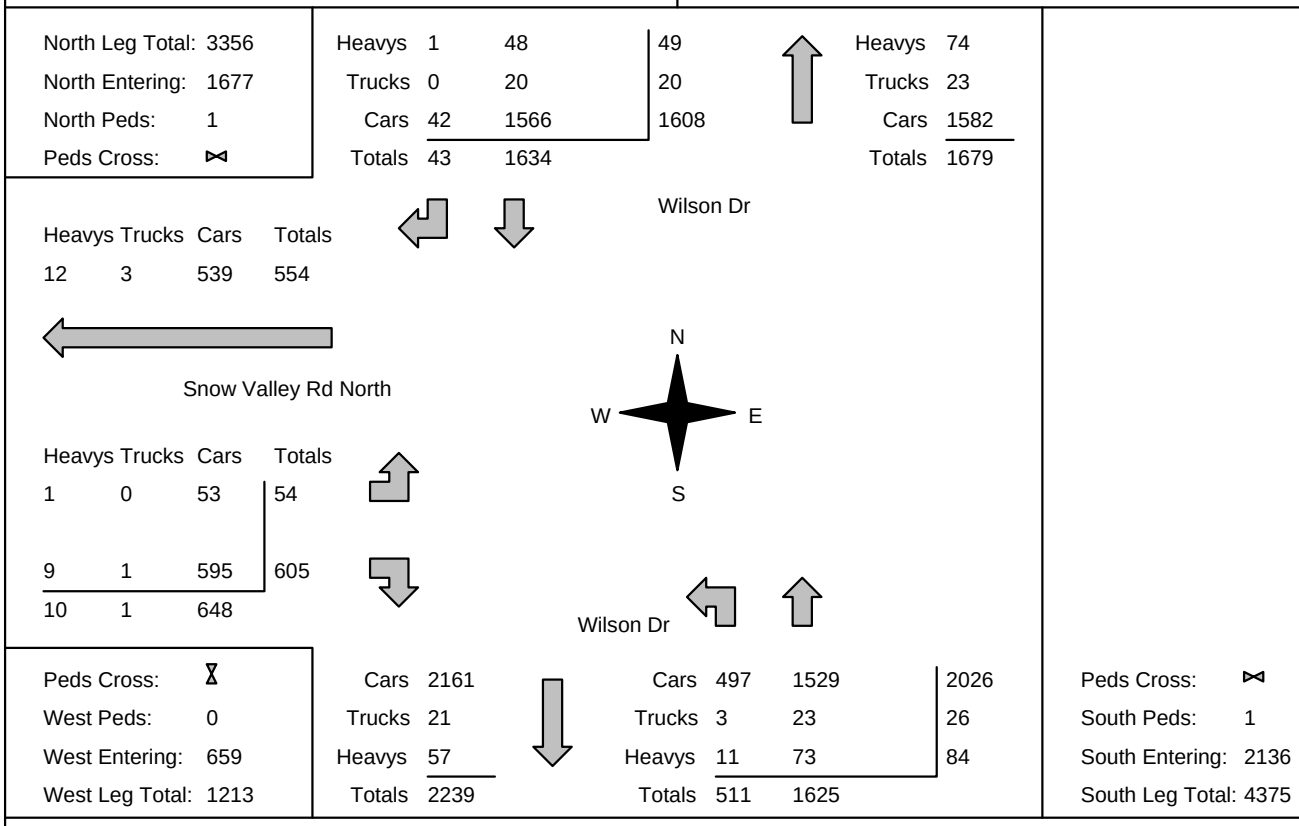
Municipality: Midhurst
Site #: 1809300003
Intersection: Wilson Dr & Snow Valley Rd North
TFR File #: 1
Count date: 4-Jul-18

Weather conditions:

Person counted:
Person prepared:
Person checked:

**** Non-Signalized Intersection ****

Major Road: Wilson Dr runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Wilson Dr & Snow Valley Rd North | **Count Date:** 4-Jul-18 | **Municipality:** Midhurst

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*283*	*2*	*285*	*1*
9:00:00	*0*	*219*	*4*	*223*	*0*
10:00:00	*0*	*209*	*6*	*215*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*265*	*7*	*272*	*0*
17:00:00	*0*	*371*	*19*	*390*	*0*
18:00:00	*0*	*287*	*5*	*292*	*0*
Totals:	0	1634	43	1677	1

North/South Total Approaches: 3813

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*36*	*199*	*0*	*235*	*0*
9:00:00	*52*	*262*	*0*	*314*	*1*
10:00:00	*46*	*190*	*0*	*236*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*103*	*277*	*0*	*380*	*0*
17:00:00	*124*	*353*	*0*	*477*	*0*
18:00:00	*150*	*344*	*0*	*494*	*0*
S Totals:	511	1625	0	2136	1

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*
9:00:00	*0*	*0*	*0*	*0*	*0*
10:00:00	*0*	*0*	*0*	*0*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*0*	*0*	*0*
18:00:00	*0*	*0*	*0*	*0*	*0*
Totals:	0	0	0	0	0

East/West Total Approaches: 659

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*10*	*0*	*110*	*120*	*0*
9:00:00	*14*	*0*	*129*	*143*	*0*
10:00:00	*7*	*0*	*101*	*108*	*0*
15:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*8*	*0*	*93*	*101*	*0*
17:00:00	*4*	*0*	*88*	*92*	*0*
18:00:00	*11*	*0*	*84*	*95*	*0*
W Totals:	54	0	605	659	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	*7:00*	*8:00*	*9:00*	*10:00*	*15:00*	*16:00*	*17:00*	*18:00*
Crossing Values:	*0*	*11*	*15*	*7*	*0*	*8*	*4*	*11*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 Site #: 1809300003

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Heavys - North Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		North Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	54	54	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0
7:30:00	0	0	113	59	1	1	0	0	1	1	0	0	0	0	2	0	0	0	0	0
7:45:00	0	0	207	94	1	0	0	0	2	1	0	0	0	0	3	1	0	0	0	0
8:00:00	0	0	277	70	2	1	0	0	2	0	0	0	0	0	4	1	0	0	1	1
8:15:00	0	0	330	53	2	0	0	0	2	0	0	0	0	0	5	1	0	0	1	0
8:30:00	0	0	390	60	4	2	0	0	2	0	0	0	0	0	5	0	0	0	1	0
8:45:00	0	0	438	48	5	1	0	0	2	0	0	0	0	0	8	3	0	0	1	0
9:00:00	0	0	488	50	6	1	0	0	2	0	0	0	0	0	12	4	0	0	1	0
9:15:00	0	0	534	46	10	4	0	0	3	1	0	0	0	0	19	7	0	0	1	0
9:30:00	0	0	584	50	10	0	0	0	3	0	0	0	0	0	20	1	0	0	1	0
9:45:00	0	0	632	48	12	2	0	0	3	0	0	0	0	0	20	0	0	0	1	0
10:00:00	0	0	687	55	12	0	0	0	4	1	0	0	0	0	20	0	0	0	1	0
10:15:00	0	0	687	0	12	0	0	0	4	0	0	0	0	0	20	0	0	0	1	0
15:00:00	0	0	687	0	12	0	0	0	4	0	0	0	0	0	20	0	0	0	1	0
15:15:00	0	0	749	62	13	1	0	0	4	0	0	0	0	0	25	5	1	1	1	0
15:30:00	0	0	805	56	15	2	0	0	5	1	0	0	0	0	27	2	1	0	1	0
15:45:00	0	0	865	60	16	1	0	0	6	1	0	0	0	0	36	9	1	0	1	0
16:00:00	0	0	928	63	18	2	0	0	11	5	0	0	0	0	37	1	1	0	1	0
16:15:00	0	0	999	71	20	2	0	0	14	3	0	0	0	0	37	0	1	0	1	0
16:30:00	0	0	1079	80	24	4	0	0	15	1	0	0	0	0	39	2	1	0	1	0
16:45:00	0	0	1188	109	30	6	0	0	17	2	0	0	0	0	41	2	1	0	1	0
17:00:00	0	0	1287	99	37	7	0	0	17	0	0	0	0	0	43	2	1	0	1	0
17:15:00	0	0	1375	88	40	3	0	0	17	0	0	0	0	0	45	2	1	0	1	0
17:30:00	0	0	1436	61	41	1	0	0	20	3	0	0	0	0	48	3	1	0	1	0
17:45:00	0	0	1503	67	42	1	0	0	20	0	0	0	0	0	48	0	1	0	1	0
18:00:00	0	0	1566	63	42	0	0	0	20	0	0	0	0	0	48	0	1	0	1	0
18:15:00	0	0	1566	0	42	0	0	0	20	0	0	0	0	0	48	0	1	0	1	0
18:15:15	0	0	1566	0	42	0	0	0	20	0	0	0	0	0	48	0	1	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300003**

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Heavys - East Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		East Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 4-Jul-18 **Site #: 1809300003**

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Heavys - South Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		South Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	8	8	36	36	0	0	0	0	1	1	0	0	0	0	9	9	0	0	0	0
7:30:00	13	5	76	40	0	0	0	0	1	0	0	0	2	2	15	6	0	0	0	0
7:45:00	18	5	114	38	0	0	1	1	3	2	0	0	3	1	20	5	0	0	0	0
8:00:00	31	13	171	57	0	0	1	0	4	1	0	0	4	1	24	4	0	0	0	0
8:15:00	39	8	225	54	0	0	1	0	5	1	0	0	4	0	36	12	0	0	1	1
8:30:00	48	9	299	74	0	0	1	0	7	2	0	0	4	0	38	2	0	0	1	0
8:45:00	65	17	352	53	0	0	1	0	8	1	0	0	4	0	39	1	0	0	1	0
9:00:00	83	18	407	55	0	0	1	0	11	3	0	0	4	0	43	4	0	0	1	0
9:15:00	103	20	440	33	0	0	2	1	14	3	0	0	5	1	45	2	0	0	1	0
9:30:00	110	7	489	49	0	0	2	0	15	1	0	0	5	0	48	3	0	0	1	0
9:45:00	115	5	528	39	0	0	2	0	18	3	0	0	5	0	52	4	0	0	1	0
10:00:00	127	12	578	50	0	0	2	0	18	0	0	0	5	0	55	3	0	0	1	0
10:15:00	127	0	578	0	0	0	2	0	18	0	0	0	5	0	55	0	0	0	1	0
15:00:00	127	0	578	0	0	0	2	0	18	0	0	0	5	0	55	0	0	0	1	0
15:15:00	156	29	638	60	0	0	2	0	19	1	0	0	6	1	61	6	0	0	1	0
15:30:00	179	23	692	54	0	0	2	0	19	0	0	0	6	0	65	4	0	0	1	0
15:45:00	203	24	760	68	0	0	2	0	20	1	0	0	7	1	67	2	0	0	1	0
16:00:00	228	25	841	81	0	0	2	0	20	0	0	0	7	0	67	0	0	0	1	0
16:15:00	256	28	926	85	0	0	2	0	20	0	0	0	7	0	69	2	0	0	1	0
16:30:00	284	28	1001	75	0	0	2	0	20	0	0	0	7	0	69	0	0	0	1	0
16:45:00	313	29	1094	93	0	0	2	0	21	1	0	0	10	3	69	0	0	0	1	0
17:00:00	349	36	1189	95	0	0	2	0	22	1	0	0	10	0	70	1	0	0	1	0
17:15:00	389	40	1274	85	0	0	2	0	22	0	0	0	10	0	71	1	0	0	1	0
17:30:00	430	41	1361	87	0	0	3	1	22	0	0	0	11	1	72	1	0	0	1	0
17:45:00	462	32	1437	76	0	0	3	0	23	1	0	0	11	0	72	0	0	0	1	0
18:00:00	497	35	1529	92	0	0	3	0	23	0	0	0	11	0	73	1	0	0	1	0
18:15:00	497	0	1529	0	0	0	3	0	23	0	0	0	11	0	73	0	0	0	1	0
18:15:15	497	0	1529	0	0	0	3	0	23	0	0	0	11	0	73	0	0	0	1	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

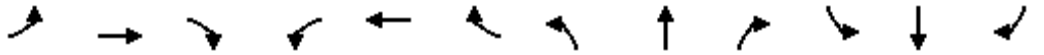
Count Date: 4-Jul-18 Site #: 1809300003

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Heavys - West Approach						Pedestrians	
	Left		Thru		Right		Left		Thru		Right		Left		Thru		Right		West Cross	
	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr	Cum	Incr
7:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15:00	3	3	0	0	24	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	6	3	0	0	47	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	8	2	0	0	88	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	10	2	0	0	110	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	16	6	0	0	141	31	0	0	0	0	0	0	0	0	0	0	1	1	0	0
8:30:00	23	7	0	0	181	40	0	0	0	0	0	0	0	0	0	0	2	1	0	0
8:45:00	24	1	0	0	210	29	0	0	0	0	0	0	0	0	0	0	2	0	0	0
9:00:00	24	0	0	0	236	26	0	0	0	0	0	0	0	0	0	0	3	1	0	0
9:15:00	24	0	0	0	260	24	0	0	0	0	0	0	0	0	0	0	3	0	0	0
9:30:00	26	2	0	0	287	27	0	0	0	0	0	0	1	1	0	0	3	0	0	0
9:45:00	29	3	0	0	313	26	0	0	0	0	0	0	1	0	0	0	6	3	0	0
10:00:00	30	1	0	0	333	20	0	0	0	0	0	0	1	0	0	0	7	1	0	0
10:15:00	30	0	0	0	333	0	0	0	0	0	0	0	1	0	0	0	7	0	0	0
15:00:00	30	0	0	0	333	0	0	0	0	0	0	0	1	0	0	0	7	0	0	0
15:15:00	31	1	0	0	352	19	0	0	0	0	0	0	1	0	0	0	7	0	0	0
15:30:00	32	1	0	0	380	28	0	0	0	0	0	0	1	0	0	0	7	0	0	0
15:45:00	35	3	0	0	404	24	0	0	0	0	0	0	1	0	0	0	7	0	0	0
16:00:00	38	3	0	0	425	21	0	0	0	0	1	1	1	0	0	0	7	0	0	0
16:15:00	38	0	0	0	444	19	0	0	0	0	1	0	1	0	0	0	7	0	0	0
16:30:00	42	4	0	0	462	18	0	0	0	0	1	0	1	0	0	0	7	0	0	0
16:45:00	42	0	0	0	491	29	0	0	0	0	1	0	1	0	0	0	7	0	0	0
17:00:00	42	0	0	0	513	22	0	0	0	0	1	0	1	0	0	0	7	0	0	0
17:15:00	44	2	0	0	531	18	0	0	0	0	1	0	1	0	0	0	8	1	0	0
17:30:00	45	1	0	0	551	20	0	0	0	0	1	0	1	0	0	0	9	1	0	0
17:45:00	48	3	0	0	578	27	0	0	0	0	1	0	1	0	0	0	9	0	0	0
18:00:00	53	5	0	0	595	17	0	0	0	0	1	0	1	0	0	0	9	0	0	0
18:15:00	53	0	0	0	595	0	0	0	0	0	1	0	1	0	0	0	9	0	0	0
18:15:15	53	0	0	0	595	0	0	0	0	0	1	0	1	0	0	0	9	0	0	0

Appendix B

Synchro Reports

2018 Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	31	56	59	165	59	47	27	633	79	28	734	23
Future Volume (veh/h)	31	56	59	165	59	47	27	633	79	28	734	23
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1803	1900
Adj Flow Rate, veh/h	34	61	64	179	64	51	29	688	86	30	798	25
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	201	91	96	278	221	176	410	1933	873	415	2130	67
Arrive On Green	0.12	0.12	0.12	0.08	0.23	0.23	0.57	0.57	0.57	0.03	0.63	0.63
Sat Flow, veh/h	1090	795	834	1774	956	762	650	3406	1538	1630	3391	106
Grp Volume(v), veh/h	34	0	125	179	0	115	29	688	86	30	403	420
Grp Sat Flow(s),veh/h/ln	1090	0	1629	1774	0	1718	650	1703	1538	1630	1713	1785
Q Serve(g_s), s	2.7	0.0	7.0	8.0	0.0	5.2	2.2	10.4	2.4	0.7	10.9	10.9
Cycle Q Clear(g_c), s	2.7	0.0	7.0	8.0	0.0	5.2	7.3	10.4	2.4	0.7	10.9	10.9
Prop In Lane	1.00		0.51	1.00		0.44	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	201	0	187	278	0	397	410	1933	873	415	1076	1121
V/C Ratio(X)	0.17	0.00	0.67	0.65	0.00	0.29	0.07	0.36	0.10	0.07	0.37	0.37
Avail Cap(c_a), veh/h	455	0	566	278	0	796	410	1933	873	479	1076	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	0.0	40.3	32.9	0.0	30.1	11.8	11.1	9.4	7.9	8.6	8.6
Incr Delay (d2), s/veh	0.4	0.0	4.0	5.1	0.0	0.4	0.3	0.5	0.2	0.1	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	0.0	3.4	1.0	0.0	2.5	0.4	5.0	1.1	0.3	5.3	5.5
LnGrp Delay(d),s/veh	38.8	0.0	44.3	38.0	0.0	30.5	12.1	11.6	9.6	8.0	9.6	9.6
LnGrp LOS	D		D	D		C	B	B	A	A	A	A
Approach Vol, veh/h		159			294			803			853	
Approach Delay, s/veh		43.2			35.1			11.4			9.5	
Approach LOS		D			D			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	5.7	60.8	11.0	17.4		66.6		28.4
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	2.7	12.4	10.0	9.0		12.9		7.2
Green Ext Time (p_c), s	0.0	9.2	0.0	2.0		13.4		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	16.3
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	2.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	65	18	272	66	78	337
Future Vol, veh/h	65	18	272	66	78	337
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	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	17	10	5	1	1
Mvmt Flow	71	20	296	72	85	366

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	832	296	0	0	368	0
Stage 1	296	-	-	-	-	-
Stage 2	536	-	-	-	-	-
Critical Hdwy	6.46	6.37	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.453	-	-	2.209	-
Pot Cap-1 Maneuver	334	709	-	-	1196	-
Stage 1	746	-	-	-	-	-
Stage 2	579	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	310	709	-	-	1196	-
Mov Cap-2 Maneuver	310	-	-	-	-	-
Stage 1	693	-	-	-	-	-
Stage 2	579	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	18.7	0	1.5
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	353	1196	-
HCM Lane V/C Ratio	-	-	0.256	0.071	-
HCM Control Delay (s)	-	-	18.7	8.2	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1	0.2	-

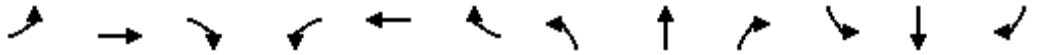
Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	17	136	38	252	281	3
Future Vol, veh/h	17	136	38	252	281	3
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	18	148	41	274	305	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	664	308	308	0	-	0
Stage 1	307	-	-	-	-	-
Stage 2	357	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	429	734	1219	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	713	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	414	733	1219	-	-	-
Mov Cap-2 Maneuver	414	-	-	-	-	-
Stage 1	725	-	-	-	-	-
Stage 2	713	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.1	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1219	-	675	-	-
HCM Lane V/C Ratio	0.034	-	0.246	-	-
HCM Control Delay (s)	8.1	-	12.1	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	74	53	140	50	43	51	929	195	54	744	41
Future Volume (veh/h)	44	74	53	140	50	43	51	929	195	54	744	41
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1837	1900	1881	1821	1900	1900	1863	1881	1863	1838	1900
Adj Flow Rate, veh/h	48	80	58	152	54	47	55	1010	212	59	809	45
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	219	120	87	282	213	186	405	1942	877	317	2092	116
Arrive On Green	0.12	0.12	0.12	0.08	0.24	0.24	0.55	0.55	0.55	0.04	0.62	0.62
Sat Flow, veh/h	1184	991	719	1792	900	783	656	3539	1598	1774	3364	187
Grp Volume(v), veh/h	48	0	138	152	0	101	55	1010	212	59	420	434
Grp Sat Flow(s),veh/h/ln	1184	0	1710	1792	0	1683	656	1770	1598	1774	1746	1805
Q Serve(g_s), s	3.5	0.0	7.3	6.8	0.0	4.6	4.3	17.1	6.6	1.3	11.4	11.4
Cycle Q Clear(g_c), s	3.5	0.0	7.3	6.8	0.0	4.6	8.8	17.1	6.6	1.3	11.4	11.4
Prop In Lane	1.00		0.42	1.00		0.47	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	219	0	207	282	0	399	405	1942	877	317	1086	1122
V/C Ratio(X)	0.22	0.00	0.67	0.54	0.00	0.25	0.14	0.52	0.24	0.19	0.39	0.39
Avail Cap(c_a), veh/h	487	0	594	282	0	779	405	1942	877	365	1086	1122
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.2	0.0	39.9	31.6	0.0	29.4	12.8	13.5	11.2	9.6	8.9	8.9
Incr Delay (d2), s/veh	0.5	0.0	3.6	2.0	0.0	0.3	0.7	1.0	0.7	0.3	1.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	0.0	3.7	3.5	0.0	2.2	0.9	8.5	3.0	0.6	5.8	6.0
LnGrp Delay(d),s/veh	38.7	0.0	43.5	33.6	0.0	29.7	13.5	14.5	11.8	9.9	10.0	9.9
LnGrp LOS	D		D	C		C	B	B	B	A	A	A
Approach Vol, veh/h		186			253			1277			913	
Approach Delay, s/veh		42.3			32.1			14.0			10.0	
Approach LOS		D			C			B			A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	6.9	59.0	11.0	18.0		66.0		29.0
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.3	19.1	8.8	9.3		13.4		6.6
Green Ext Time (p_c), s	0.0	7.6	0.0	2.2		13.7		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	81	86	432	92	46	419
Future Vol, veh/h	81	86	432	92	46	419
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	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	6	1	7	4	3
Mvmt Flow	88	93	470	100	50	455

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1025	470	0	0	570	0
Stage 1	470	-	-	-	-	-
Stage 2	555	-	-	-	-	-
Critical Hdwy	6.45	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	257	585	-	-	993	-
Stage 1	623	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	244	585	-	-	993	-
Mov Cap-2 Maneuver	244	-	-	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	569	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	26	0	0.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	349	993	-
HCM Lane V/C Ratio	-	-	0.52	0.05	-
HCM Control Delay (s)	-	-	26	8.8	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	2.9	0.2	-

Intersection	
Int Delay, s/veh	2.5

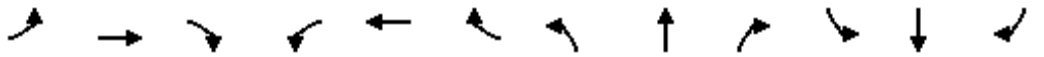
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	91	151	365	371	17
Future Vol, veh/h	3	91	151	365	371	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	3	99	164	397	403	18

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1137	412	421	0	-	0
Stage 1	412	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	225	640	1133	-	-	-
Stage 1	673	-	-	-	-	-
Stage 2	483	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	192	640	1133	-	-	-
Mov Cap-2 Maneuver	192	-	-	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	483	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1133	-	596	-	-
HCM Lane V/C Ratio	0.145	-	0.171	-	-
HCM Control Delay (s)	8.7	-	12.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.6	-	-

2019 Background Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	34	58	65	172	61	49	30	653	82	29	757	25
Future Volume (veh/h)	34	58	65	172	61	49	30	653	82	29	757	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1803	1900
Adj Flow Rate, veh/h	37	63	71	187	66	53	33	710	89	32	823	27
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	208	93	105	279	227	182	392	1905	860	401	2102	69
Arrive On Green	0.12	0.12	0.12	0.08	0.24	0.24	0.56	0.56	0.56	0.03	0.62	0.62
Sat Flow, veh/h	1087	763	860	1774	953	765	634	3406	1538	1630	3385	111
Grp Volume(v), veh/h	37	0	134	187	0	119	33	710	89	32	416	434
Grp Sat Flow(s),veh/h/ln	1087	0	1624	1774	0	1718	634	1703	1538	1630	1713	1783
Q Serve(g_s), s	2.9	0.0	7.5	8.0	0.0	5.4	2.6	11.0	2.6	0.7	11.6	11.6
Cycle Q Clear(g_c), s	2.9	0.0	7.5	8.0	0.0	5.4	8.3	11.0	2.6	0.7	11.6	11.6
Prop In Lane	1.00		0.53	1.00		0.45	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	208	0	198	279	0	409	392	1905	860	401	1064	1108
V/C Ratio(X)	0.18	0.00	0.68	0.67	0.00	0.29	0.08	0.37	0.10	0.08	0.39	0.39
Avail Cap(c_a), veh/h	453	0	564	279	0	796	392	1905	860	463	1064	1108
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	39.9	32.9	0.0	29.6	12.6	11.6	9.8	8.3	9.0	9.0
Incr Delay (d2), s/veh	0.4	0.0	4.0	6.1	0.0	0.4	0.4	0.6	0.2	0.1	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.6	1.4	0.0	2.6	0.5	5.3	1.1	0.3	5.8	6.0
LnGrp Delay(d),s/veh	38.3	0.0	43.9	39.0	0.0	30.0	13.0	12.2	10.0	8.4	10.1	10.1
LnGrp LOS	D		D	D		C	B	B	B	A	B	B
Approach Vol, veh/h		171			306			832			882	
Approach Delay, s/veh		42.7			35.5			12.0			10.0	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	5.9	60.0	11.0	18.1		65.9		29.1
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	2.7	13.0	10.0	9.5		13.6		7.4
Green Ext Time (p_c), s	0.0	9.2	0.0	2.1		13.6		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	71	20	282	72	85	350
Future Vol, veh/h	71	20	282	72	85	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	17	10	5	1	1
Mvmt Flow	77	22	307	78	92	380

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	871	307	0	0	385	0
Stage 1	307	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Critical Hdwy	6.46	6.37	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.453	-	-	2.209	-
Pot Cap-1 Maneuver	316	699	-	-	1179	-
Stage 1	737	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	291	699	-	-	1179	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	562	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	334	1179	-
HCM Lane V/C Ratio	-	-	0.296	0.078	-
HCM Control Delay (s)	-	-	20.3	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.3	-

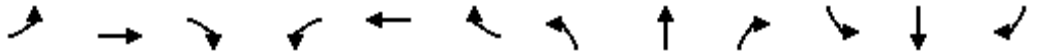
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	142	40	262	292	3
Future Vol, veh/h	18	142	40	262	292	3
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	20	154	43	285	317	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	691	320	320	0	-	0
Stage 1	319	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	413	723	1207	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	398	722	1207	-	-	-
Mov Cap-2 Maneuver	398	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1207	-	661	-	-
HCM Lane V/C Ratio	0.036	-	0.263	-	-
HCM Control Delay (s)	8.1	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	48	77	58	146	52	45	56	958	203	56	768	45
Future Volume (veh/h)	48	77	58	146	52	45	56	958	203	56	768	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1837	1900	1881	1821	1900	1900	1863	1881	1863	1838	1900
Adj Flow Rate, veh/h	52	84	63	159	57	49	61	1041	221	61	835	49
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	227	125	94	284	221	190	387	1917	865	304	2062	121
Arrive On Green	0.13	0.13	0.13	0.08	0.24	0.24	0.54	0.54	0.54	0.04	0.62	0.62
Sat Flow, veh/h	1179	976	732	1792	906	778	638	3539	1598	1774	3352	197
Grp Volume(v), veh/h	52	0	147	159	0	106	61	1041	221	61	435	449
Grp Sat Flow(s),veh/h/ln	1179	0	1708	1792	0	1684	638	1770	1598	1774	1746	1803
Q Serve(g_s), s	3.8	0.0	7.8	7.1	0.0	4.8	5.1	18.1	7.0	1.3	12.1	12.1
Cycle Q Clear(g_c), s	3.8	0.0	7.8	7.1	0.0	4.8	10.3	18.1	7.0	1.3	12.1	12.1
Prop In Lane	1.00		0.43	1.00		0.46	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	227	0	219	284	0	410	387	1917	865	304	1074	1109
V/C Ratio(X)	0.23	0.00	0.67	0.56	0.00	0.26	0.16	0.54	0.26	0.20	0.40	0.40
Avail Cap(c_a), veh/h	485	0	593	284	0	780	387	1917	865	351	1074	1109
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.8	0.0	39.5	31.2	0.0	29.0	13.8	14.1	11.6	10.2	9.4	9.4
Incr Delay (d2), s/veh	0.5	0.0	3.6	2.5	0.0	0.3	0.9	1.1	0.7	0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	3.9	3.6	0.0	2.3	1.0	9.1	3.2	0.7	6.1	6.3
LnGrp Delay(d),s/veh	38.3	0.0	43.1	33.7	0.0	29.3	14.7	15.3	12.3	10.5	10.5	10.5
LnGrp LOS	D		D	C		C	B	B	B	B	B	B
Approach Vol, veh/h		199			265			1323			945	
Approach Delay, s/veh		41.8			32.0			14.7			10.5	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.0	58.3	11.0	18.7		65.3		29.7
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.3	20.1	9.1	9.8		14.1		6.8
Green Ext Time (p_c), s	0.0	6.9	0.0	2.4		13.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	88	94	449	100	50	435
Future Vol, veh/h	88	94	449	100	50	435
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	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	6	1	7	4	3
Mvmt Flow	96	102	488	109	54	473

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1069	488	0	0	597	0
Stage 1	488	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	6.45	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	242	572	-	-	970	-
Stage 1	611	-	-	-	-	-
Stage 2	553	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	228	572	-	-	970	-
Mov Cap-2 Maneuver	228	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	553	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	30.8	0	0.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	331	970	-
HCM Lane V/C Ratio	-	-	0.598	0.056	-
HCM Control Delay (s)	-	-	30.8	8.9	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.7	0.2	-

Intersection	
Int Delay, s/veh	2.5

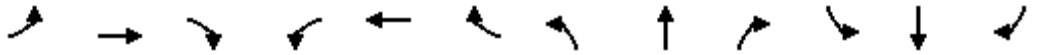
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	95	157	379	386	18
Future Vol, veh/h	3	95	157	379	386	18
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	3	103	171	412	420	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1184	430	440	0	-	0
Stage 1	430	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	211	625	1115	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	468	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	179	625	1115	-	-	-
Mov Cap-2 Maneuver	179	-	-	-	-	-
Stage 1	559	-	-	-	-	-
Stage 2	468	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1115	-	581	-	-
HCM Lane V/C Ratio	0.153	-	0.183	-	-
HCM Control Delay (s)	8.8	-	12.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.7	-	-

2023 Background Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	68	92	201	72	57	42	740	96	34	858	36
Future Volume (veh/h)	49	68	92	201	72	57	42	740	96	34	858	36
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1801	1900
Adj Flow Rate, veh/h	53	74	100	218	78	62	46	804	104	37	933	39
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	239	105	142	286	257	204	320	1791	809	343	1976	83
Arrive On Green	0.15	0.15	0.15	0.08	0.27	0.27	0.53	0.53	0.53	0.03	0.59	0.59
Sat Flow, veh/h	1066	686	927	1774	957	761	565	3406	1538	1630	3348	140
Grp Volume(v), veh/h	53	0	174	218	0	140	46	804	104	37	477	495
Grp Sat Flow(s),veh/h/ln	1066	0	1612	1774	0	1718	565	1703	1538	1630	1711	1777
Q Serve(g_s), s	4.2	0.0	9.7	8.0	0.0	6.2	4.8	13.9	3.3	0.9	15.0	15.0
Cycle Q Clear(g_c), s	4.2	0.0	9.7	8.0	0.0	6.2	13.7	13.9	3.3	0.9	15.0	15.0
Prop In Lane	1.00		0.57	1.00		0.44	1.00		1.00	1.00		0.08
Lane Grp Cap(c), veh/h	239	0	247	286	0	462	320	1791	809	343	1010	1049
V/C Ratio(X)	0.22	0.00	0.71	0.76	0.00	0.30	0.14	0.45	0.13	0.11	0.47	0.47
Avail Cap(c_a), veh/h	446	0	560	286	0	796	320	1791	809	401	1010	1049
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.9	0.0	38.2	32.8	0.0	27.7	16.7	14.0	11.5	10.0	11.1	11.1
Incr Delay (d2), s/veh	0.5	0.0	3.7	11.4	0.0	0.4	0.9	0.8	0.3	0.1	1.6	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	4.6	2.7	0.0	3.0	0.8	6.7	1.5	0.4	7.5	7.7
LnGrp Delay(d),s/veh	36.3	0.0	41.9	44.2	0.0	28.0	17.6	14.8	11.8	10.2	12.6	12.6
LnGrp LOS	D		D	D		C	B	B	B	B	B	B
Approach Vol, veh/h		227			358			954			1009	
Approach Delay, s/veh		40.6			37.9			14.6			12.5	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	6.1	56.9	11.0	21.0		63.0		32.0
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	2.9	15.9	10.0	11.7		17.0		8.2
Green Ext Time (p_c), s	0.0	8.6	0.0	2.8		13.7		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	19.4
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	99	28	328	101	119	406
Future Vol, veh/h	99	28	328	101	119	406
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	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	17	10	5	1	1
Mvmt Flow	108	30	357	110	129	441

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1056	357	0	0	467	0
Stage 1	357	-	-	-	-	-
Stage 2	699	-	-	-	-	-
Critical Hdwy	6.46	6.37	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.453	-	-	2.209	-
Pot Cap-1 Maneuver	245	655	-	-	1100	-
Stage 1	699	-	-	-	-	-
Stage 2	486	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	216	655	-	-	1100	-
Mov Cap-2 Maneuver	216	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	486	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	35.1	0	2
HCM LOS	E		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	253	1100	-
HCM Lane V/C Ratio	-	-	0.546	0.118	-
HCM Control Delay (s)	-	-	35.1	8.7	-
HCM Lane LOS	-	-	E	A	-
HCM 95th %tile Q(veh)	-	-	3	0.4	-

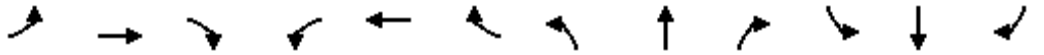
Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	167	47	306	341	4
Future Vol, veh/h	21	167	47	306	341	4
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	23	182	51	333	371	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	809	374	375	0	-	0
Stage 1	373	-	-	-	-	-
Stage 2	436	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	353	674	1151	-	-	-
Stage 1	701	-	-	-	-	-
Stage 2	656	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	337	673	1151	-	-	-
Mov Cap-2 Maneuver	337	-	-	-	-	-
Stage 1	670	-	-	-	-	-
Stage 2	656	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.9	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1151	-	606	-	-
HCM Lane V/C Ratio	0.044	-	0.337	-	-
HCM Control Delay (s)	8.3	-	13.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	69	90	83	170	61	52	80	1085	237	66	869	64
Future Volume (veh/h)	69	90	83	170	61	52	80	1085	237	66	869	64
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1836	1900	1881	1821	1900	1900	1863	1881	1863	1836	1900
Adj Flow Rate, veh/h	75	98	90	185	66	57	87	1179	258	72	945	70
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	260	140	129	291	248	214	311	1799	812	252	1925	143
Arrive On Green	0.16	0.16	0.16	0.08	0.27	0.27	0.51	0.51	0.51	0.04	0.58	0.58
Sat Flow, veh/h	1161	883	811	1792	903	780	564	3539	1597	1774	3293	244
Grp Volume(v), veh/h	75	0	188	185	0	123	87	1179	258	72	501	514
Grp Sat Flow(s),veh/h/ln	1161	0	1693	1792	0	1684	564	1770	1597	1774	1744	1793
Q Serve(g_s), s	5.5	0.0	10.0	8.0	0.0	5.4	10.1	23.3	9.0	1.7	15.9	15.9
Cycle Q Clear(g_c), s	5.5	0.0	10.0	8.0	0.0	5.4	18.7	23.3	9.0	1.7	15.9	15.9
Prop In Lane	1.00		0.48	1.00		0.46	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	260	0	268	291	0	462	311	1799	812	252	1020	1048
V/C Ratio(X)	0.29	0.00	0.70	0.64	0.00	0.27	0.28	0.66	0.32	0.29	0.49	0.49
Avail Cap(c_a), veh/h	479	0	588	291	0	780	311	1799	812	294	1020	1048
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.0	0.0	37.8	29.7	0.0	27.0	19.1	17.2	13.7	13.2	11.5	11.5
Incr Delay (d2), s/veh	0.6	0.0	3.3	4.5	0.0	0.3	2.2	1.9	1.0	0.6	1.7	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.9	4.3	0.0	2.6	1.8	11.8	4.2	0.9	8.0	8.2
LnGrp Delay(d),s/veh	36.6	0.0	41.1	34.2	0.0	27.3	21.3	19.1	14.7	13.8	13.2	13.1
LnGrp LOS	D		D	C		C	C	B	B	B	B	B
Approach Vol, veh/h		263			308			1524			1087	
Approach Delay, s/veh		39.8			31.4			18.5			13.2	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.3	55.2	11.0	21.6		62.4		32.6
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.7	25.3	10.0	12.0		17.9		7.4
Green Ext Time (p_c), s	0.1	2.6	0.0	3.1		13.8		2.1

Intersection Summary	
HCM 2010 Ctrl Delay	19.7
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	21.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	124	131	521	141	70	505
Future Vol, veh/h	124	131	521	141	70	505
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	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	6	1	7	4	3
Mvmt Flow	135	142	566	153	76	549

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1267	566	0	0	719	0
Stage 1	566	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Critical Hdwy	6.45	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	184	516	-	-	873	-
Stage 1	562	-	-	-	-	-
Stage 2	487	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	168	516	-	-	873	-
Mov Cap-2 Maneuver	168	-	-	-	-	-
Stage 1	513	-	-	-	-	-
Stage 2	487	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	121	0	1.2
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	257	873	-
HCM Lane V/C Ratio	-	-	1.078	0.087	-
HCM Control Delay (s)	-	-	121	9.5	-
HCM Lane LOS	-	-	F	A	-
HCM 95th %tile Q(veh)	-	-	11.5	0.3	-

Intersection	
Int Delay, s/veh	2.8

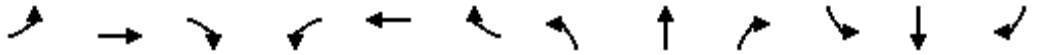
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	112	185	443	450	21
Future Vol, veh/h	4	112	185	443	450	21
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	4	122	201	482	489	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1385	501	512	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	884	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	160	570	1048	-	-	-
Stage 1	613	-	-	-	-	-
Stage 2	407	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	129	570	1048	-	-	-
Mov Cap-2 Maneuver	129	-	-	-	-	-
Stage 1	495	-	-	-	-	-
Stage 2	407	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.4	2.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1048	-	510	-	-
HCM Lane V/C Ratio	0.192	-	0.247	-	-
HCM Control Delay (s)	9.2	-	14.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.7	-	1	-	-

2028 Background Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	83	144	244	87	69	66	864	117	41	1002	56
Future Volume (veh/h)	76	83	144	244	87	69	66	864	117	41	1002	56
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1799	1900
Adj Flow Rate, veh/h	83	90	157	265	95	75	72	939	127	45	1089	61
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	290	120	210	294	310	244	222	1595	720	264	1766	99
Arrive On Green	0.21	0.21	0.21	0.08	0.32	0.32	0.47	0.47	0.47	0.04	0.54	0.54
Sat Flow, veh/h	1037	582	1015	1774	960	758	477	3406	1538	1630	3291	184
Grp Volume(v), veh/h	83	0	247	265	0	170	72	939	127	45	565	585
Grp Sat Flow(s),veh/h/ln	1037	0	1597	1774	0	1719	477	1703	1538	1630	1709	1766
Q Serve(g_s), s	6.6	0.0	13.8	8.0	0.0	7.1	11.7	19.2	4.5	1.3	21.8	21.8
Cycle Q Clear(g_c), s	6.6	0.0	13.8	8.0	0.0	7.1	27.0	19.2	4.5	1.3	21.8	21.8
Prop In Lane	1.00		0.64	1.00		0.44	1.00		1.00	1.00		0.10
Lane Grp Cap(c), veh/h	290	0	330	294	0	554	222	1595	720	264	917	948
V/C Ratio(X)	0.29	0.00	0.75	0.90	0.00	0.31	0.32	0.59	0.18	0.17	0.62	0.62
Avail Cap(c_a), veh/h	436	0	555	294	0	796	222	1595	720	316	917	948
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.5	0.0	35.4	32.3	0.0	24.2	26.8	18.5	14.6	13.6	15.2	15.3
Incr Delay (d2), s/veh	0.5	0.0	3.4	28.4	0.0	0.3	3.8	1.6	0.5	0.3	3.1	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.9	0.0	6.4	7.6	0.0	3.4	1.8	9.4	2.0	0.6	11.0	11.3
LnGrp Delay(d),s/veh	33.0	0.0	38.8	60.7	0.0	24.5	30.7	20.1	15.2	13.9	18.3	18.3
LnGrp LOS	C		D	E		C	C	C	B	B	B	B
Approach Vol, veh/h		330			435			1138			1195	
Approach Delay, s/veh		37.3			46.6			20.2			18.1	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	6.5	51.4	11.0	26.1		57.9		37.1
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.3	29.0	10.0	15.8		23.8		9.1
Green Ext Time (p_c), s	0.0	0.0	0.0	3.8		11.2		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	27.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	152	42	396	154	182	490
Future Vol, veh/h	152	42	396	154	182	490
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	500	0	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	17	10	5	1	1
Mvmt Flow	165	46	430	167	198	533

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1359	430	0	0	597	0
Stage 1	430	-	-	-	-	-
Stage 2	929	-	-	-	-	-
Critical Hdwy	6.46	6.37	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.453	-	-	2.209	-
Pot Cap-1 Maneuver	~ 161	595	-	-	985	-
Stage 1	648	-	-	-	-	-
Stage 2	378	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 129	595	-	-	985	-
Mov Cap-2 Maneuver	~ 129	-	-	-	-	-
Stage 1	518	-	-	-	-	-
Stage 2	378	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	188.8	0	2.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	129	595	985	-
HCM Lane V/C Ratio	-	-	1.281	0.077	0.201	-
HCM Control Delay (s)	-	-	237.8	11.6	9.6	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	10.5	0.2	0.7	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

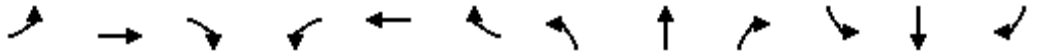
Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	204	57	371	414	5
Future Vol, veh/h	26	204	57	371	414	5
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	28	222	62	403	450	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	981	454	455	0	-	0
Stage 1	453	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	279	608	1075	-	-	-
Stage 1	645	-	-	-	-	-
Stage 2	596	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	263	607	1075	-	-	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	596	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	17.8	1.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1075	-	529	-	-
HCM Lane V/C Ratio	0.058	-	0.473	-	-
HCM Control Delay (s)	8.6	-	17.8	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2.5	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	109	130	207	74	64	125	1268	288	80	1016	100
Future Volume (veh/h)	108	109	130	207	74	64	125	1268	288	80	1016	100
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1835	1900	1881	1821	1900	1900	1863	1881	1863	1833	1900
Adj Flow Rate, veh/h	117	118	141	225	80	70	136	1378	313	87	1104	109
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	285	150	179	243	262	229	239	1856	838	199	1894	187
Arrive On Green	0.20	0.20	0.20	0.07	0.29	0.29	0.52	0.52	0.52	0.04	0.59	0.59
Sat Flow, veh/h	1132	763	911	1792	897	785	468	3539	1597	1774	3203	316
Grp Volume(v), veh/h	117	0	259	225	0	150	136	1378	313	87	600	613
Grp Sat Flow(s),veh/h/ln	1132	0	1674	1792	0	1683	468	1770	1597	1774	1742	1777
Q Serve(g_s), s	10.6	0.0	16.9	8.0	0.0	8.0	29.4	34.9	13.3	2.5	24.7	24.8
Cycle Q Clear(g_c), s	10.6	0.0	16.9	8.0	0.0	8.0	46.5	34.9	13.3	2.5	24.7	24.8
Prop In Lane	1.00		0.54	1.00		0.47	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	285	0	329	243	0	491	239	1856	838	199	1030	1051
V/C Ratio(X)	0.41	0.00	0.79	0.93	0.00	0.31	0.57	0.74	0.37	0.44	0.58	0.58
Avail Cap(c_a), veh/h	388	0	480	243	0	644	239	1856	838	227	1030	1051
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	41.4	0.0	43.9	41.0	0.0	31.6	31.6	21.3	16.2	19.0	14.6	14.7
Incr Delay (d2), s/veh	0.9	0.0	5.3	38.2	0.0	0.3	9.5	2.7	1.3	1.5	2.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	8.3	8.1	0.0	3.8	4.4	17.5	6.1	1.3	12.5	12.8
LnGrp Delay(d),s/veh	42.3	0.0	49.2	79.2	0.0	32.0	41.1	24.0	17.4	20.5	17.0	17.0
LnGrp LOS	D		D	E		C	D	C	B	C	B	B
Approach Vol, veh/h		376			375			1827			1300	
Approach Delay, s/veh		47.1			60.3			24.2			17.3	
Approach LOS		D			E			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.7	67.2	11.0	29.1		74.9		40.1
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	48.1	8.0	33.0		57.6		44.0
Max Q Clear Time (g_c+I1), s	4.5	48.5	10.0	18.9		26.8		10.0
Green Ext Time (p_c), s	0.1	0.0	0.0	3.7		22.6		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	59.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	189	201	628	215	107	610
Future Vol, veh/h	189	201	628	215	107	610
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	500	0	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	6	1	7	4	3
Mvmt Flow	205	218	683	234	116	663

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1578	683	0	0	917	0
Stage 1	683	-	-	-	-	-
Stage 2	895	-	-	-	-	-
Critical Hdwy	6.45	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	~ 118	442	-	-	736	-
Stage 1	496	-	-	-	-	-
Stage 2	394	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	~ 99	442	-	-	736	-
Mov Cap-2 Maneuver	~ 99	-	-	-	-	-
Stage 1	418	-	-	-	-	-
Stage 2	394	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	295.4	0	1.6
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	99	442	736	-
HCM Lane V/C Ratio	-	-	2.075	0.494	0.158	-
HCM Control Delay (s)	-	-	$ 587.4	20.8	10.8	-
HCM Lane LOS	-	-	F	C	B	-
HCM 95th %tile Q(veh)	-	-	17.7	2.7	0.6	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	3.3

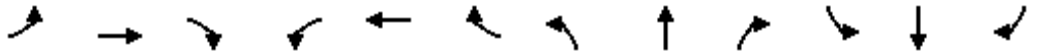
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	137	227	537	546	26
Future Vol, veh/h	5	137	227	537	546	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	5	149	247	584	593	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1685	607	621	0	-	0
Stage 1	607	-	-	-	-	-
Stage 2	1078	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	105	496	955	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	78	496	955	-	-	-
Mov Cap-2 Maneuver	78	-	-	-	-	-
Stage 1	406	-	-	-	-	-
Stage 2	330	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	955	-	417	-	-
HCM Lane V/C Ratio	0.258	-	0.37	-	-
HCM Control Delay (s)	10.1	-	18.6	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1	-	1.7	-	-

2033 Background Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	97	194	287	103	82	89	968	137	49	1123	75
Future Volume (veh/h)	102	97	194	287	103	82	89	968	137	49	1123	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1797	1900
Adj Flow Rate, veh/h	111	105	211	312	112	89	97	1052	149	53	1221	82
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	307	127	255	329	369	293	142	1461	660	199	1600	107
Arrive On Green	0.24	0.24	0.24	0.12	0.39	0.39	0.43	0.43	0.43	0.04	0.49	0.49
Sat Flow, veh/h	1008	528	1061	1774	957	761	413	3406	1538	1630	3247	218
Grp Volume(v), veh/h	111	0	316	312	0	201	97	1052	149	53	641	662
Grp Sat Flow(s),veh/h/ln	1008	0	1589	1774	0	1718	413	1703	1538	1630	1707	1758
Q Serve(g_s), s	10.3	0.0	20.8	13.0	0.0	9.0	20.5	28.1	6.7	1.9	33.6	33.7
Cycle Q Clear(g_c), s	10.3	0.0	20.8	13.0	0.0	9.0	47.2	28.1	6.7	1.9	33.6	33.7
Prop In Lane	1.00		0.67	1.00		0.44	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	307	0	381	329	0	662	142	1461	660	199	841	866
V/C Ratio(X)	0.36	0.00	0.83	0.95	0.00	0.30	0.68	0.72	0.23	0.27	0.76	0.76
Avail Cap(c_a), veh/h	368	0	477	329	0	765	142	1461	660	236	841	866
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.7	0.0	39.7	31.1	0.0	23.5	46.9	25.9	19.9	19.9	22.7	22.7
Incr Delay (d2), s/veh	0.7	0.0	9.6	35.8	0.0	0.3	23.2	3.1	0.8	0.7	6.5	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	10.1	6.4	0.0	4.3	3.9	13.8	3.0	0.9	17.2	17.7
LnGrp Delay(d),s/veh	36.4	0.0	49.3	66.9	0.0	23.8	70.1	29.0	20.6	20.6	29.1	29.0
LnGrp LOS	D		D	E		C	E	C	C	C	C	C
Approach Vol, veh/h		427			513			1298			1356	
Approach Delay, s/veh		45.9			50.0			31.1			28.8	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.0	54.1	16.0	32.9		61.1		48.9
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	38.1	13.0	33.0		47.6		49.0
Max Q Clear Time (g_c+I1), s	3.9	49.2	15.0	22.8		35.7		11.0
Green Ext Time (p_c), s	0.0	0.0	0.0	3.6		10.4		3.7

Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	201	56	450	204	241	558
Future Volume (veh/h)	201	56	450	204	241	558
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1624	1727	1810	1881	1881
Adj Flow Rate, veh/h	218	61	489	222	262	607
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	17	10	5	1	1
Cap, veh/h	284	229	884	787	505	1217
Arrive On Green	0.17	0.17	0.51	0.51	0.09	0.65
Sat Flow, veh/h	1707	1380	1727	1538	1792	1881
Grp Volume(v), veh/h	218	61	489	222	262	607
Grp Sat Flow(s),veh/h/ln	1707	1380	1727	1538	1792	1881
Q Serve(g_s), s	8.5	2.7	13.5	5.8	4.4	11.8
Cycle Q Clear(g_c), s	8.5	2.7	13.5	5.8	4.4	11.8
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	284	229	884	787	505	1217
V/C Ratio(X)	0.77	0.27	0.55	0.28	0.52	0.50
Avail Cap(c_a), veh/h	537	434	884	787	519	1217
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.9	25.5	11.6	9.8	8.2	6.5
Incr Delay (d2), s/veh	4.4	0.6	2.5	0.9	0.9	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.3	1.1	7.0	2.6	2.2	6.6
LnGrp Delay(d),s/veh	32.3	26.1	14.1	10.7	9.0	7.9
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	279		711			869
Approach Delay, s/veh	30.9		13.0			8.3
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.5	42.1				51.6		18.4
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	7.0	* 25				* 35		22.0
Max Q Clear Time (g_c+I1), s	6.4	15.5				13.8		10.5
Green Ext Time (p_c), s	0.1	5.2				9.7		1.1

Intersection Summary	
HCM 2010 Ctrl Delay	13.5
HCM 2010 LOS	B

Notes

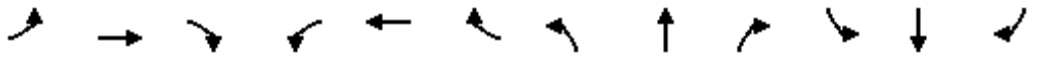
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	239	67	423	471	5
Future Vol, veh/h	30	239	67	423	471	5
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	33	260	73	460	512	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1122	516	517	0	-	0
Stage 1	515	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	230	561	1019	-	-	-
Stage 1	604	-	-	-	-	-
Stage 2	548	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	213	560	1019	-	-	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	561	-	-	-	-	-
Stage 2	548	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	24.1	1.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1019	-	474	-	-
HCM Lane V/C Ratio	0.071	-	0.617	-	-
HCM Control Delay (s)	8.8	-	24.1	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	4.1	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	129	174	243	87	75	167	1421	339	94	1138	135
Future Volume (veh/h)	144	129	174	243	87	75	167	1421	339	94	1138	135
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1834	1900	1881	1821	1900	1900	1863	1881	1863	1831	1900
Adj Flow Rate, veh/h	152	136	183	256	92	79	176	1496	357	99	1198	142
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	296	155	209	195	272	233	200	1913	863	172	1884	223
Arrive On Green	0.22	0.22	0.22	0.06	0.30	0.30	0.54	0.54	0.54	0.04	0.60	0.60
Sat Flow, veh/h	1111	710	956	1792	906	778	414	3539	1598	1774	3135	371
Grp Volume(v), veh/h	152	0	319	256	0	171	176	1496	357	99	663	677
Grp Sat Flow(s),veh/h/ln	1111	0	1666	1792	0	1684	414	1770	1598	1774	1740	1766
Q Serve(g_s), s	16.7	0.0	25.0	8.0	0.0	10.7	47.6	45.4	17.9	3.2	33.2	33.5
Cycle Q Clear(g_c), s	16.7	0.0	25.0	8.0	0.0	10.7	73.0	45.4	17.9	3.2	33.2	33.5
Prop In Lane	1.00		0.57	1.00		0.46	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	296	0	364	195	0	505	200	1913	863	172	1045	1061
V/C Ratio(X)	0.51	0.00	0.88	1.31	0.00	0.34	0.88	0.78	0.41	0.58	0.63	0.64
Avail Cap(c_a), veh/h	325	0	407	195	0	549	200	1913	863	189	1045	1061
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	0.0	51.0	47.8	0.0	36.8	47.7	24.7	18.4	25.6	17.4	17.4
Incr Delay (d2), s/veh	1.4	0.0	17.6	172.3	0.0	0.4	38.9	3.3	1.5	3.5	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.3	0.0	13.3	12.6	0.0	5.0	8.7	22.9	8.2	2.2	16.7	17.0
LnGrp Delay(d),s/veh	49.1	0.0	68.6	220.1	0.0	37.2	86.6	28.0	19.8	29.2	20.3	20.4
LnGrp LOS	D		E	F		D	F	C	B	C	C	C
Approach Vol, veh/h		471			427			2029			1439	
Approach Delay, s/veh		62.3			146.9			31.6			21.0	
Approach LOS		E			F			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	8.2	79.9	11.0	36.0		88.0		47.0
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	68.1	8.0	33.0		77.6		44.0
Max Q Clear Time (g_c+I1), s	5.2	75.0	10.0	27.0		35.5		12.7
Green Ext Time (p_c), s	0.0	0.0	0.0	2.5		31.5		2.9

Intersection Summary	
HCM 2010 Ctrl Delay	42.7
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	250	266	715	284	142	693
Future Volume (veh/h)	250	266	715	284	142	693
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1792	1881	1776	1827	1845
Adj Flow Rate, veh/h	263	280	753	299	149	729
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	1	7	4	3
Cap, veh/h	381	337	972	780	298	1135
Arrive On Green	0.22	0.22	0.52	0.52	0.06	0.62
Sat Flow, veh/h	1723	1524	1881	1509	1740	1845
Grp Volume(v), veh/h	263	280	753	299	149	729
Grp Sat Flow(s),veh/h/ln	1723	1524	1881	1509	1740	1845
Q Serve(g_s), s	11.2	14.0	25.8	9.6	3.0	20.1
Cycle Q Clear(g_c), s	11.2	14.0	25.8	9.6	3.0	20.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	381	337	972	780	298	1135
V/C Ratio(X)	0.69	0.83	0.77	0.38	0.50	0.64
Avail Cap(c_a), veh/h	474	419	972	780	333	1135
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	29.7	15.6	11.7	13.7	9.8
Incr Delay (d2), s/veh	3.1	11.0	6.0	1.4	1.3	2.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.7	6.9	14.8	4.3	1.7	11.0
LnGrp Delay(d),s/veh	31.8	40.8	21.6	13.1	15.0	12.6
LnGrp LOS	C	D	C	B	B	B
Approach Vol, veh/h	543		1052			878
Approach Delay, s/veh	36.4		19.2			13.0
Approach LOS	D		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	7.9	47.6				55.5		24.5
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	6.5	* 35				* 45		22.0
Max Q Clear Time (g_c+I1), s	5.0	27.8				22.1		16.0
Green Ext Time (p_c), s	0.1	5.9				12.6		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	160	266	612	622	30
Future Vol, veh/h	5	160	266	612	622	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	5	168	280	644	655	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1875	671	687	0	-	0
Stage 1	671	-	-	-	-	-
Stage 2	1204	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	80	456	902	-	-	-
Stage 1	512	-	-	-	-	-
Stage 2	287	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	55	456	902	-	-	-
Mov Cap-2 Maneuver	55	-	-	-	-	-
Stage 1	353	-	-	-	-	-
Stage 2	287	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	22.8	3.3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	902	-	373	-	-
HCM Lane V/C Ratio	0.31	-	0.466	-	-
HCM Control Delay (s)	10.8	-	22.8	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.3	-	2.4	-	-

2038 Background Traffic Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	109	206	322	115	92	94	1019	154	55	1182	80
Future Volume (veh/h)	108	109	206	322	115	92	94	1019	154	55	1182	80
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1797	1900
Adj Flow Rate, veh/h	114	115	217	339	121	97	99	1073	162	58	1244	84
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	378	134	254	354	303	243	158	1382	624	182	1279	86
Arrive On Green	0.06	0.24	0.24	0.14	0.32	0.32	0.05	0.41	0.41	0.04	0.39	0.39
Sat Flow, veh/h	1521	551	1041	1774	953	764	1740	3406	1538	1630	3246	219
Grp Volume(v), veh/h	114	0	332	339	0	218	99	1073	162	58	653	675
Grp Sat Flow(s),veh/h/ln	1521	0	1592	1774	0	1718	1740	1703	1538	1630	1707	1758
Q Serve(g_s), s	6.2	0.0	21.9	15.0	0.0	10.9	3.7	30.1	7.7	2.3	41.3	41.5
Cycle Q Clear(g_c), s	6.2	0.0	21.9	15.0	0.0	10.9	3.7	30.1	7.7	2.3	41.3	41.5
Prop In Lane	1.00		0.65	1.00		0.44	1.00		1.00	1.00		0.12
Lane Grp Cap(c), veh/h	378	0	388	354	0	545	158	1382	624	182	673	693
V/C Ratio(X)	0.30	0.00	0.86	0.96	0.00	0.40	0.63	0.78	0.26	0.32	0.97	0.97
Avail Cap(c_a), veh/h	378	0	478	354	0	642	175	1382	624	216	673	693
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.6	0.0	39.7	28.7	0.0	29.3	26.5	28.4	21.7	22.8	32.7	32.8
Incr Delay (d2), s/veh	0.4	0.0	12.0	36.7	0.0	0.5	5.9	4.3	1.0	1.0	28.4	28.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	10.9	6.5	0.0	5.2	2.0	15.0	3.4	1.1	24.7	25.5
LnGrp Delay(d),s/veh	29.1	0.0	51.8	65.4	0.0	29.8	32.4	32.7	22.7	23.8	61.1	61.2
LnGrp LOS	C		D	E		C	C	C	C	C	E	E
Approach Vol, veh/h		446			557			1334			1386	
Approach Delay, s/veh		46.0			51.5			31.5			59.6	
Approach LOS		D			D			C			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	51.5	18.0	33.3	8.4	50.2	9.9	41.4
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5	3.0	6.9	3.0	6.5
Max Green Setting (Gmax), s	6.5	36.1	15.0	33.0	6.5	36.1	6.9	41.1
Max Q Clear Time (g_c+I1), s	4.3	32.1	17.0	23.9	5.7	43.5	8.2	12.9
Green Ext Time (p_c), s	0.0	3.6	0.0	2.9	0.0	0.0	0.0	3.7

Intersection Summary	
HCM 2010 Ctrl Delay	46.7
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	214	59	469	218	257	581
Future Volume (veh/h)	214	59	469	218	257	581
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1624	1727	1810	1881	1881
Adj Flow Rate, veh/h	225	62	494	229	271	612
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	17	10	5	1	1
Cap, veh/h	291	235	871	776	498	1208
Arrive On Green	0.17	0.17	0.50	0.50	0.10	0.64
Sat Flow, veh/h	1707	1380	1727	1538	1792	1881
Grp Volume(v), veh/h	225	62	494	229	271	612
Grp Sat Flow(s),veh/h/ln	1707	1380	1727	1538	1792	1881
Q Serve(g_s), s	8.8	2.7	13.9	6.1	4.6	12.1
Cycle Q Clear(g_c), s	8.8	2.7	13.9	6.1	4.6	12.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	291	235	871	776	498	1208
V/C Ratio(X)	0.77	0.26	0.57	0.30	0.54	0.51
Avail Cap(c_a), veh/h	537	434	871	776	507	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	25.2	12.0	10.1	8.6	6.6
Incr Delay (d2), s/veh	4.4	0.6	2.7	1.0	1.2	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.1	7.2	2.8	2.3	6.6
LnGrp Delay(d),s/veh	32.1	25.8	14.7	11.1	9.7	8.2
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	287		723			883
Approach Delay, s/veh	30.7		13.6			8.6
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.7	41.6				51.3		18.7
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	7.0	* 25				* 35		22.0
Max Q Clear Time (g_c+I1), s	6.6	15.9				14.1		10.8
Green Ext Time (p_c), s	0.1	5.0				9.7		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	13.9
HCM 2010 LOS	B

Notes

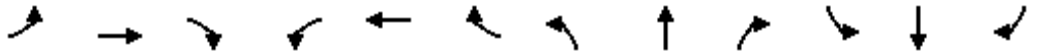
Intersection	
Int Delay, s/veh	6.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	262	73	439	489	6
Future Vol, veh/h	33	262	73	439	489	6
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	35	276	77	462	515	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1135	519	521	0	-	0
Stage 1	518	-	-	-	-	-
Stage 2	617	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	226	559	1015	-	-	-
Stage 1	602	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	209	558	1015	-	-	-
Mov Cap-2 Maneuver	209	-	-	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.3	1.3	0
HCM LOS	D		

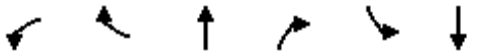
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1015	-	470	-	-
HCM Lane V/C Ratio	0.076	-	0.661	-	-
HCM Control Delay (s)	8.8	-	26.3	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.2	-	4.7	-	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	153	144	185	273	98	84	178	1496	381	105	1198	143
Future Volume (veh/h)	153	144	185	273	98	84	178	1496	381	105	1198	143
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1835	1900	1881	1822	1900	1900	1863	1881	1863	1831	1900
Adj Flow Rate, veh/h	161	152	195	287	103	88	187	1575	401	111	1261	151
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	330	176	226	230	225	192	221	1669	753	161	1408	168
Arrive On Green	0.06	0.24	0.24	0.07	0.25	0.25	0.07	0.47	0.47	0.05	0.45	0.45
Sat Flow, veh/h	1630	731	938	1792	908	776	1810	3539	1597	1774	3131	373
Grp Volume(v), veh/h	161	0	347	287	0	191	187	1575	401	111	698	714
Grp Sat Flow(s),veh/h/ln	1630	0	1669	1792	0	1685	1810	1770	1597	1774	1740	1765
Q Serve(g_s), s	7.2	0.0	22.9	8.0	0.0	11.1	6.2	48.7	20.4	3.8	42.4	43.0
Cycle Q Clear(g_c), s	7.2	0.0	22.9	8.0	0.0	11.1	6.2	48.7	20.4	3.8	42.4	43.0
Prop In Lane	1.00		0.56	1.00		0.46	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	330	0	402	230	0	417	221	1669	753	161	782	794
V/C Ratio(X)	0.49	0.00	0.86	1.25	0.00	0.46	0.85	0.94	0.53	0.69	0.89	0.90
Avail Cap(c_a), veh/h	330	0	479	230	0	495	230	1669	753	173	782	794
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	33.1	0.0	41.9	39.9	0.0	36.7	25.5	28.9	21.4	26.7	29.1	29.2
Incr Delay (d2), s/veh	1.1	0.0	13.3	141.7	0.0	0.8	23.4	12.2	2.7	10.1	14.7	15.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	0.0	12.1	12.4	0.0	5.2	4.5	26.5	9.6	2.3	23.6	24.2
LnGrp Delay(d),s/veh	34.2	0.0	55.1	181.6	0.0	37.5	49.0	41.2	24.1	36.8	43.8	44.4
LnGrp LOS	C		E	F		D	D	D	C	D	D	D
Approach Vol, veh/h		508			478			2163			1523	
Approach Delay, s/veh		48.5			124.0			38.7			43.6	
Approach LOS		D			F			D			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.7	61.1	11.0	34.2	11.2	58.6	10.2	35.0
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5	3.0	6.9	3.0	6.5
Max Green Setting (Gmax), s	6.5	48.1	8.0	33.0	8.8	45.8	7.2	33.8
Max Q Clear Time (g_c+I1), s	5.8	50.7	10.0	24.9	8.2	45.0	9.2	13.1
Green Ext Time (p_c), s	0.0	0.0	0.0	2.8	0.1	0.8	0.0	2.7

Intersection Summary	
HCM 2010 Ctrl Delay	50.1
HCM 2010 LOS	D



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	267	284	744	303	152	722
Future Volume (veh/h)	267	284	744	303	152	722
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1792	1881	1776	1827	1845
Adj Flow Rate, veh/h	281	299	783	319	160	760
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	1	7	4	3
Cap, veh/h	400	353	943	757	277	1115
Arrive On Green	0.23	0.23	0.50	0.50	0.07	0.60
Sat Flow, veh/h	1723	1524	1881	1509	1740	1845
Grp Volume(v), veh/h	281	299	783	319	160	760
Grp Sat Flow(s),veh/h/ln	1723	1524	1881	1509	1740	1845
Q Serve(g_s), s	12.0	15.0	28.4	10.7	3.3	22.2
Cycle Q Clear(g_c), s	12.0	15.0	28.4	10.7	3.3	22.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	400	353	943	757	277	1115
V/C Ratio(X)	0.70	0.85	0.83	0.42	0.58	0.68
Avail Cap(c_a), veh/h	474	419	943	757	304	1115
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	29.4	17.0	12.6	15.8	10.7
Incr Delay (d2), s/veh	3.7	13.0	8.4	1.7	2.3	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	7.5	16.8	4.8	2.0	12.2
LnGrp Delay(d),s/veh	31.9	42.3	25.4	14.3	18.0	14.0
LnGrp LOS	C	D	C	B	B	B
Approach Vol, veh/h	580		1102			920
Approach Delay, s/veh	37.3		22.2			14.7
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.2	46.4				54.6		25.4
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	6.5	* 35				* 45		22.0
Max Q Clear Time (g_c+I1), s	5.3	30.4				24.2		17.0
Green Ext Time (p_c), s	0.1	4.1				12.3		1.6

Intersection Summary	
HCM 2010 Ctrl Delay	22.9
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	4.7

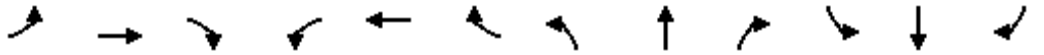
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	175	291	635	646	33
Future Vol, veh/h	6	175	291	635	646	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	6	184	306	668	680	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1978	698	715	0	-	0
Stage 1	698	-	-	-	-	-
Stage 2	1280	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	69	440	881	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	264	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	45	440	881	-	-	-
Mov Cap-2 Maneuver	45	-	-	-	-	-
Stage 1	325	-	-	-	-	-
Stage 2	264	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28.1	3.5	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	881	-	341	-	-
HCM Lane V/C Ratio	0.348	-	0.559	-	-
HCM Control Delay (s)	11.2	-	28.1	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	1.6	-	3.2	-	-

2019 Background Traffic plus Site Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	59	65	172	61	49	30	653	82	29	757	25
Future Volume (veh/h)	35	59	65	172	61	49	30	653	82	29	757	25
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1853	1900	1827	1792	1810	1712	1803	1900
Adj Flow Rate, veh/h	38	64	71	187	66	53	33	710	89	32	823	27
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	209	95	105	279	227	183	391	1903	859	400	2100	69
Arrive On Green	0.12	0.12	0.12	0.08	0.24	0.24	0.56	0.56	0.56	0.03	0.62	0.62
Sat Flow, veh/h	1087	770	855	1774	953	765	634	3406	1538	1630	3385	111
Grp Volume(v), veh/h	38	0	135	187	0	119	33	710	89	32	416	434
Grp Sat Flow(s),veh/h/ln	1087	0	1625	1774	0	1718	634	1703	1538	1630	1713	1783
Q Serve(g_s), s	3.0	0.0	7.6	8.0	0.0	5.4	2.6	11.0	2.6	0.7	11.6	11.6
Cycle Q Clear(g_c), s	3.0	0.0	7.6	8.0	0.0	5.4	8.4	11.0	2.6	0.7	11.6	11.6
Prop In Lane	1.00		0.53	1.00		0.45	1.00		1.00	1.00		0.06
Lane Grp Cap(c), veh/h	209	0	200	279	0	410	391	1903	859	400	1062	1106
V/C Ratio(X)	0.18	0.00	0.68	0.67	0.00	0.29	0.08	0.37	0.10	0.08	0.39	0.39
Avail Cap(c_a), veh/h	453	0	564	279	0	796	391	1903	859	463	1062	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	39.9	32.8	0.0	29.6	12.6	11.7	9.8	8.3	9.0	9.0
Incr Delay (d2), s/veh	0.4	0.0	4.0	6.0	0.0	0.4	0.4	0.6	0.2	0.1	1.1	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	0.0	3.6	1.4	0.0	2.6	0.5	5.3	1.1	0.3	5.8	6.0
LnGrp Delay(d),s/veh	38.3	0.0	43.8	38.9	0.0	30.0	13.0	12.2	10.1	8.4	10.1	10.1
LnGrp LOS	D		D	D		C	B	B	B	A	B	B
Approach Vol, veh/h		173			306			832			882	
Approach Delay, s/veh		42.6			35.4			12.0			10.1	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	5.9	60.0	11.0	18.2		65.8		29.2
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	2.7	13.0	10.0	9.6		13.6		7.4
Green Ext Time (p_c), s	0.0	9.2	0.0	2.1		13.6		2.0

Intersection Summary	
HCM 2010 Ctrl Delay	16.9
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	2.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	71	20	282	72	85	350
Future Vol, veh/h	71	20	282	72	85	350
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	17	10	5	1	1
Mvmt Flow	77	22	307	78	92	380

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	871	307	0	0	385	0
Stage 1	307	-	-	-	-	-
Stage 2	564	-	-	-	-	-
Critical Hdwy	6.46	6.37	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.453	-	-	2.209	-
Pot Cap-1 Maneuver	316	699	-	-	1179	-
Stage 1	737	-	-	-	-	-
Stage 2	562	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	291	699	-	-	1179	-
Mov Cap-2 Maneuver	291	-	-	-	-	-
Stage 1	680	-	-	-	-	-
Stage 2	562	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.3	0	1.6
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	334	1179	-
HCM Lane V/C Ratio	-	-	0.296	0.078	-
HCM Control Delay (s)	-	-	20.3	8.3	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	1.2	0.3	-

Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	18	142	40	262	292	3
Future Vol, veh/h	18	142	40	262	292	3
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	20	154	43	285	317	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	691	320	320	0	-	0
Stage 1	319	-	-	-	-	-
Stage 2	372	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	413	723	1207	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	702	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	398	722	1207	-	-	-
Mov Cap-2 Maneuver	398	-	-	-	-	-
Stage 1	714	-	-	-	-	-
Stage 2	702	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1207	-	661	-	-
HCM Lane V/C Ratio	0.036	-	0.263	-	-
HCM Control Delay (s)	8.1	-	12.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.1	-	-

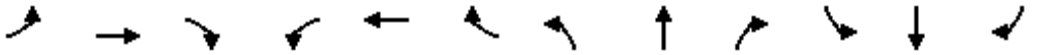
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	157	116	1	1	1
Future Vol, veh/h	0	157	116	1	1	1
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	0	171	126	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	127	0	-	0	298	127
Stage 1	-	-	-	-	127	-
Stage 2	-	-	-	-	171	-
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	1459	-	-	-	693	923
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	859	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1459	-	-	-	693	923
Mov Cap-2 Maneuver	-	-	-	-	693	-
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	859	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.6
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1459	-	-	-	792
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	9.6
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	78	59	146	52	45	56	958	203	56	768	45
Future Volume (veh/h)	50	78	59	146	52	45	56	958	203	56	768	45
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1837	1900	1881	1821	1900	1900	1863	1881	1863	1838	1900
Adj Flow Rate, veh/h	54	85	64	159	57	49	61	1041	221	61	835	49
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	228	126	95	284	222	191	386	1911	863	303	2057	121
Arrive On Green	0.13	0.13	0.13	0.08	0.25	0.25	0.54	0.54	0.54	0.04	0.61	0.61
Sat Flow, veh/h	1179	974	733	1792	906	778	638	3539	1598	1774	3352	197
Grp Volume(v), veh/h	54	0	149	159	0	106	61	1041	221	61	435	449
Grp Sat Flow(s),veh/h/ln	1179	0	1708	1792	0	1684	638	1770	1598	1774	1746	1803
Q Serve(g_s), s	4.0	0.0	7.9	7.1	0.0	4.8	5.2	18.2	7.0	1.3	12.2	12.2
Cycle Q Clear(g_c), s	4.0	0.0	7.9	7.1	0.0	4.8	10.3	18.2	7.0	1.3	12.2	12.2
Prop In Lane	1.00		0.43	1.00		0.46	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	228	0	221	284	0	413	386	1911	863	303	1071	1106
V/C Ratio(X)	0.24	0.00	0.67	0.56	0.00	0.26	0.16	0.54	0.26	0.20	0.41	0.41
Avail Cap(c_a), veh/h	485	0	593	284	0	780	386	1911	863	350	1071	1106
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	37.7	0.0	39.4	31.1	0.0	28.9	13.9	14.2	11.7	10.2	9.4	9.4
Incr Delay (d2), s/veh	0.5	0.0	3.5	2.5	0.0	0.3	0.9	1.1	0.7	0.3	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	0.0	3.9	3.6	0.0	2.3	1.0	9.1	3.2	0.7	6.1	6.3
LnGrp Delay(d),s/veh	38.2	0.0	43.0	33.6	0.0	29.2	14.8	15.4	12.4	10.6	10.6	10.5
LnGrp LOS	D		D	C		C	B	B	B	B	B	B
Approach Vol, veh/h		203			265			1323			945	
Approach Delay, s/veh		41.7			31.8			14.8			10.6	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.0	58.2	11.0	18.8		65.2		29.8
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.3	20.2	9.1	9.9		14.2		6.8
Green Ext Time (p_c), s	0.0	6.8	0.0	2.4		13.8		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.0
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	89	95	449	100	51	435
Future Vol, veh/h	89	95	449	100	51	435
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	-	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	5	6	1	7	4	3
Mvmt Flow	97	103	488	109	55	473

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1071	488	0	0	597	0
Stage 1	488	-	-	-	-	-
Stage 2	583	-	-	-	-	-
Critical Hdwy	6.45	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	241	572	-	-	970	-
Stage 1	611	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	227	572	-	-	970	-
Mov Cap-2 Maneuver	227	-	-	-	-	-
Stage 1	576	-	-	-	-	-
Stage 2	552	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	31.3	0	0.9
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	330	970	-
HCM Lane V/C Ratio	-	-	0.606	0.057	-
HCM Control Delay (s)	-	-	31.3	8.9	-
HCM Lane LOS	-	-	D	A	-
HCM 95th %tile Q(veh)	-	-	3.8	0.2	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	95	158	380	386	18
Future Vol, veh/h	3	95	158	380	386	18
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	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	3	103	172	413	420	20

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1187	430	440	0	-	0
Stage 1	430	-	-	-	-	-
Stage 2	757	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	210	625	1115	-	-	-
Stage 1	660	-	-	-	-	-
Stage 2	467	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	178	625	1115	-	-	-
Mov Cap-2 Maneuver	178	-	-	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	467	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1115	-	580	-	-
HCM Lane V/C Ratio	0.154	-	0.184	-	-
HCM Control Delay (s)	8.8	-	12.6	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.7	-	-

Intersection	
Int Delay, s/veh	0.1

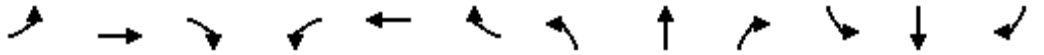
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	183	153	1	3	2
Future Vol, veh/h	1	183	153	1	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	199	166	1	3	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	167	0	-	0	368	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	201	-
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	1411	-	-	-	632	877
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	833	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1411	-	-	-	631	877
Mov Cap-2 Maneuver	-	-	-	-	631	-
Stage 1	-	-	-	-	862	-
Stage 2	-	-	-	-	833	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1411	-	-	-	711
HCM Lane V/C Ratio	0.001	-	-	-	0.008
HCM Control Delay (s)	7.6	0	-	-	10.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

2023 Background Traffic plus Site Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	72	97	201	79	57	50	740	96	34	858	51
Future Volume (veh/h)	57	72	97	201	79	57	50	740	96	34	858	51
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1852	1900	1827	1792	1810	1712	1798	1900
Adj Flow Rate, veh/h	62	78	105	218	86	62	54	804	104	37	933	55
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	245	110	148	288	276	199	308	1767	798	337	1912	113
Arrive On Green	0.16	0.16	0.16	0.08	0.28	0.28	0.52	0.52	0.52	0.03	0.58	0.58
Sat Flow, veh/h	1058	687	925	1774	1002	723	557	3406	1538	1630	3279	193
Grp Volume(v), veh/h	62	0	183	218	0	148	54	804	104	37	486	502
Grp Sat Flow(s),veh/h/ln	1058	0	1612	1774	0	1725	557	1703	1538	1630	1708	1764
Q Serve(g_s), s	5.0	0.0	10.2	8.0	0.0	6.5	5.9	14.1	3.3	0.9	15.7	15.7
Cycle Q Clear(g_c), s	5.0	0.0	10.2	8.0	0.0	6.5	15.6	14.1	3.3	0.9	15.7	15.7
Prop In Lane	1.00		0.57	1.00		0.42	1.00		1.00	1.00		0.11
Lane Grp Cap(c), veh/h	245	0	258	288	0	476	308	1767	798	337	996	1029
V/C Ratio(X)	0.25	0.00	0.71	0.76	0.00	0.31	0.18	0.46	0.13	0.11	0.49	0.49
Avail Cap(c_a), veh/h	443	0	560	288	0	799	308	1767	798	395	996	1029
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.6	0.0	37.8	32.3	0.0	27.3	17.9	14.4	11.8	10.3	11.5	11.5
Incr Delay (d2), s/veh	0.5	0.0	3.6	11.0	0.0	0.4	1.2	0.8	0.3	0.1	1.7	1.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	0.0	4.8	2.7	0.0	3.1	1.0	6.8	1.5	0.4	7.8	8.0
LnGrp Delay(d),s/veh	36.1	0.0	41.4	43.2	0.0	27.6	19.1	15.2	12.1	10.5	13.2	13.2
LnGrp LOS	D		D	D		C	B	B	B	B	B	B
Approach Vol, veh/h		245			366			962			1025	
Approach Delay, s/veh		40.1			36.9			15.1			13.1	
Approach LOS		D			D			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	6.1	56.2	11.0	21.7		62.3		32.7
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	2.9	17.6	10.0	12.2		17.7		8.5
Green Ext Time (p_c), s	0.0	7.7	0.0	3.0		13.6		2.6

Intersection Summary	
HCM 2010 Ctrl Delay	19.8
HCM 2010 LOS	B

Intersection	
Int Delay, s/veh	5.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	104	35	328	108	132	406
Future Vol, veh/h	104	35	328	108	132	406
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	300	0	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	6	17	10	5	1	1
Mvmt Flow	113	38	357	117	143	441

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1084	357	0	0	474	0
Stage 1	357	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Critical Hdwy	6.46	6.37	-	-	4.11	-
Critical Hdwy Stg 1	5.46	-	-	-	-	-
Critical Hdwy Stg 2	5.46	-	-	-	-	-
Follow-up Hdwy	3.554	3.453	-	-	2.209	-
Pot Cap-1 Maneuver	236	655	-	-	1093	-
Stage 1	699	-	-	-	-	-
Stage 2	471	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	205	655	-	-	1093	-
Mov Cap-2 Maneuver	205	-	-	-	-	-
Stage 1	607	-	-	-	-	-
Stage 2	471	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	34.3	0	2.2
HCM LOS	D		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	205	655	1093	-
HCM Lane V/C Ratio	-	-	0.551	0.058	0.131	-
HCM Control Delay (s)	-	-	42.2	10.8	8.8	-
HCM Lane LOS	-	-	E	B	A	-
HCM 95th %tile Q(veh)	-	-	2.9	0.2	0.5	-

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	21	172	49	310	348	4
Future Vol, veh/h	21	172	49	310	348	4
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	23	187	53	337	378	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	824	381	382	0	-	0
Stage 1	380	-	-	-	-	-
Stage 2	444	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	346	668	1144	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	651	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	330	667	1144	-	-	-
Mov Cap-2 Maneuver	330	-	-	-	-	-
Stage 1	664	-	-	-	-	-
Stage 2	651	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	1.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1144	-	600	-	-
HCM Lane V/C Ratio	0.047	-	0.35	-	-
HCM Control Delay (s)	8.3	-	14.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	1.6	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	14	210	151	30	16	7
Future Vol, veh/h	14	210	151	30	16	7
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	15	228	164	33	17	8

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	197	0	-	0	439	181
Stage 1	-	-	-	-	181	-
Stage 2	-	-	-	-	258	-
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	1376	-	-	-	575	862
Stage 1	-	-	-	-	850	-
Stage 2	-	-	-	-	785	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1376	-	-	-	568	862
Mov Cap-2 Maneuver	-	-	-	-	568	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	785	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	10.9
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1376	-	-	-	634
HCM Lane V/C Ratio	0.011	-	-	-	0.039
HCM Control Delay (s)	7.6	0	-	-	10.9
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	223	158	0	0	3
Future Vol, veh/h	6	223	158	0	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	242	172	0	0	3

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	172	0	-	0	428	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	256	-
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	1405	-	-	-	584	872
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	787	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1405	-	-	-	580	872
Mov Cap-2 Maneuver	-	-	-	-	580	-
Stage 1	-	-	-	-	853	-
Stage 2	-	-	-	-	787	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.1
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1405	-	-	-	872
HCM Lane V/C Ratio	0.005	-	-	-	0.004
HCM Control Delay (s)	7.6	0	-	-	9.1
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

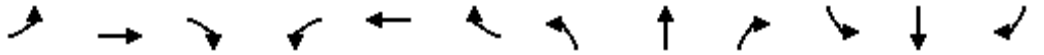
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	223	157	1	1	1
Future Vol, veh/h	0	223	157	1	1	1
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	0	242	171	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	172	0	-	0	414	172
Stage 1	-	-	-	-	172	-
Stage 2	-	-	-	-	242	-
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	1405	-	-	-	595	872
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1405	-	-	-	595	872
Mov Cap-2 Maneuver	-	-	-	-	595	-
Stage 1	-	-	-	-	858	-
Stage 2	-	-	-	-	798	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	10.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1405	-	-	-	707
HCM Lane V/C Ratio	-	-	-	-	0.003
HCM Control Delay (s)	0	-	-	-	10.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	106	83	170	76	52	95	1085	237	66	869	95
Future Volume (veh/h)	102	106	83	170	76	52	95	1085	237	66	869	95
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1837	1900	1881	1826	1900	1900	1863	1881	1863	1832	1900
Adj Flow Rate, veh/h	111	115	90	185	83	57	103	1179	258	72	945	103
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	272	164	129	296	290	199	289	1752	791	245	1810	197
Arrive On Green	0.17	0.17	0.17	0.08	0.29	0.29	0.50	0.50	0.50	0.04	0.57	0.57
Sat Flow, veh/h	1143	956	748	1792	1010	694	547	3539	1597	1774	3167	345
Grp Volume(v), veh/h	111	0	205	185	0	140	103	1179	258	72	519	529
Grp Sat Flow(s),veh/h/ln	1143	0	1705	1792	0	1704	547	1770	1597	1774	1741	1771
Q Serve(g_s), s	8.5	0.0	10.8	7.9	0.0	6.1	13.5	24.0	9.2	1.8	17.3	17.3
Cycle Q Clear(g_c), s	8.5	0.0	10.8	7.9	0.0	6.1	23.5	24.0	9.2	1.8	17.3	17.3
Prop In Lane	1.00		0.44	1.00		0.41	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	272	0	293	296	0	490	289	1752	791	245	995	1012
V/C Ratio(X)	0.41	0.00	0.70	0.63	0.00	0.29	0.36	0.67	0.33	0.29	0.52	0.52
Avail Cap(c_a), veh/h	473	0	592	296	0	789	289	1752	791	287	995	1012
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.1	0.0	37.0	28.7	0.0	26.3	21.8	18.2	14.4	13.9	12.4	12.4
Incr Delay (d2), s/veh	1.0	0.0	3.0	4.1	0.0	0.3	3.4	2.1	1.1	0.7	2.0	1.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.8	0.0	5.3	4.2	0.0	2.9	2.3	12.1	4.3	0.9	8.8	8.9
LnGrp Delay(d),s/veh	37.1	0.0	40.1	32.8	0.0	26.6	25.3	20.2	15.5	14.6	14.4	14.4
LnGrp LOS	D		D	C		C	C	C	B	B	B	B
Approach Vol, veh/h		316			325			1540			1120	
Approach Delay, s/veh		39.0			30.1			19.8			14.4	
Approach LOS		D			C			B			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.3	53.9	11.0	22.8		61.2		33.8
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.8	26.0	9.9	12.8		19.3		8.1
Green Ext Time (p_c), s	0.1	2.0	0.0	3.6		13.3		2.4

Intersection Summary	
HCM 2010 Ctrl Delay	20.8
HCM 2010 LOS	C

Intersection	
Int Delay, s/veh	11.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	140	159	521	156	96	505
Future Vol, veh/h	140	159	521	156	96	505
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	500	0	-	200	150	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	5	6	1	7	4	3
Mvmt Flow	147	167	548	164	101	532

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	1282	548	0	0	712	0
Stage 1	548	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Critical Hdwy	6.45	6.26	-	-	4.14	-
Critical Hdwy Stg 1	5.45	-	-	-	-	-
Critical Hdwy Stg 2	5.45	-	-	-	-	-
Follow-up Hdwy	3.545	3.354	-	-	2.236	-
Pot Cap-1 Maneuver	180	529	-	-	878	-
Stage 1	573	-	-	-	-	-
Stage 2	470	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	159	529	-	-	878	-
Mov Cap-2 Maneuver	159	-	-	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	470	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	59.3	0	1.5
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	WBLn2	SBL	SBT
Capacity (veh/h)	-	-	159	529	878	-
HCM Lane V/C Ratio	-	-	0.927	0.316	0.115	-
HCM Control Delay (s)	-	-	109.7	14.9	9.6	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	6.7	1.3	0.4	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	122	196	459	465	21
Future Vol, veh/h	4	122	196	459	465	21
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	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	4	133	213	499	505	23

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1442	517	528	0	-	0
Stage 1	517	-	-	-	-	-
Stage 2	925	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	147	558	1034	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	389	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	117	558	1034	-	-	-
Mov Cap-2 Maneuver	117	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	389	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.9	2.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1034	-	498	-	-
HCM Lane V/C Ratio	0.206	-	0.275	-	-
HCM Control Delay (s)	9.4	-	14.9	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.8	-	1.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	28	245	206	60	63	30
Future Vol, veh/h	28	245	206	60	63	30
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	30	266	224	65	68	33

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	289	0	-	0	583	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	326	-
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	1273	-	-	-	475	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1273	-	-	-	462	782
Mov Cap-2 Maneuver	-	-	-	-	462	-
Stage 1	-	-	-	-	764	-
Stage 2	-	-	-	-	731	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	13.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1273	-	-	-	532
HCM Lane V/C Ratio	0.024	-	-	-	0.19
HCM Control Delay (s)	7.9	0	-	-	13.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	270	234	1	3	2
Future Vol, veh/h	1	270	234	1	3	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	1	293	254	1	3	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	255	0	-	0	550	255
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	295	-
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	1310	-	-	-	496	784
Stage 1	-	-	-	-	788	-
Stage 2	-	-	-	-	755	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1310	-	-	-	496	784
Mov Cap-2 Maneuver	-	-	-	-	496	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	755	-

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

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1310	-	-	-	581
HCM Lane V/C Ratio	0.001	-	-	-	0.009
HCM Control Delay (s)	7.8	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection	
Int Delay, s/veh	0.4

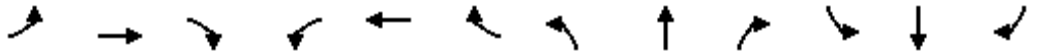
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	270	236	0	0	13
Future Vol, veh/h	12	270	236	0	0	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	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	13	293	257	0	0	14

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	257	0	-	0	576	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	319	-
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	1308	-	-	-	479	782
Stage 1	-	-	-	-	786	-
Stage 2	-	-	-	-	737	-
Platoon blocked, %			-	-		
Mov Cap-1 Maneuver	1308	-	-	-	473	782
Mov Cap-2 Maneuver	-	-	-	-	473	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	737	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1308	-	-	-	782
HCM Lane V/C Ratio	0.01	-	-	-	0.018
HCM Control Delay (s)	7.8	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

2028 Background Traffic plus Site Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	87	88	150	244	96	69	75	864	117	41	1002	75
Future Volume (veh/h)	87	88	150	244	96	69	75	864	117	41	1002	75
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1852	1900	1827	1792	1810	1712	1795	1900
Adj Flow Rate, veh/h	95	96	163	265	104	75	82	939	127	45	1089	82
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	297	127	216	296	332	239	210	1566	707	259	1698	128
Arrive On Green	0.22	0.22	0.22	0.08	0.33	0.33	0.46	0.46	0.46	0.04	0.53	0.53
Sat Flow, veh/h	1029	592	1006	1774	1002	723	468	3406	1538	1630	3216	242
Grp Volume(v), veh/h	95	0	259	265	0	179	82	939	127	45	577	594
Grp Sat Flow(s),veh/h/ln	1029	0	1598	1774	0	1725	468	1703	1538	1630	1705	1752
Q Serve(g_s), s	7.6	0.0	14.4	8.0	0.0	7.4	14.4	19.5	4.6	1.3	22.9	23.0
Cycle Q Clear(g_c), s	7.6	0.0	14.4	8.0	0.0	7.4	30.9	19.5	4.6	1.3	22.9	23.0
Prop In Lane	1.00		0.63	1.00		0.42	1.00		1.00	1.00		0.14
Lane Grp Cap(c), veh/h	297	0	344	296	0	571	210	1566	707	259	900	925
V/C Ratio(X)	0.32	0.00	0.75	0.90	0.00	0.31	0.39	0.60	0.18	0.17	0.64	0.64
Avail Cap(c_a), veh/h	433	0	555	296	0	799	210	1566	707	310	900	925
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.2	0.0	34.9	31.8	0.0	23.7	29.4	19.1	15.1	14.1	16.0	16.0
Incr Delay (d2), s/veh	0.6	0.0	3.3	27.5	0.0	0.3	5.4	1.7	0.6	0.3	3.5	3.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	0.0	6.7	5.3	0.0	3.5	2.2	9.5	2.1	0.6	11.6	11.9
LnGrp Delay(d),s/veh	32.8	0.0	38.3	59.3	0.0	24.0	34.8	20.8	15.7	14.4	19.5	19.4
LnGrp LOS	C		D	E		C	C	C	B	B	B	B
Approach Vol, veh/h		354			444			1148			1216	
Approach Delay, s/veh		36.8			45.1			21.3			19.3	
Approach LOS		D			D			C			B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	6.5	50.6	11.0	26.9		57.1		37.9
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	28.1	8.0	33.0		37.6		44.0
Max Q Clear Time (g_c+I1), s	3.3	32.9	10.0	16.4		25.0		9.4
Green Ext Time (p_c), s	0.0	0.0	0.0	4.0		10.4		3.2

Intersection Summary	
HCM 2010 Ctrl Delay	25.6
HCM 2010 LOS	C

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	157	51	396	163	198	490
Future Volume (veh/h)	157	51	396	163	198	490
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1624	1727	1810	1881	1881
Adj Flow Rate, veh/h	171	55	430	177	215	533
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	17	10	5	1	1
Cap, veh/h	241	195	954	849	571	1264
Arrive On Green	0.14	0.14	0.55	0.55	0.08	0.67
Sat Flow, veh/h	1707	1380	1727	1538	1792	1881
Grp Volume(v), veh/h	171	55	430	177	215	533
Grp Sat Flow(s),veh/h/ln	1707	1380	1727	1538	1792	1881
Q Serve(g_s), s	6.7	2.5	10.4	4.1	3.3	9.1
Cycle Q Clear(g_c), s	6.7	2.5	10.4	4.1	3.3	9.1
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	241	195	954	849	571	1264
V/C Ratio(X)	0.71	0.28	0.45	0.21	0.38	0.42
Avail Cap(c_a), veh/h	537	434	954	849	612	1264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.7	26.9	9.3	7.9	6.2	5.3
Incr Delay (d2), s/veh	3.8	0.8	1.5	0.6	0.4	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	1.0	5.3	1.9	1.6	5.0
LnGrp Delay(d),s/veh	32.5	27.7	10.9	8.5	6.6	6.3
LnGrp LOS	C	C	B	A	A	A
Approach Vol, veh/h	226		607			748
Approach Delay, s/veh	31.4		10.2			6.4
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.4	45.0				53.3		16.7
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	7.0	* 25				* 35		22.0
Max Q Clear Time (g_c+I1), s	5.3	12.4				11.1		8.7
Green Ext Time (p_c), s	0.2	5.5				9.0		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	11.4
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	210	61	376	423	5
Future Vol, veh/h	26	210	61	376	423	5
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	28	228	66	409	460	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1005	464	465	0	-	0
Stage 1	463	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	270	600	1066	-	-	-
Stage 1	638	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	253	599	1066	-	-	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	598	-	-	-	-	-
Stage 2	587	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.4	1.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1066	-	521	-	-
HCM Lane V/C Ratio	0.062	-	0.492	-	-
HCM Control Delay (s)	8.6	-	18.4	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2.7	-	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	305	210	37	20	9
Future Vol, veh/h	17	305	210	37	20	9
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	18	332	228	40	22	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	268	0	-	0	616	248
Stage 1	-	-	-	-	248	-
Stage 2	-	-	-	-	368	-
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	1296	-	-	-	454	791
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	700	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1296	-	-	-	446	791
Mov Cap-2 Maneuver	-	-	-	-	446	-
Stage 1	-	-	-	-	780	-
Stage 2	-	-	-	-	700	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	12.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1296	-	-	-	516
HCM Lane V/C Ratio	0.014	-	-	-	0.061
HCM Control Delay (s)	7.8	0	-	-	12.4
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	321	220	0	0	4
Future Vol, veh/h	7	321	220	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	8	349	239	0	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	239	0	-	0	604	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	365	-
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	1328	-	-	-	461	800
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1328	-	-	-	458	800
Mov Cap-2 Maneuver	-	-	-	-	458	-
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	702	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1328	-	-	-	800
HCM Lane V/C Ratio	0.006	-	-	-	0.005
HCM Control Delay (s)	7.7	0	-	-	9.5
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

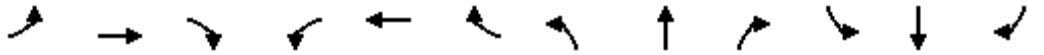
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	320	219	1	1	1
Future Vol, veh/h	0	320	219	1	1	1
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	0	348	238	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	239	0	-	0	587	239
Stage 1	-	-	-	-	239	-
Stage 2	-	-	-	-	348	-
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	1328	-	-	-	472	800
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	715	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1328	-	-	-	472	800
Mov Cap-2 Maneuver	-	-	-	-	472	-
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	715	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	11.1
HCM LOS			B

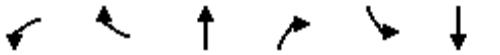
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1328	-	-	-	594
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	11.1
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	137	158	207	100	64	151	1268	288	80	1016	153
Future Volume (veh/h)	163	137	158	207	100	64	151	1268	288	80	1016	153
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1835	1900	1881	1828	1900	1900	1863	1881	1863	1828	1900
Adj Flow Rate, veh/h	172	144	166	218	105	67	159	1335	303	84	1069	161
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	302	171	198	247	338	216	211	1794	810	188	1722	259
Arrive On Green	0.22	0.22	0.22	0.08	0.32	0.32	0.51	0.51	0.51	0.04	0.57	0.57
Sat Flow, veh/h	1110	779	898	1792	1044	666	460	3539	1597	1774	3029	455
Grp Volume(v), veh/h	172	0	310	218	0	172	159	1335	303	84	612	618
Grp Sat Flow(s),veh/h/ln	1110	0	1677	1792	0	1710	460	1770	1597	1774	1737	1748
Q Serve(g_s), s	17.9	0.0	22.1	10.0	0.0	9.4	41.6	37.3	14.4	2.7	29.3	29.5
Cycle Q Clear(g_c), s	17.9	0.0	22.1	10.0	0.0	9.4	63.3	37.3	14.4	2.7	29.3	29.5
Prop In Lane	1.00		0.54	1.00		0.39	1.00		1.00	1.00		0.26
Lane Grp Cap(c), veh/h	302	0	369	247	0	554	211	1794	810	188	988	994
V/C Ratio(X)	0.57	0.00	0.84	0.88	0.00	0.31	0.75	0.74	0.37	0.45	0.62	0.62
Avail Cap(c_a), veh/h	351	0	443	247	0	629	211	1794	810	213	988	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	0.0	46.6	39.2	0.0	31.7	42.5	24.4	18.8	21.2	18.0	18.0
Incr Delay (d2), s/veh	1.7	0.0	11.7	28.5	0.0	0.3	21.9	2.9	1.3	1.7	2.9	2.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.6	0.0	11.4	7.7	0.0	4.5	6.8	18.9	6.6	1.4	14.7	14.9
LnGrp Delay(d),s/veh	46.7	0.0	58.3	67.8	0.0	32.1	64.4	27.3	20.1	22.9	20.9	20.9
LnGrp LOS	D		E	E		C	E	C	C	C	C	C
Approach Vol, veh/h		482			390			1797			1314	
Approach Delay, s/veh		54.1			52.0			29.3			21.0	
Approach LOS		D			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4		6		8
Phs Duration (G+Y+Rc), s	7.7	70.2	13.0	34.0		78.0		47.0
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5		6.9		6.5
Max Green Setting (Gmax), s	6.5	56.1	10.0	33.0		65.6		46.0
Max Q Clear Time (g_c+I1), s	4.7	65.3	12.0	24.1		31.5		11.4
Green Ext Time (p_c), s	0.0	0.0	0.0	3.4		24.8		3.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.8
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	217	247	628	241	151	610
Future Volume (veh/h)	217	247	628	241	151	610
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1792	1881	1776	1827	1845
Adj Flow Rate, veh/h	236	268	683	262	164	663
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	5	6	1	7	4	3
Cap, veh/h	375	331	941	755	339	1121
Arrive On Green	0.22	0.22	0.50	0.50	0.07	0.61
Sat Flow, veh/h	1723	1524	1881	1509	1740	1845
Grp Volume(v), veh/h	236	268	683	262	164	663
Grp Sat Flow(s),veh/h/ln	1723	1524	1881	1509	1740	1845
Q Serve(g_s), s	9.3	12.5	21.4	7.9	3.2	16.5
Cycle Q Clear(g_c), s	9.3	12.5	21.4	7.9	3.2	16.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	375	331	941	755	339	1121
V/C Ratio(X)	0.63	0.81	0.73	0.35	0.48	0.59
Avail Cap(c_a), veh/h	506	447	941	755	371	1121
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	26.6	27.9	14.7	11.3	11.9	9.0
Incr Delay (d2), s/veh	1.7	7.8	4.9	1.3	1.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	6.0	12.3	3.5	1.6	9.0
LnGrp Delay(d),s/veh	28.4	35.7	19.6	12.6	13.0	11.3
LnGrp LOS	C	D	B	B	B	B
Approach Vol, veh/h	504		945			827
Approach Delay, s/veh	32.3		17.7			11.6
Approach LOS	C		B			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	8.1	43.8				51.9		23.1
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	6.5	* 30				* 40		22.0
Max Q Clear Time (g_c+I1), s	5.2	23.4				18.5		14.5
Green Ext Time (p_c), s	0.1	5.2				10.9		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	18.7
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	154	245	565	572	26
Future Vol, veh/h	5	154	245	565	572	26
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	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	5	167	266	614	622	28

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1782	636	650	0	-	0
Stage 1	636	-	-	-	-	-
Stage 2	1146	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	91	478	931	-	-	-
Stage 1	531	-	-	-	-	-
Stage 2	306	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	65	478	931	-	-	-
Mov Cap-2 Maneuver	65	-	-	-	-	-
Stage 1	379	-	-	-	-	-
Stage 2	306	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.8	3.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	931	-	398	-	-
HCM Lane V/C Ratio	0.286	-	0.434	-	-
HCM Control Delay (s)	10.4	-	20.8	-	-
HCM Lane LOS	B	-	C	-	-
HCM 95th %tile Q(veh)	1.2	-	2.1	-	-

Intersection	
Int Delay, s/veh	4.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	350	300	104	108	50
Future Vol, veh/h	48	350	300	104	108	50
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	52	380	326	113	117	54

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	439	0	-	0	867	383
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	484	-
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	1121	-	-	-	323	664
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	620	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1121	-	-	-	304	664
Mov Cap-2 Maneuver	-	-	-	-	304	-
Stage 1	-	-	-	-	648	-
Stage 2	-	-	-	-	620	-

Approach	EB	WB	SB
HCM Control Delay, s	1	0	23.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1121	-	-	-	367
HCM Lane V/C Ratio	0.047	-	-	-	0.468
HCM Control Delay (s)	8.4	0	-	-	23.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	2.4

Intersection	
Int Delay, s/veh	0.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	396	352	0	0	22
Future Vol, veh/h	21	396	352	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	23	430	383	0	0	24

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	383	0	-	0	859	383
Stage 1	-	-	-	-	383	-
Stage 2	-	-	-	-	476	-
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	1175	-	-	-	327	664
Stage 1	-	-	-	-	689	-
Stage 2	-	-	-	-	625	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1175	-	-	-	318	664
Mov Cap-2 Maneuver	-	-	-	-	318	-
Stage 1	-	-	-	-	671	-
Stage 2	-	-	-	-	625	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10.6
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1175	-	-	-	664
HCM Lane V/C Ratio	0.019	-	-	-	0.036
HCM Control Delay (s)	8.1	0	-	-	10.6
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

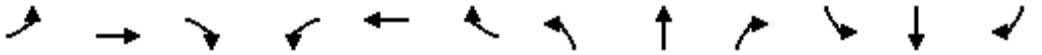
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	395	350	1	3	2
Future Vol, veh/h	1	395	350	1	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	429	380	1	3	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	381	0	-	0	812	381
Stage 1	-	-	-	-	381	-
Stage 2	-	-	-	-	431	-
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	1177	-	-	-	348	666
Stage 1	-	-	-	-	691	-
Stage 2	-	-	-	-	655	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1177	-	-	-	348	666
Mov Cap-2 Maneuver	-	-	-	-	348	-
Stage 1	-	-	-	-	690	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	13.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1177	-	-	-	430
HCM Lane V/C Ratio	0.001	-	-	-	0.013
HCM Control Delay (s)	8.1	0	-	-	13.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

2033 Background Traffic plus Site Traffic Conditions



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	112	103	199	287	112	82	98	968	137	49	1123	94
Future Volume (veh/h)	112	103	199	287	112	82	98	968	137	49	1123	94
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1900	1863	1852	1900	1827	1792	1810	1712	1794	1900
Adj Flow Rate, veh/h	118	108	209	302	118	86	103	1019	144	52	1182	99
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	358	128	247	323	289	211	184	1477	667	209	1339	112
Arrive On Green	0.06	0.24	0.24	0.12	0.29	0.29	0.05	0.43	0.43	0.04	0.42	0.42
Sat Flow, veh/h	1521	542	1049	1774	997	727	1740	3406	1538	1630	3184	266
Grp Volume(v), veh/h	118	0	317	302	0	204	103	1019	144	52	632	649
Grp Sat Flow(s),veh/h/ln	1521	0	1591	1774	0	1724	1740	1703	1538	1630	1704	1747
Q Serve(g_s), s	6.5	0.0	20.9	13.0	0.0	10.5	3.6	26.6	6.4	2.0	37.6	37.7
Cycle Q Clear(g_c), s	6.5	0.0	20.9	13.0	0.0	10.5	3.6	26.6	6.4	2.0	37.6	37.7
Prop In Lane	1.00		0.66	1.00		0.42	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	358	0	375	323	0	500	184	1477	667	209	716	734
V/C Ratio(X)	0.33	0.00	0.85	0.93	0.00	0.41	0.56	0.69	0.22	0.25	0.88	0.88
Avail Cap(c_a), veh/h	358	0	477	323	0	611	203	1477	667	247	716	734
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.4	0.0	40.1	30.7	0.0	31.4	24.7	25.2	19.5	20.0	29.4	29.4
Incr Delay (d2), s/veh	0.5	0.0	10.8	33.4	0.0	0.5	2.8	2.7	0.7	0.6	14.7	14.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	10.3	5.8	0.0	5.1	1.9	13.0	2.9	0.9	20.5	21.0
LnGrp Delay(d),s/veh	29.9	0.0	50.9	64.1	0.0	32.0	27.5	27.8	20.2	20.6	44.0	44.0
LnGrp LOS	C		D	E		C	C	C	C	C	D	D
Approach Vol, veh/h		435			506			1266			1333	
Approach Delay, s/veh		45.2			51.2			26.9			43.1	
Approach LOS		D			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.0	54.6	16.0	32.4	8.4	53.1	10.0	38.4
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5	3.0	6.9	3.0	6.5
Max Green Setting (Gmax), s	6.5	38.1	13.0	33.0	6.6	38.0	7.0	39.0
Max Q Clear Time (g_c+I1), s	4.0	28.6	15.0	22.9	5.6	39.7	8.5	12.5
Green Ext Time (p_c), s	0.0	7.8	0.0	3.0	0.0	0.0	0.0	3.3

Intersection Summary	
HCM 2010 Ctrl Delay	38.7
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	206	64	450	213	257	558
Future Volume (veh/h)	206	64	450	213	257	558
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1624	1727	1810	1881	1881
Adj Flow Rate, veh/h	224	70	489	232	279	607
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	6	17	10	5	1	1
Cap, veh/h	291	235	864	769	504	1208
Arrive On Green	0.17	0.17	0.50	0.50	0.10	0.64
Sat Flow, veh/h	1707	1380	1727	1538	1792	1881
Grp Volume(v), veh/h	224	70	489	232	279	607
Grp Sat Flow(s),veh/h/ln	1707	1380	1727	1538	1792	1881
Q Serve(g_s), s	8.8	3.1	13.8	6.2	4.8	11.9
Cycle Q Clear(g_c), s	8.8	3.1	13.8	6.2	4.8	11.9
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	291	235	864	769	504	1208
V/C Ratio(X)	0.77	0.30	0.57	0.30	0.55	0.50
Avail Cap(c_a), veh/h	537	434	864	769	530	1208
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.7	25.4	12.2	10.3	8.6	6.6
Incr Delay (d2), s/veh	4.3	0.7	2.7	1.0	1.1	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.5	1.2	7.2	2.9	2.4	6.6
LnGrp Delay(d),s/veh	32.0	26.1	14.9	11.3	9.7	8.1
LnGrp LOS	C	C	B	B	A	A
Approach Vol, veh/h	294		721			886
Approach Delay, s/veh	30.6		13.7			8.6
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.0	41.3				51.3		18.7
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	8.0	* 24				* 35		22.0
Max Q Clear Time (g_c+I1), s	6.8	15.8				13.9		10.8
Green Ext Time (p_c), s	0.2	4.6				9.7		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.0
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	30	245	70	428	481	5
Future Vol, veh/h	30	245	70	428	481	5
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	33	266	76	465	523	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1144	527	528	0	-	0
Stage 1	526	-	-	-	-	-
Stage 2	618	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	223	553	1009	-	-	-
Stage 1	597	-	-	-	-	-
Stage 2	542	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	206	552	1009	-	-	-
Mov Cap-2 Maneuver	206	-	-	-	-	-
Stage 1	552	-	-	-	-	-
Stage 2	542	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.4	1.2	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1009	-	467	-	-
HCM Lane V/C Ratio	0.075	-	0.64	-	-
HCM Control Delay (s)	8.9	-	25.4	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.2	-	4.4	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	394	267	37	20	9
Future Vol, veh/h	17	394	267	37	20	9
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	18	428	290	40	22	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	330	0	-	0	774	310
Stage 1	-	-	-	-	310	-
Stage 2	-	-	-	-	464	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1229	-	-	-	367	730
Stage 1	-	-	-	-	744	-
Stage 2	-	-	-	-	633	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1229	-	-	-	360	730
Mov Cap-2 Maneuver	-	-	-	-	360	-
Stage 1	-	-	-	-	730	-
Stage 2	-	-	-	-	633	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	14.1
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1229	-	-	-	427
HCM Lane V/C Ratio	0.015	-	-	-	0.074
HCM Control Delay (s)	8	0	-	-	14.1
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	410	276	1	1	1
Future Vol, veh/h	0	410	276	1	1	1
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	0	446	300	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	301	0	-	0	747	301
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	446	-
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	1260	-	-	-	381	739
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	645	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1260	-	-	-	381	739
Mov Cap-2 Maneuver	-	-	-	-	381	-
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	645	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.2
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1260	-	-	-	503
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	12.2
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

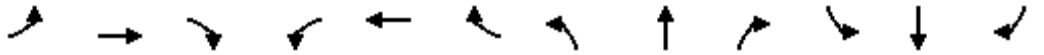
Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations						
Traffic Vol, veh/h	7	410	277	0	0	4
Future Vol, veh/h	7	410	277	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	8	446	301	0	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	301	0	-	0	763	301
Stage 1	-	-	-	-	301	-
Stage 2	-	-	-	-	462	-
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	1260	-	-	-	372	739
Stage 1	-	-	-	-	751	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1260	-	-	-	369	739
Mov Cap-2 Maneuver	-	-	-	-	369	-
Stage 1	-	-	-	-	745	-
Stage 2	-	-	-	-	634	-

Approach	EB	WB	SE
HCM Control Delay, s	0.1	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SELn1
Capacity (veh/h)	1260	-	-	-	739
HCM Lane V/C Ratio	0.006	-	-	-	0.006
HCM Control Delay (s)	7.9	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	200	156	202	243	113	75	194	1421	339	94	1138	187
Future Volume (veh/h)	200	156	202	243	113	75	194	1421	339	94	1138	187
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1835	1900	1881	1827	1900	1900	1863	1881	1863	1827	1900
Adj Flow Rate, veh/h	211	164	213	256	119	79	204	1496	357	99	1198	197
Adj No. of Lanes	1	1	0	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	3	1	2	2	0	2	1	2	3	3
Cap, veh/h	353	185	241	241	283	188	221	1594	719	158	1237	202
Arrive On Green	0.06	0.26	0.26	0.08	0.28	0.28	0.08	0.45	0.45	0.05	0.41	0.41
Sat Flow, veh/h	1630	726	943	1792	1026	681	1810	3539	1597	1774	2987	489
Grp Volume(v), veh/h	211	0	377	256	0	198	204	1496	357	99	693	702
Grp Sat Flow(s),veh/h/ln	1630	0	1668	1792	0	1707	1810	1770	1597	1774	1736	1740
Q Serve(g_s), s	6.6	0.0	25.0	9.0	0.0	10.9	8.4	46.3	18.2	3.7	44.8	45.5
Cycle Q Clear(g_c), s	6.6	0.0	25.0	9.0	0.0	10.9	8.4	46.3	18.2	3.7	44.8	45.5
Prop In Lane	1.00		0.56	1.00		0.40	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	353	0	426	241	0	471	221	1594	719	158	719	721
V/C Ratio(X)	0.60	0.00	0.88	1.06	0.00	0.42	0.92	0.94	0.50	0.62	0.96	0.97
Avail Cap(c_a), veh/h	353	0	479	241	0	511	221	1594	719	175	719	721
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	35.3	0.0	41.2	36.7	0.0	34.1	31.6	30.1	22.4	27.2	32.9	33.1
Incr Delay (d2), s/veh	2.8	0.0	16.4	75.1	0.0	0.6	40.0	12.0	2.4	5.9	25.9	27.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.4	0.0	13.5	8.2	0.0	5.2	8.9	25.1	8.4	2.0	26.6	27.4
LnGrp Delay(d),s/veh	38.0	0.0	57.6	111.7	0.0	34.7	71.5	42.1	24.8	33.0	58.8	60.7
LnGrp LOS	D		E	F		C	E	D	C	C	E	E
Approach Vol, veh/h		588			454			2057			1494	
Approach Delay, s/veh		50.6			78.1			42.0			58.0	
Approach LOS		D			E			D			E	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.4	58.7	12.0	35.9	12.6	54.5	9.6	38.3
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5	3.0	6.9	3.0	6.5
Max Green Setting (Gmax), s	6.5	47.1	9.0	33.0	9.6	44.0	6.6	34.4
Max Q Clear Time (g_c+I1), s	5.7	48.3	11.0	27.0	10.4	47.5	8.6	12.9
Green Ext Time (p_c), s	0.0	0.0	0.0	2.4	0.0	0.0	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	51.9
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	278	312	715	311	186	693
Future Volume (veh/h)	278	312	715	311	186	693
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1792	1881	1776	1827	1845
Adj Flow Rate, veh/h	293	328	753	327	196	729
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	1	7	4	3
Cap, veh/h	426	377	891	715	288	1087
Arrive On Green	0.25	0.25	0.47	0.47	0.08	0.59
Sat Flow, veh/h	1723	1524	1881	1509	1740	1845
Grp Volume(v), veh/h	293	328	753	327	196	729
Grp Sat Flow(s),veh/h/ln	1723	1524	1881	1509	1740	1845
Q Serve(g_s), s	12.3	16.5	28.1	11.6	4.3	21.5
Cycle Q Clear(g_c), s	12.3	16.5	28.1	11.6	4.3	21.5
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	426	377	891	715	288	1087
V/C Ratio(X)	0.69	0.87	0.85	0.46	0.68	0.67
Avail Cap(c_a), veh/h	474	419	891	715	294	1087
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.3	28.9	18.5	14.2	16.5	11.2
Incr Delay (d2), s/veh	3.6	16.6	9.7	2.1	6.1	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.3	8.7	16.8	5.2	2.6	11.7
LnGrp Delay(d),s/veh	31.0	45.4	28.2	16.3	22.6	14.5
LnGrp LOS	C	D	C	B	C	B
Approach Vol, veh/h	621		1080			925
Approach Delay, s/veh	38.6		24.6			16.2
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.2	44.2				53.4		26.6
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	6.5	* 35				* 45		22.0
Max Q Clear Time (g_c+I1), s	6.3	30.1				23.5		18.5
Green Ext Time (p_c), s	0.0	4.3				12.1		1.3

Intersection Summary	
HCM 2010 Ctrl Delay	24.9
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	4.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	178	284	640	648	30
Future Vol, veh/h	5	178	284	640	648	30
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	5	187	299	674	682	32

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1970	698	714	0	-	0
Stage 1	698	-	-	-	-	-
Stage 2	1272	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	70	440	882	-	-	-
Stage 1	497	-	-	-	-	-
Stage 2	266	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	46	440	882	-	-	-
Mov Cap-2 Maneuver	46	-	-	-	-	-
Stage 1	329	-	-	-	-	-
Stage 2	266	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.3	3.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	882	-	357	-	-
HCM Lane V/C Ratio	0.339	-	0.54	-	-
HCM Control Delay (s)	11.2	-	26.3	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	1.5	-	3.1	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	450	390	104	108	50
Future Vol, veh/h	48	450	390	104	108	50
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	474	411	109	114	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	520	0	-	0	1042	466
Stage 1	-	-	-	-	466	-
Stage 2	-	-	-	-	576	-
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	1046	-	-	-	254	597
Stage 1	-	-	-	-	632	-
Stage 2	-	-	-	-	562	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1046	-	-	-	237	597
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	590	-
Stage 2	-	-	-	-	562	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	32.3
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1046	-	-	-	293
HCM Lane V/C Ratio	0.048	-	-	-	0.568
HCM Control Delay (s)	8.6	0	-	-	32.3
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.2	-	-	-	3.3

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	496	441	0	0	22
Future Vol, veh/h	21	496	441	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	522	464	0	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	464	0	-	0	1030	464
Stage 1	-	-	-	-	464	-
Stage 2	-	-	-	-	566	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1097	-	-	-	259	598
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	568	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1097	-	-	-	252	598
Mov Cap-2 Maneuver	-	-	-	-	252	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	568	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.3
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1097	-	-	-	598
HCM Lane V/C Ratio	0.02	-	-	-	0.039
HCM Control Delay (s)	8.3	0	-	-	11.3
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	495	439	1	3	2
Future Vol, veh/h	1	495	439	1	3	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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	521	462	1	3	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	463	0	-	0	986	463
Stage 1	-	-	-	-	463	-
Stage 2	-	-	-	-	523	-
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	1098	-	-	-	275	599
Stage 1	-	-	-	-	634	-
Stage 2	-	-	-	-	595	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1098	-	-	-	275	599
Mov Cap-2 Maneuver	-	-	-	-	275	-
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	595	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.4
HCM LOS			C

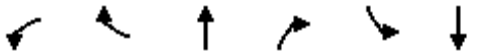
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1098	-	-	-	351
HCM Lane V/C Ratio	0.001	-	-	-	0.015
HCM Control Delay (s)	8.3	0	-	-	15.4
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0

2038 Background Traffic plus Site Traffic Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	119	115	211	322	124	92	105	1019	154	55	1182	99
Future Volume (veh/h)	119	115	211	322	124	92	105	1019	154	55	1182	99
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1597	1776	1776	1863	1852	1900	1827	1792	1810	1712	1794	1900
Adj Flow Rate, veh/h	125	121	222	339	131	97	111	1073	162	58	1244	104
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	19	7	7	2	3	3	4	6	5	11	5	5
Cap, veh/h	261	319	271	376	222	165	214	1753	792	238	1606	134
Arrive On Green	0.06	0.18	0.18	0.11	0.22	0.22	0.05	0.51	0.51	0.04	0.50	0.50
Sat Flow, veh/h	1521	1776	1509	1774	990	733	1740	3406	1538	1630	3185	266
Grp Volume(v), veh/h	125	121	222	339	0	228	111	1073	162	58	664	684
Grp Sat Flow(s),veh/h/ln	1521	1776	1509	1774	0	1723	1740	1703	1538	1630	1704	1747
Q Serve(g_s), s	7.6	7.2	17.0	13.0	0.0	14.2	3.7	26.8	6.9	2.0	38.0	38.3
Cycle Q Clear(g_c), s	7.6	7.2	17.0	13.0	0.0	14.2	3.7	26.8	6.9	2.0	38.0	38.3
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		0.15
Lane Grp Cap(c), veh/h	261	319	271	376	0	387	214	1753	792	238	859	881
V/C Ratio(X)	0.48	0.38	0.82	0.90	0.00	0.59	0.52	0.61	0.20	0.24	0.77	0.78
Avail Cap(c_a), veh/h	261	488	415	376	0	551	229	1753	792	270	859	881
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	38.4	43.3	47.4	40.4	0.0	41.6	21.4	20.6	15.8	16.3	24.2	24.2
Incr Delay (d2), s/veh	1.4	0.7	7.5	24.2	0.0	1.4	1.9	1.6	0.6	0.5	6.7	6.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	3.6	7.6	7.4	0.0	6.9	1.9	12.9	3.0	0.9	19.3	20.0
LnGrp Delay(d),s/veh	39.7	44.1	54.8	64.5	0.0	43.0	23.4	22.2	16.4	16.9	30.9	30.9
LnGrp LOS	D	D	D	E		D	C	C	B	B	C	C
Approach Vol, veh/h		468			567			1346			1406	
Approach Delay, s/veh		48.0			55.9			21.6			30.3	
Approach LOS		D			E			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	68.7	16.0	28.0	8.6	67.4	10.6	33.4
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5	3.0	6.9	3.0	6.5
Max Green Setting (Gmax), s	6.6	48.0	13.0	33.0	6.6	48.0	7.6	38.4
Max Q Clear Time (g_c+I1), s	4.0	28.8	15.0	19.0	5.7	40.3	9.6	16.2
Green Ext Time (p_c), s	0.0	14.9	0.0	2.6	0.0	7.1	0.0	3.5

Intersection Summary	
HCM 2010 Ctrl Delay	33.2
HCM 2010 LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	220	68	469	227	273	581
Future Volume (veh/h)	220	68	469	227	273	581
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1792	1624	1727	1810	1881	1881
Adj Flow Rate, veh/h	232	72	494	239	287	612
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	6	17	10	5	1	1
Cap, veh/h	299	242	850	757	496	1199
Arrive On Green	0.18	0.18	0.49	0.49	0.10	0.64
Sat Flow, veh/h	1707	1380	1727	1538	1792	1881
Grp Volume(v), veh/h	232	72	494	239	287	612
Grp Sat Flow(s),veh/h/ln	1707	1380	1727	1538	1792	1881
Q Serve(g_s), s	9.1	3.2	14.2	6.5	5.0	12.2
Cycle Q Clear(g_c), s	9.1	3.2	14.2	6.5	5.0	12.2
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	299	242	850	757	496	1199
V/C Ratio(X)	0.77	0.30	0.58	0.32	0.58	0.51
Avail Cap(c_a), veh/h	537	434	850	757	518	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	27.5	25.1	12.6	10.7	9.0	6.8
Incr Delay (d2), s/veh	4.3	0.7	2.9	1.1	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.6	1.3	7.4	3.0	2.6	6.8
LnGrp Delay(d),s/veh	31.8	25.8	15.5	11.8	10.5	8.4
LnGrp LOS	C	C	B	B	B	A
Approach Vol, veh/h	304		733			899
Approach Delay, s/veh	30.4		14.3			9.1
Approach LOS	C		B			A

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	10.2	40.8				50.9		19.1
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	8.0	* 24				* 35		22.0
Max Q Clear Time (g_c+I1), s	7.0	16.2				14.2		11.1
Green Ext Time (p_c), s	0.2	4.5				9.7		1.2

Intersection Summary	
HCM 2010 Ctrl Delay	14.4
HCM 2010 LOS	B

Notes

Intersection	
Int Delay, s/veh	6.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	268	77	444	498	6
Future Vol, veh/h	33	268	77	444	498	6
Conflicting Peds, #/hr	1	1	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	8	12	1	0
Mvmt Flow	35	282	81	467	524	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1157	528	530	0	-	0
Stage 1	527	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Critical Hdwy	6.4	6.21	4.18	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.309	2.272	-	-	-
Pot Cap-1 Maneuver	219	552	1007	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	535	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	201	551	1007	-	-	-
Mov Cap-2 Maneuver	201	-	-	-	-	-
Stage 1	548	-	-	-	-	-
Stage 2	535	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	28	1.3	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1007	-	463	-	-
HCM Lane V/C Ratio	0.08	-	0.684	-	-
HCM Control Delay (s)	8.9	-	28	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	5.1	-	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	424	290	37	20	9
Future Vol, veh/h	17	424	290	37	20	9
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	446	305	39	21	9

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	344	0	-	0	807	325
Stage 1	-	-	-	-	325	-
Stage 2	-	-	-	-	482	-
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	1215	-	-	-	351	716
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	621	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1215	-	-	-	344	716
Mov Cap-2 Maneuver	-	-	-	-	344	-
Stage 1	-	-	-	-	717	-
Stage 2	-	-	-	-	621	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	14.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1215	-	-	-	410
HCM Lane V/C Ratio	0.015	-	-	-	0.074
HCM Control Delay (s)	8	0	-	-	14.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	440	300	0	0	4
Future Vol, veh/h	7	440	300	0	0	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	463	316	0	0	4

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	316	0	-	0	793	316
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	477	-
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	1244	-	-	-	358	724
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1244	-	-	-	355	724
Mov Cap-2 Maneuver	-	-	-	-	355	-
Stage 1	-	-	-	-	733	-
Stage 2	-	-	-	-	624	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1244	-	-	-	724
HCM Lane V/C Ratio	0.006	-	-	-	0.006
HCM Control Delay (s)	7.9	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0

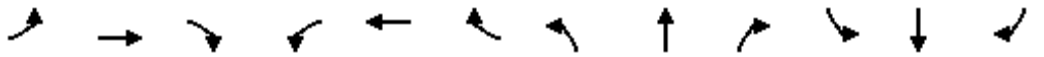
Intersection	
Int Delay, s/veh	0

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	440	299	1	1	1
Future Vol, veh/h	0	440	299	1	1	1
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	463	315	1	1	1

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	316	0	-	0	779	316
Stage 1	-	-	-	-	316	-
Stage 2	-	-	-	-	463	-
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	1244	-	-	-	364	724
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	634	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1244	-	-	-	364	724
Mov Cap-2 Maneuver	-	-	-	-	364	-
Stage 1	-	-	-	-	739	-
Stage 2	-	-	-	-	634	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	12.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1244	-	-	-	484
HCM Lane V/C Ratio	-	-	-	-	0.004
HCM Control Delay (s)	0	-	-	-	12.5
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	209	172	212	273	124	84	204	1496	381	105	1198	195
Future Volume (veh/h)	209	172	212	273	124	84	204	1496	381	105	1198	195
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1712	1845	1827	1881	1827	1900	1900	1863	1881	1863	1827	1900
Adj Flow Rate, veh/h	220	181	223	287	131	88	215	1575	401	111	1261	205
Adj No. of Lanes	1	1	1	1	1	0	1	2	1	1	2	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	11	3	4	1	2	2	0	2	1	2	3	3
Cap, veh/h	269	318	393	315	183	123	246	1825	824	175	1444	233
Arrive On Green	0.09	0.17	0.17	0.10	0.18	0.18	0.08	0.52	0.52	0.05	0.48	0.48
Sat Flow, veh/h	1630	1845	1553	1792	1020	685	1810	3539	1597	1774	2994	483
Grp Volume(v), veh/h	220	181	223	287	0	219	215	1575	401	111	727	739
Grp Sat Flow(s),veh/h/ln	1630	1845	1553	1792	0	1706	1810	1770	1597	1774	1736	1741
Q Serve(g_s), s	10.2	10.4	14.4	11.0	0.0	13.9	7.1	44.7	18.7	3.6	42.9	43.9
Cycle Q Clear(g_c), s	10.2	10.4	14.4	11.0	0.0	13.9	7.1	44.7	18.7	3.6	42.9	43.9
Prop In Lane	1.00		1.00	1.00		0.40	1.00		1.00	1.00		0.28
Lane Grp Cap(c), veh/h	269	318	393	315	0	306	246	1825	824	175	837	840
V/C Ratio(X)	0.82	0.57	0.57	0.91	0.00	0.72	0.87	0.86	0.49	0.63	0.87	0.88
Avail Cap(c_a), veh/h	269	529	571	315	0	501	285	1825	824	191	837	840
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	40.2	43.7	37.4	41.0	0.0	44.4	26.8	24.3	18.0	25.1	26.5	26.8
Incr Delay (d2), s/veh	17.5	1.6	1.3	29.0	0.0	3.1	22.2	5.7	2.1	5.9	11.9	12.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.7	5.4	6.3	6.2	0.0	6.8	8.2	23.1	8.7	2.0	23.2	23.9
LnGrp Delay(d),s/veh	57.7	45.3	38.7	70.1	0.0	47.6	49.0	30.0	20.1	31.0	38.4	39.4
LnGrp LOS	E	D	D	E		D	D	C	C	C	D	D
Approach Vol, veh/h		624			506			2191			1577	
Approach Delay, s/veh		47.3			60.3			30.0			38.4	
Approach LOS		D			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.5	66.2	14.0	26.3	12.3	62.4	13.2	27.1
Change Period (Y+Rc), s	3.0	6.9	3.0	6.5	3.0	6.9	3.0	6.5
Max Green Setting (Gmax), s	6.5	45.1	11.0	33.0	11.8	39.8	10.2	33.8
Max Q Clear Time (g_c+I1), s	5.6	46.7	13.0	16.4	9.1	45.9	12.2	15.9
Green Ext Time (p_c), s	0.0	0.0	0.0	3.4	0.3	0.0	0.0	2.9

Intersection Summary	
HCM 2010 Ctrl Delay	38.0
HCM 2010 LOS	D

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	295	330	744	330	195	722
Future Volume (veh/h)	295	330	744	330	195	722
Number	3	18	2	12	1	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1792	1881	1776	1827	1845
Adj Flow Rate, veh/h	311	347	783	347	205	760
Adj No. of Lanes	1	1	1	1	1	1
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	5	6	1	7	4	3
Cap, veh/h	421	372	941	755	283	1125
Arrive On Green	0.24	0.24	0.50	0.50	0.08	0.61
Sat Flow, veh/h	1723	1524	1881	1509	1740	1845
Grp Volume(v), veh/h	311	347	783	347	205	760
Grp Sat Flow(s),veh/h/ln	1723	1524	1881	1509	1740	1845
Q Serve(g_s), s	15.0	20.1	32.1	13.4	4.8	24.6
Cycle Q Clear(g_c), s	15.0	20.1	32.1	13.4	4.8	24.6
Prop In Lane	1.00	1.00		1.00	1.00	
Lane Grp Cap(c), veh/h	421	372	941	755	283	1125
V/C Ratio(X)	0.74	0.93	0.83	0.46	0.72	0.68
Avail Cap(c_a), veh/h	421	372	941	755	305	1125
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.3	33.3	19.3	14.6	18.3	11.6
Incr Delay (d2), s/veh	6.7	29.9	8.5	2.0	7.7	3.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	7.9	11.5	18.8	6.0	3.3	13.3
LnGrp Delay(d),s/veh	38.1	63.1	27.8	16.6	25.9	14.9
LnGrp LOS	D	E	C	B	C	B
Approach Vol, veh/h	658		1130			965
Approach Delay, s/veh	51.3		24.4			17.2
Approach LOS	D		C			B

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2				6		8
Phs Duration (G+Y+Rc), s	9.9	51.3				61.2		28.8
Change Period (Y+Rc), s	3.0	* 6.3				* 6.3		6.8
Max Green Setting (Gmax), s	8.0	* 44				* 55		22.0
Max Q Clear Time (g_c+I1), s	6.8	34.1				26.6		22.1
Green Ext Time (p_c), s	0.1	7.7				15.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	193	309	663	672	33
Future Vol, veh/h	6	193	309	663	672	33
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	2	3	1	4	0
Mvmt Flow	6	203	325	698	707	35

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2073	725	742	0	-	0
Stage 1	725	-	-	-	-	-
Stage 2	1348	-	-	-	-	-
Critical Hdwy	6.4	6.22	4.13	-	-	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.318	2.227	-	-	-
Pot Cap-1 Maneuver	60	425	861	-	-	-
Stage 1	483	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	37	425	861	-	-	-
Mov Cap-2 Maneuver	37	-	-	-	-	-
Stage 1	301	-	-	-	-	-
Stage 2	244	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.6	3.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	861	-	323	-	-
HCM Lane V/C Ratio	0.378	-	0.649	-	-
HCM Control Delay (s)	11.7	-	34.6	-	-
HCM Lane LOS	B	-	D	-	-
HCM 95th %tile Q(veh)	1.8	-	4.3	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	48	485	419	104	108	50
Future Vol, veh/h	48	485	419	104	108	50
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	51	511	441	109	114	53

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	550	0	-	0	1109	496
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	613	-
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	1020	-	-	-	232	574
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	541	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1020	-	-	-	216	574
Mov Cap-2 Maneuver	-	-	-	-	216	-
Stage 1	-	-	-	-	569	-
Stage 2	-	-	-	-	541	-

Approach	EB	WB	SB
HCM Control Delay, s	0.8	0	37.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1020	-	-	-	269
HCM Lane V/C Ratio	0.05	-	-	-	0.618
HCM Control Delay (s)	8.7	0	-	-	37.9
HCM Lane LOS	A	A	-	-	E
HCM 95th %tile Q(veh)	0.2	-	-	-	3.8

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	21	532	471	0	0	22
Future Vol, veh/h	21	532	471	0	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	560	496	0	0	23

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	496	0	-	0	1100	496
Stage 1	-	-	-	-	496	-
Stage 2	-	-	-	-	604	-
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	1068	-	-	-	235	574
Stage 1	-	-	-	-	612	-
Stage 2	-	-	-	-	546	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1068	-	-	-	228	574
Mov Cap-2 Maneuver	-	-	-	-	228	-
Stage 1	-	-	-	-	594	-
Stage 2	-	-	-	-	546	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1068	-	-	-	574
HCM Lane V/C Ratio	0.021	-	-	-	0.04
HCM Control Delay (s)	8.4	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

Intersection	
Int Delay, s/veh	0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	531	469	1	3	2
Future Vol, veh/h	1	531	469	1	3	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	95	95	95	95	95	95
Heavy Vehicles, %	50	2	2	50	50	50
Mvmt Flow	1	559	494	1	3	2

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	495	0	-	0	1056	495
Stage 1	-	-	-	-	495	-
Stage 2	-	-	-	-	561	-
Critical Hdwy	4.6	-	-	-	6.9	6.7
Critical Hdwy Stg 1	-	-	-	-	5.9	-
Critical Hdwy Stg 2	-	-	-	-	5.9	-
Follow-up Hdwy	2.65	-	-	-	3.95	3.75
Pot Cap-1 Maneuver	861	-	-	-	203	489
Stage 1	-	-	-	-	525	-
Stage 2	-	-	-	-	487	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	861	-	-	-	203	489
Mov Cap-2 Maneuver	-	-	-	-	203	-
Stage 1	-	-	-	-	524	-
Stage 2	-	-	-	-	487	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	18.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	861	-	-	-	265
HCM Lane V/C Ratio	0.001	-	-	-	0.02
HCM Control Delay (s)	9.2	0	-	-	18.9
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Appendix C

Traffic Signal Warrants

TRAFFIC SIGNAL WARRANT

Analyst	Lilly Chen	**Jurisdiction/Date**	Simcoe County	17 July 2018
Agency or Company	Ainley Group	**East-West Street**	Snow Valley Rd	
Analysis Period	2023 Background	**North-South Street**	Wilson Dr Southerly	
Flow Conditions	Restricted flow (urban)	**Major Street**	North-South	
T Intersection	Yes	**Approach Lanes per Direction**	1	
		Hours of Traffic Volume Data	AM & PM peaks only	
Additional Comments	existing road configuration			

TRAFFIC & PEDESTRIAN VOLUMES

Hour Ending		Hour 1 AM Peak	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8 PM Peak	AM + PM 4
MAJOR STREET										
Northbound	right	101							141	61
	thru	328							521	212
	left	0								0
Southbound	right	0								0
	thru	406							505	228
	left	119							70	47
MINOR STREET										
Eastbound	right									0
	thru									0
	left									0
Westbound	right	28							131	40
	thru									0
	left	99							124	56
PEDESTRIANS										
crossing MAJOR street		0								0
delayed pedestrians		0								0
crossing MINOR street		0								0
APPROACH VOLUMES										
major		954							1237	548
minor		127							255	96
TOTAL		1081							1492	643
CROSSING VOLUMES										
TOTAL		99							124	56
note 1		99							124	
note 2		0							0	
note 3		0							0	
3a		no							no	
3b		no							no	
note 4		0							0	0
note 5		0							0	0

NOTES

Traffic crossing MAJOR street defined as:

note 1: Left turns from both minor street approaches
note 2: The heaviest through volume from the minor street
note 3: 50% of the heavier left turn movement from the major street when both of the following are met:
3a: the left turn volume > 120
3b: the left turn volume + opposing volume > 720
note 4: Pedestrians crossing the major street
note 5: Pedestrians experiencing delays of 10 seconds or more in crossing the major street

ACCIDENT HISTORY

Reportable accidents over the past 36 months susceptible to correction by a traffic signal.	-

Ainley GROUP CONSULTING ENGINEERS PLANNERS

TRAFFIC SIGNAL WARRANT

JUSTIFICATION 1 - MINIMUM VEHICLE VOLUME

JUSTIFICATION	GUIDANCE	HOUR ENDING: AM Peak	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	PM Peak	No. of hours with compliance: 100%	80%+	
1A	TOTAL TRAFFIC VOLUME ENTERING INTERSECTION (vph) (2 way Total)	1081	643	643	643	643	643	643	1492	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 720 (1 lane approach on main road) OR VOL x 100 / 900 (2 or more lane approach on main road)	100%	89%	89%	89%	89%	89%	89%	100%	2	8	92%
1B	TRAFFIC VOLUME ON MINOR STREET (vph) (2 way Total)	127	96	96	96	96	96	96	255	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 170 (full intersection) OR VOL x 100 / 255 (tee intersection)	50%	37%	37%	37%	37%	37%	37%	100%	1	1	47%
(RESTRICTED FLOW)		**BOTH 1A AND 1B 100% FULFILLED EACH OF 8 HOURS**										**NO**
SIGNAL JUSTIFICATION 1:		**LESSER OF 1A OR 1B AT LEAST 80% FULFILLED EACH OF 8 HOURS**										**NO**

JUSTIFICATION 2 - DELAY TO CROSS TRAFFIC

JUSTIFICATION	GUIDANCE	HOUR ENDING: Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8	No. of hours with compliance: 100%	80%+	
2A	MAIN ROAD TRAFFIC VOLUME (vph) (2 way Total)	954	548	548	548	548	548	548	1237	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 720 (1 lane approach on main road) OR VOL x 100 / 900 (2 or more lane approach on main road)	100%	76%	76%	76%	76%	76%	76%	100%	2	2	82%
2B	CROSSING TRAFFIC VOLUME (vph) (2 way Total)	99	56	56	56	56	56	56	124	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 75	100%	74%	74%	74%	74%	74%	74%	100%	2	2	81%
(RESTRICTED FLOW)		**BOTH 2A AND 2B 100% FULFILLED EACH OF 8 HOURS**										**NO**
SIGNAL JUSTIFICATION 2:		**LESSER OF 2A OR 2B AT LEAST 80% FULFILLED EACH OF 8 HOURS**										**NO**

JUSTIFICATION 3 - VOLUME/DELAY COMBINATION JUSTIFICATION

JUSTIFICATION SATISFIED 80% OR MORE				**Two Justifications Satisfied 80% or more**
Justification 1	-	Minimum Vehicle Volume	NO	**NO**
Justification 2	-	Delay to Cross Traffic	NO	

JUSTIFICATION 4 - MINIMUM FOUR-HOUR VEHICLE VOLUME

JUSTIFICATION 5 - COLLISION EXPERIENCE

	Warrant Value	Number of Collisions	% Fulfillment
A. Reportable collisions over 36 consecutive months susceptible to correction by a traffic signal.	15	-	-
B. Adequate trial of less restrictive remedies has failed to reduce collision frequency.	☐ YES	☑ NO	0%
SIGNAL JUSTIFICATION 5: BOTH OF 3A, 3B FULFILLED TO 100%?	☐	☐ **NO**	
BOTH OF 3A, 3B FULFILLED TO 80%?	**NO**		

JUSTIFICATION 6 - PEDESTRIAN VOLUME AND DELAY

JUSTIFICATION 5A PEDESTRIAN VOLUME	NET 8 HOUR PEDESTRIAN VOLUME AT CROSSING	0	NET 8 HOUR VEHICULAR VOLUME ON STREET BEING CROSSED	6433		
	8 Hour Vehicular Volume V_8	**Net 8 Hour Pedestrian Volume**				
		< 200	**200 - 275**	**276 - 475**	**476 - 1000**	**> 1000**
	< 1440					
	1440 - 2600					
	2601 - 7000	Not Justified				
	> 7000					

JUSTIFICATION 5B PEDESTRIAN DELAY	NET 8 HOUR VOLUME OF TOTAL PEDESTRIANS	0	NET 8 HOUR VOLUME OF DELAYED PEDESTRIANS	0	
	Net Total 8 Hour Vol. of Total Pedestrians	**Net Total 8 Hour Volume of Delayed Pedestrians**			
		< 75	**75 - 130**	**> 130**	
	< 200	Not Justified			
	200 - 300				
	> 300				

SIGNAL JUSTIFICATION 6:	BOTH JUSTIFICATION 5A AND JUSTIFICATION 5B MET?	**NO**

JUSTIFCATION SUMMARY

OVERALL	AT LEAST ONE JUSTIFICATION (1 - 5) MET?	**NO**

TRAFFIC SIGNAL WARRANT

Analyst	Lilly Chen	**Jurisdiction/Date**	Simcoe County	17 July 2018
Agency or Company	Ainley Group	**East-West Street**	Snow Valley Rd	
Analysis Period	2028 Background	**North-South Street**	Wilson Dr Southerly	

Flow Conditions	Restricted flow (urban)	**Major Street**	North-South
T Intersection	Yes	**Approach Lanes per Direction**	1
		Hours of Traffic Volume Data	AM & PM peaks only

Additional Comments existing road configuration

TRAFFIC & PEDESTRIAN VOLUMES

Hour Ending		Hour 1 AM Peak	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8 PM Peak	AM + PM 4
MAJOR STREET										
Northbound	right	154							215	92
	thru	396							628	256
	left	0								0
Southbound	right	0								0
	thru	490							610	275
	left	182							107	72
MINOR STREET										
Eastbound	right									0
	thru									0
	left									0
Westbound	right	42							201	61
	thru									0
	left	152							189	85
PEDESTRIANS										
crossing MAJOR street		0								0
delayed pedestrians		0								0
crossing MINOR street		0								0
APPROACH VOLUMES										
major		1222							1560	696
minor		194							390	146
TOTAL		1416							1950	842
CROSSING VOLUMES										
TOTAL		152							189	85
note 1		152							189	
note 2		0							0	
note 3		0							0	
3a		yes							no	
3b		no							yes	
note 4		0							0	0
note 5		0							0	0

NOTES

Traffic crossing MAJOR street defined as:

note 1: Left turns from both minor street approaches

note 2: The heaviest through volume from the minor street

note 3: 50% of the heavier left turn movement from the major street when both of the following are met:

3a: the left turn volume > 120

3b: the left turn volume + opposing volume > 720

note 4: Pedestrians crossing the major street

note 5: Pedestrians experiencing delays of 10 seconds or more in crossing the major street

ACCIDENT HISTORY

Reportable accidents over the past 36 months susceptible to correction by a traffic signal.	-

Ainley GROUP CONSULTING ENGINEERS PLANNERS

TRAFFIC SIGNAL WARRANT

JUSTIFICATION 1 - MINIMUM VEHICLE VOLUME

JUSTIFICATION	GUIDANCE	HOUR ENDING: AM Peak	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	PM Peak	No. of hours with compliance: 100%	80%+	
1A	TOTAL TRAFFIC VOLUME ENTERING INTERSECTION (vph) (2 way Total)	1416	842	842	842	842	842	842	1950	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 720 (1 lane approach on main road) OR VOL x 100 / 900 (2 or more lane approach on main road)	100%	100%	100%	100%	100%	100%	100%	100%	8	8	100%
1B	TRAFFIC VOLUME ON MINOR STREET (vph) (2 way Total)	194	146	146	146	146	146	146	390	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 170 (full intersection) OR VOL x 100 / 255 (tee intersection)	76%	57%	57%	57%	57%	57%	57%	100%	1	1	65%
(RESTRICTED FLOW)		**BOTH 1A AND 1B 100% FULFILLED EACH OF 8 HOURS**										**NO**
SIGNAL JUSTIFICATION 1:		**LESSER OF 1A OR 1B AT LEAST 80% FULFILLED EACH OF 8 HOURS**										**NO**

JUSTIFICATION 2 - DELAY TO CROSS TRAFFIC

JUSTIFICATION	GUIDANCE	HOUR ENDING: Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8	No. of hours with compliance: 100%	80%+	
2A	MAIN ROAD TRAFFIC VOLUME (vph) (2 way Total)	1222	696	696	696	696	696	696	1560	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 720 (1 lane approach on main road) OR VOL x 100 / 900 (2 or more lane approach on main road)	100%	97%	97%	97%	97%	97%	97%	100%	2	8	97%
2B	CROSSING TRAFFIC VOLUME (vph) (2 way Total)	152	85	85	85	85	85	85	189	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 75	100%	100%	100%	100%	100%	100%	100%	100%	8	8	100%
(RESTRICTED FLOW)		**BOTH 2A AND 2B 100% FULFILLED EACH OF 8 HOURS**										**NO**
SIGNAL JUSTIFICATION 2:		**LESSER OF 2A OR 2B AT LEAST 80% FULFILLED EACH OF 8 HOURS**										**YES**

JUSTIFICATION 3 - VOLUME/DELAY COMBINATION JUSTIFICATION

JUSTIFICATION SATISFIED 80% OR MORE				**Two Justifications Satisfied 80% or more**
Justification 1	-	Minimum Vehicle Volume	NO	**NO**
Justification 2	-	Delay to Cross Traffic	YES	

JUSTIFICATION 4 - MINIMUM FOUR-HOUR VEHICLE VOLUME

JUSTIFICATION 5 - COLLISION EXPERIENCE

	Warrant Value	Number of Collisions	% Fulfillment
A. Reportable collisions over 36 consecutive months susceptible to correction by a traffic signal.	15	-	-
B. Adequate trial of less restrictive remedies has failed to reduce collision frequency.	☐ YES	☑ NO	0%
SIGNAL JUSTIFICATION 5: BOTH OF 3A, 3B FULFILLED TO 100%?	☐	☐ **NO**	
BOTH OF 3A, 3B FULFILLED TO 80%?	**NO**		

JUSTIFICATION 6 - PEDESTRIAN VOLUME AND DELAY

JUSTIFICATION 5A PEDESTRIAN VOLUME

NET 8 HOUR PEDESTRIAN VOLUME AT CROSSING: 0 — NET 8 HOUR VEHICULAR VOLUME ON STREET BEING CROSSED: 8415

8 Hour Vehicular Volume V_8	Net 8 Hour Pedestrian Volume: < 200	200 - 275	276 - 475	476 - 1000	> 1000
< 1440					
1440 - 2600					
2601 - 7000					
> 7000	Not Justified				

JUSTIFICATION 5B PEDESTRIAN DELAY

NET 8 HOUR VOLUME OF TOTAL PEDESTRIANS: 0 — NET 8 HOUR VOLUME OF DELAYED PEDESTRIANS: 0

Net Total 8 Hour Vol. of Total Pedestrians	Net Total 8 Hour Volume of Delayed Pedestrians: < 75	75 - 130	> 130
< 200	Not Justified		
200 - 300			
> 300			

SIGNAL JUSTIFICATION 6:	BOTH JUSTIFICATION 5A AND JUSTIFICATION 5B MET?	**NO**

JUSTIFCATION SUMMARY

OVERALL	AT LEAST ONE JUSTIFICATION (1 - 5) MET?	**NO**

TRAFFIC SIGNAL WARRANT

Analyst	Lilly Chen	**Jurisdiction/Date**	Simcoe County	19 July 2018
Agency or Company	Ainley Group	**East-West Street**	Snow Valley Rd	
Analysis Period	2023 Total	**North-South Street**	Wilson Dr Southerly	
Flow Conditions	Restricted flow (urban)	**Major Street**	North-South	
T Intersection	Yes	**Approach Lanes per Direction**	1	
		Hours of Traffic Volume Data	AM & PM peaks only	
Additional Comments	existing road configuration			

TRAFFIC & PEDESTRIAN VOLUMES

Hour Ending		Hour 1 AM Peak	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8 PM Peak	AM + PM 4
MAJOR STREET										
Northbound	right	108							156	66
	thru	328							521	212
	left	0								0
Southbound	right	0								0
	thru	406							505	228
	left	132							96	57
MINOR STREET										
Eastbound	right									0
	thru									0
	left									0
Westbound	right	35							159	49
	thru									0
	left	104							140	61
PEDESTRIANS										
crossing MAJOR street		0								0
delayed pedestrians		0								0
crossing MINOR street		0								0
APPROACH VOLUMES										
major		974							1278	563
minor		139							299	110
TOTAL		1113							1577	673
CROSSING VOLUMES										
TOTAL		104							140	61
note 1		104							140	
note 2		0							0	
note 3		0							0	
3a		yes							no	
3b		no							no	
note 4		0							0	0
note 5		0							0	0

NOTES

Traffic crossing MAJOR street defined as:

note 1: Left turns from both minor street approaches

note 2: The heaviest through volume from the minor street

note 3: 50% of the heavier left turn movement from the major street when both of the following are met:

3a: the left turn volume > 120

3b: the left turn volume + opposing volume > 720

note 4: Pedestrians crossing the major street

note 5: Pedestrians experiencing delays of 10 seconds or more in crossing the major street

ACCIDENT HISTORY

Reportable accidents over the past 36 months susceptible to correction by a traffic signal.	-

Ainley GROUP CONSULTING ENGINEERS PLANNERS

TRAFFIC SIGNAL WARRANT

JUSTIFICATION 1 - MINIMUM VEHICLE VOLUME

JUSTIFICATION	GUIDANCE	HOUR ENDING: AM Peak	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	PM Peak	No. of hours with compliance: 100%	80%+	
1A	TOTAL TRAFFIC VOLUME ENTERING INTERSECTION (vph) (2 way Total)	1113	673	673	673	673	673	673	1577	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 720 (1 lane approach on main road) OR VOL x 100 / 900 (2 or more lane approach on main road)	100%	93%	93%	93%	93%	93%	93%	100%	2	8	95%
1B	TRAFFIC VOLUME ON MINOR STREET (vph) (2 way Total)	139	110	110	110	110	110	110	299	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 170 (full intersection) OR VOL x 100 / 255 (tee intersection)	55%	43%	43%	43%	43%	43%	43%	100%	1	1	52%
(RESTRICTED FLOW)		**BOTH 1A AND 1B 100% FULFILLED EACH OF 8 HOURS**										**NO**
SIGNAL JUSTIFICATION 1:		**LESSER OF 1A OR 1B AT LEAST 80% FULFILLED EACH OF 8 HOURS**										**NO**

JUSTIFICATION 2 - DELAY TO CROSS TRAFFIC

JUSTIFICATION	GUIDANCE	HOUR ENDING: Hour 1	Hour 2	Hour 3	Hour 4	Hour 5	Hour 6	Hour 7	Hour 8	No. of hours with compliance: 100%	80%+	
2A	MAIN ROAD TRAFFIC VOLUME (vph) (2 way Total)	974	563	563	563	563	563	563	1278	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 720 (1 lane approach on main road) OR VOL x 100 / 900 (2 or more lane approach on main road)	100%	78%	78%	78%	78%	78%	78%	100%	2	2	84%
2B	CROSSING TRAFFIC VOLUME (vph) (2 way Total)	104	61	61	61	61	61	61	140	100%	80%+	Average Compliance
	COMPLIANCE % VOL x 100 / 75	100%	81%	81%	81%	81%	81%	81%	100%	2	8	86%
(RESTRICTED FLOW)		**BOTH 2A AND 2B 100% FULFILLED EACH OF 8 HOURS**										**NO**
SIGNAL JUSTIFICATION 2:		**LESSER OF 2A OR 2B AT LEAST 80% FULFILLED EACH OF 8 HOURS**										**NO**

JUSTIFICATION 3 - VOLUME/DELAY COMBINATION JUSTIFICATION

JUSTIFICATION SATISFIED 80% OR MORE				**Two Justifications Satisfied 80% or more**
Justification 1	-	Minimum Vehicle Volume	NO	**NO**
Justification 2	-	Delay to Cross Traffic	NO	

JUSTIFICATION 4 - MINIMUM FOUR-HOUR VEHICLE VOLUME

JUSTIFICATION 5 - COLLISION EXPERIENCE

	Warrant Value	Number of Collisions	% Fulfillment
A. Reportable collisions over 36 consecutive months susceptible to correction by a traffic signal.	15	-	-
B. Adequate trial of less restrictive remedies has failed to reduce collision frequency.	☐ YES	☑ NO	0%
SIGNAL JUSTIFICATION 5: BOTH OF 3A, 3B FULFILLED TO 100%?	☐	☐ **NO**	
BOTH OF 3A, 3B FULFILLED TO 80%?	**NO**		

JUSTIFICATION 6 - PEDESTRIAN VOLUME AND DELAY

NET 8 HOUR PEDESTRIAN VOLUME AT CROSSING: 0 — NET 8 HOUR VEHICULAR VOLUME ON STREET BEING CROSSED: 6725

JUSTIFICATION 5A PEDESTRIAN VOLUME

8 Hour Vehicular Volume V_8	Net 8 Hour Pedestrian Volume: < 200	200 - 275	276 - 475	476 - 1000	> 1000
< 1440					
1440 - 2600					
2601 - 7000	Not Justified				
> 7000					

NET 8 HOUR VOLUME OF TOTAL PEDESTRIANS: 0 — NET 8 HOUR VOLUME OF DELAYED PEDESTRIANS: 0

JUSTIFICATION 5B PEDESTRIAN DELAY

Net Total 8 Hour Vol. of Total Pedestrians	Net Total 8 Hour Volume of Delayed Pedestrians: < 75	75 - 130	> 130
< 200	Not Justified		
200 - 300			
> 300			

SIGNAL JUSTIFICATION 6:	BOTH JUSTIFICATION 5A AND JUSTIFICATION 5B MET?	**NO**

JUSTIFCATION SUMMARY

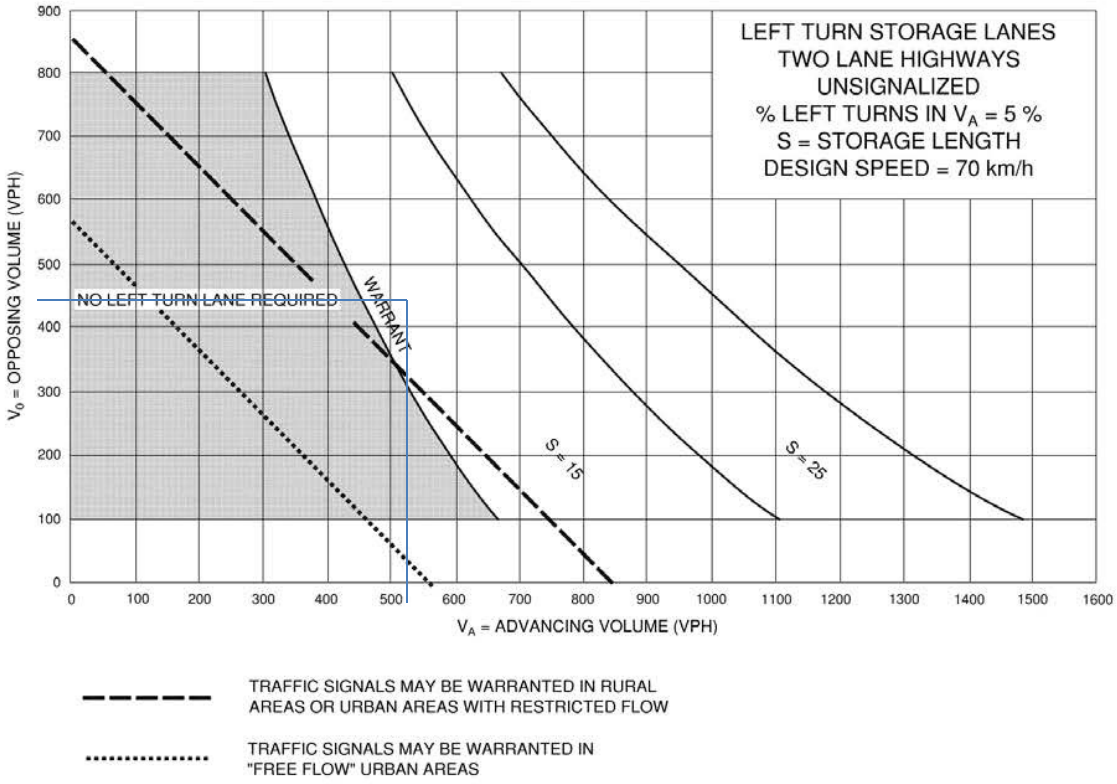
OVERALL	AT LEAST ONE JUSTIFICATION (1 - 5) MET?	**NO**

Appendix D

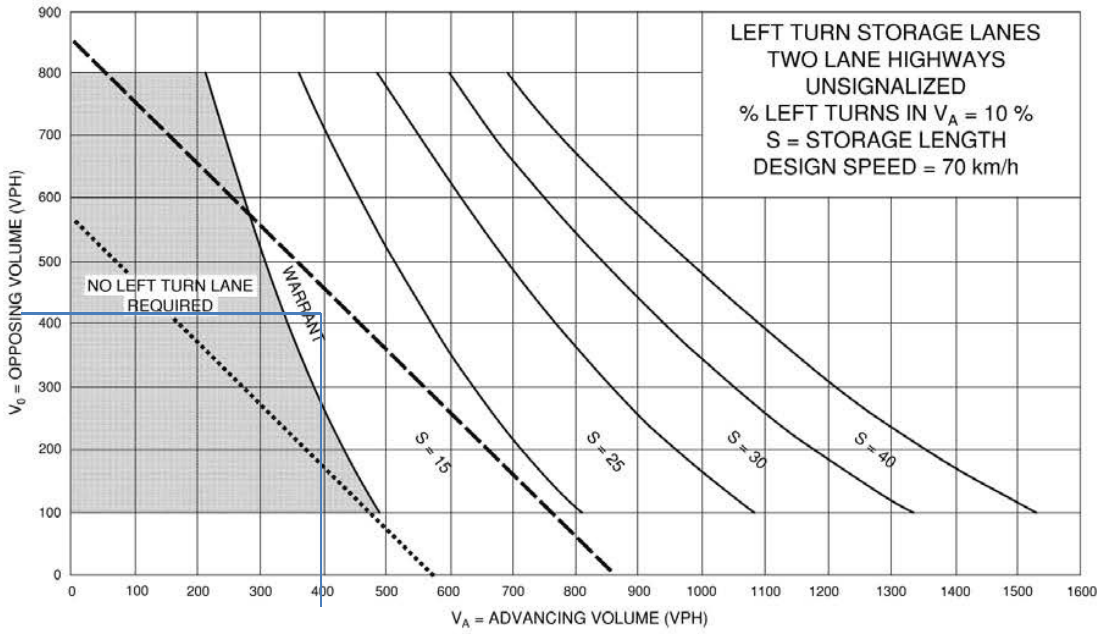
Left Turn Lane Warrants

Snow Valley Road & west site access 2033 Total PM Peak Hour Volume

Exhibit 9A-10



Snow Valley Rd & east site access 2028 Total PM Peak Hour Volume



Snow Valley Rd & east site access 2038 Total PM Peak Hour Volume