893 Sackville Drive Residential Development

Transportation Impact Study

Release:

February 15, 2023

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

893 SACKVILLE ROAD

Fathom Studio is pleased to submit this transportation impact study for the proposed multi unit residential development located at 893 Sackville Drive, in Lower Sackville, Nova Scotia. Located on the north side of Sackville Drive and just northwest of Beaverbank Road, the development includes up to about 50 residential units in a single 5 storey building complete with underground parking and some surface parking adjacent to the building. The development's single access point is located about 150 meters east of the Sackville Drive / Beaverbank Road intersection and directly across the western driveway to the Kent development across the street, to which the new proposed driveway has been aligned with.

This report shows that existing traffic volumes on Sackville Drive are relatively high but can generally be accommodated through Sackville / Beaverbank signalized intersection. This signalized intersection provides the added benefit of creating regular gaps in traffic near the intersection which helps support movements to and from minor side roads and driveways near the intersection. This includes the new driveway to the proposed development, which only generates about 10 exiting movements during the peak hours.

Entry movement typically operated at a high level of service and result in limited impact to through vehicles on Sackville Drive. Other intersections near the development operate in a similar manner. The benefits of the adjacent signalized intersection are clear when comparing results in the macroscopic SYNCHRO model (shows higher levels of delay in isolation of the signals) and performance in the microscopic SimTraffic models (shows acceptable levels of service), which accounts for the signals and other corridor operational characteristics.

The development has direct access to two transit routes passing directly by the development and is in close proximity to the Sackville Transit Terminal. Sidewalks and crosswalks adjacent to the development provide access to the abundance of commercial, recreational and institutional land uses nearby and connect to a robust active transportation network that has multiple route connections near the development.

Finally, the report identifies a number of minor roadway improvements that should be considered to support the development in the context of the overall road network.

We trust that the contents of this report are informative, clear, and provide adequate detail to evaluate the impacts of this proposed multi unit residential development at 893 Sackville Drive. Should there be any questions or comments regarding the [redacted] be undersigned.

[redacted]

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[redacted]

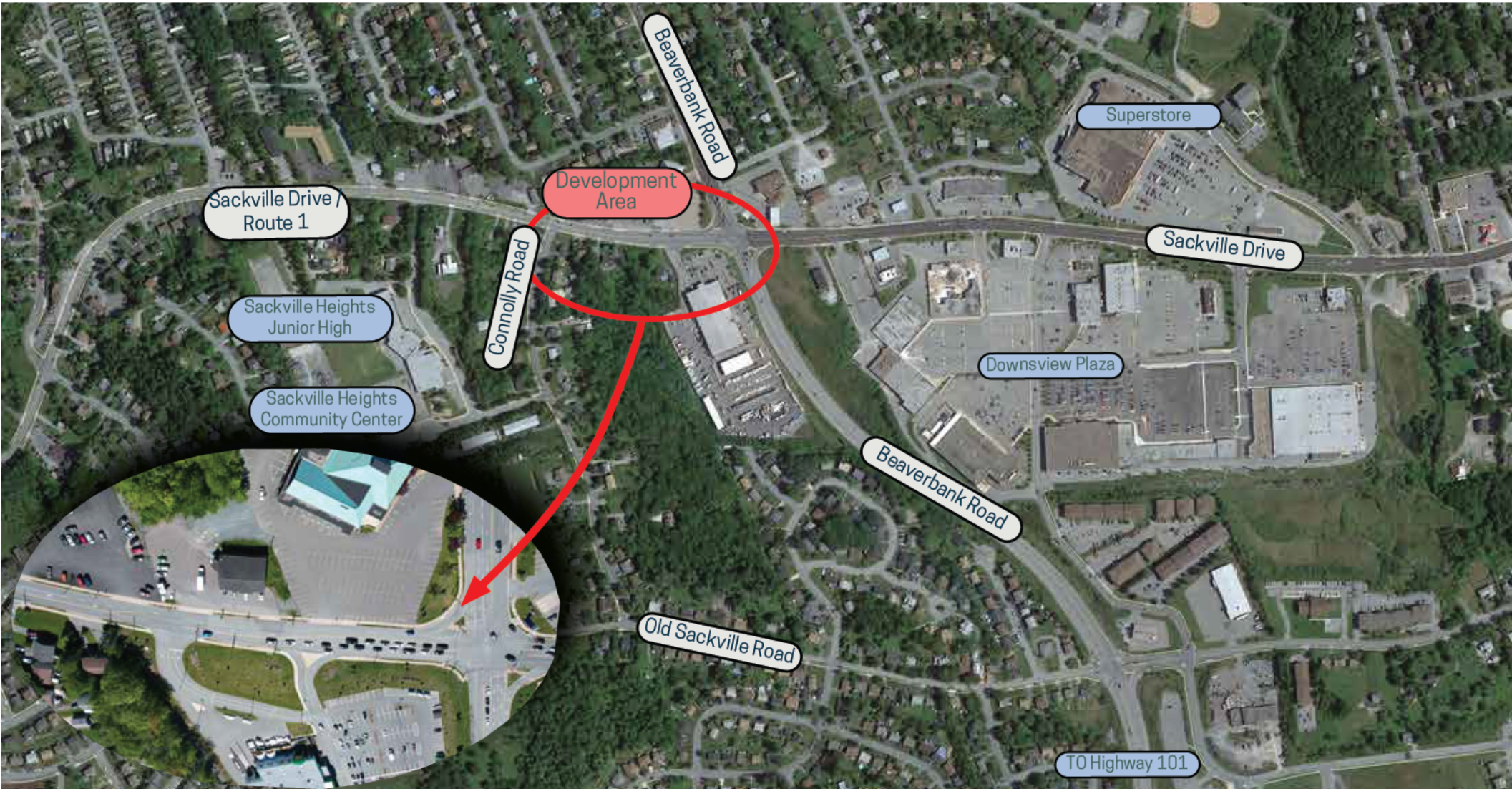
01 Introduction and Existing Conditions

1.1 Introduction and Study Area

The proposed residential development in located in the northwest quadrant of the Sackville Drive intersection with Beaverbank Road, immediately west of the Holy Trinity Parish. The development is expected to contain about 47 residential units with a small ground floor commercial component within a 5 storey building. The existing small commercial building currently on site will be removed as part of the development and the driveway to the development will be in approximately the same locations as the existing driveway.

This driveway is located about 150 meters west of Beaverbank Road and coordination / alignment is required with the new Kent Building Supplies driveway constructed in 2019.

Areas north of the development are primarily residential in nature with a variety of mixed residential, commercial and institutional land uses to the southeast and northwest along Sackville Drive. The development is well positioned within the transportation network to take advantage of a variety of routes.



Sackville Drive - West of the Development, Facing East - Sackville Drive has a three lane cross section including a single through lane in each direction and a center left turn lane. Nearest the development, the left turn lanes are dedicated providing entry movements to the west Kent driveway, Connolly Road and Beaverbank Road. West of Connolly, the center lane becomes a two way left turn lane servicing commercial and residential properties on the north and south side of Sackville Drive. Sackville Drive has a posted speed limit of 50 km/h and includes concrete curb/gutter and sidewalks on both sides of the street.

Sackville Drive - At the Development, Facing East the Sackville Drive cross section expands to a 5 lane cross section including a dedicated left turn lane, a dedicated right turn lane, and a single through lane in the eastbound direction. In the westbound direction, there are two through receiving lanes from Sackville Drive east of Beaverbank Road, which merge to a single lane by the time the proposed development's driveway is reached. Similar to other sections of Sackville Drive, the road has an urban cross section complete with concrete curb/gutter and sidewalks on both sides of the street. This section of roadway also includes a large right in, right out only driveway from the Kent that is located about 70 meters east of the northern full access driveway.

Beaverbank Road - South of the Development Facing North is a rural undivided asphalt roadway connecting to Highway 101 and includes two through lanes in each direction and dedicated left turn lanes at major intersections with Beaverbank Road and Old Sackville Road. Otherwise, this section of roadway is a controlled access segment of highway with gravel shoulders, ditch drainage and no sidewalks along both sides of the road. Both intersections along Beaverbank Road at Sackville Drive and Old Sackville Drive are signalized.

Beaverbank Road - North of the Development Facing South is an urban undivided roadway that transitions to a rural cross section further north of Sackville Drive. The roadway has a two lane cross section for the majority of its length to the north and expends to a 5 lane cross section approaching the Sackville Drive intersection, including a dedicated left, a single dedicated through lane, and a shared through / right lane in the southbound direction. There are a number of driveways near the intersection to the Irving Gas station and the Church. Concrete sidewalk is provided on both sides of the road with the east side sidewalk terminating at Douglas Avenue about 70 meters north of Sackville Drive.

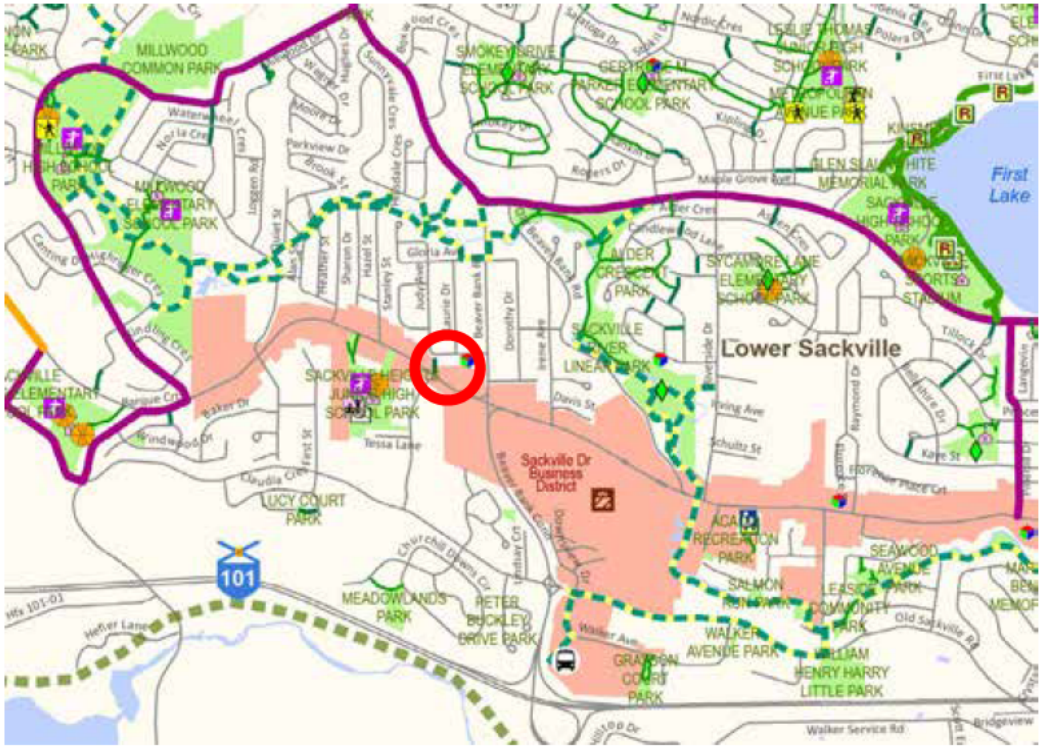
1.2 Other Transportation Infrastructure

Active Transportation

The figure to the right shows a screenshot from the HRM Active Transportation Plan documents contained on their website. The figure shows a variety of existing and future planned trails in the vicinity of the development, though there are limited higher order active transportation opportunities immediately adjacent to the development.

That said, the development is well connected to surrounding areas by sidewalk infrastructure and roadway crossings allowing resident direct access to a wide variety of local commercial land uses. Crosswalks are present at the intersection of Beaverbank Road and Sackville Drive, as well as on the northwest side of the Connolly Road intersection with Sackville Drive.

Directly across Sackville Drive, residents have access to the Sackville Heights Junior High and Community Center including soccer fields and other recreational areas.



Photos: from Active Kings, Draft AT Plan

Transit

This area of Lower Sackville is very well serviced by Halifax Transit due to the proximity of the Sackville Transit terminal located about 1 kilometer south of the development near the Highway 101 interchange with Beaverbank Road. This results in the availability of two routes directly on Beaverbank Road immediately adjacent to the development as well as six additional routes on Beaverbank Road about 120 meters east of the site.

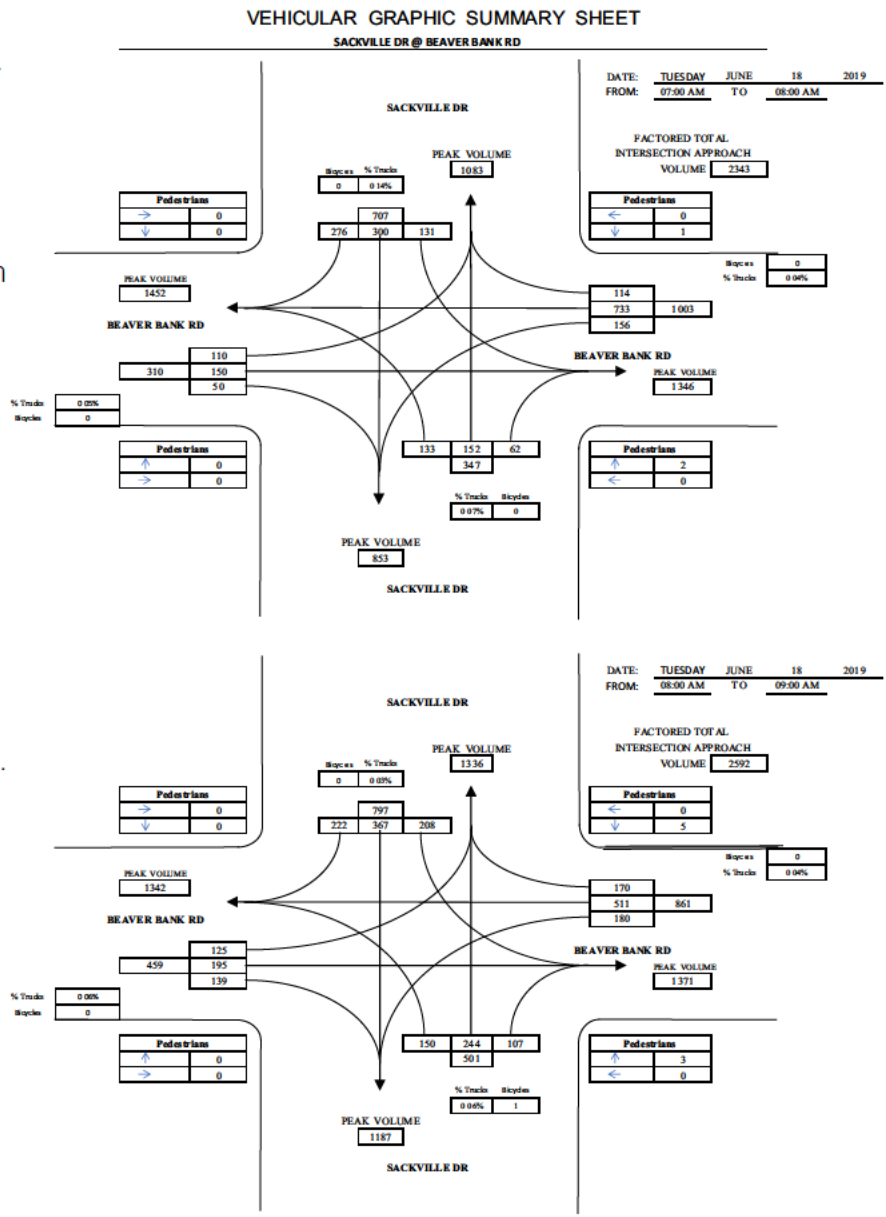
The nearest bus stops to the development are on Sackville Drive about 30 meters east of the development and on Beaverbank Road about 100 meters north of Sackville Drive.

02 Existing and Future Traffic Conditions

2.1 Existing Traffic

Recent and historical traffic counts were requested from HRM and used to build a baseline traffic model for the section of Sackville Drive between Beaverbank Road and Connolly Drive. The counts included road section data and intersection turning movements counts that included vehicle, truck, and bus classifications and was reviewed for the presence of other active transportation uses. The combination of data was used to establish a 2022 baseline traffic volume mode for the AM and PM peak hours.

To evaluate the potential impacts of the new development, a Synchro/SimTraffic simulation traffic model was developed to gain a better understanding of existing and future traffic operations.



2.2 Project Time Horizons

It is anticipated that this development will be constructed over the next 5 year period, therefore a analysis time horizon of 10 years (5 years with full build out plus 5 years) was established. As the proposed development is expected to generate a very low volume of traffic, the analysis scenarios in this report were limited to:

- 2022 baseline conditions (existing conditions)
- 2032 conditions with background traffic only added, and
- 2032 conditions with background traffic and developed traffic added to the road network.

2.3 Analysis Periods

As a residential development located near the intersection of two roads that are considered to be heavily used commuter corridors, the logical peak periods for analysis are the weekday AM and PM peak hours of traffic. While it is expected that the Sackville Drive commercial corridor will generate high volumes on the weekend as well, peaking characteristics are generally more distributed throughout the day, plus the proposed development can be expected to generate lower weekend peak volumes.

2.4 Traffic Growth

This area has experienced steady growth over the past decade, which is expected to continue given the current housing demands in the market. The corridor is also somewhat capacity constrained in general which is likely to limited growth in the area until larger scale roadway improvements are implemented. For the purposes of this study, a background traffic growth rate of 1.5% per year was assumed.

03 Proposed Development

3.1 Trip Generation, Distribution, Assignment

Trip Generation

The proposed development plan includes up to 50 units contained within a single multi storey building. New trips generated by the development were based on guidance provided in the Institute of Transportation Engineers (ITE) Trip Generation Guide (10th Edition). The table below summarizes the trip generation estimates for the new site once full build out has been completed.

Land Use	Trip Code	# Units	Variable	AM Peak			PM Peak		
				Enter	Exit	TOTAL	Enter	Exit	TOTAL
Multi Unit, Mid Rise	220	50	Units	4	13	17	14	9	23
TOTALS		**50**		**4**	**13**	**17**	**14**	**9**	**23**

Transit, Active Transportation and Transportation Demand Management

This residential development is located in a high use transit area and along a busy commuter route. It is highly likely that transit options will be utilized from this development for some of the anticipated trips. To a lesser extent, some residents may utilize active transportation modes. Many of these types of trips are already accounted for in the trip generation assumptions made within the ITE Trip Generation Guide, therefore for the purposes of this study, no reductions in generated trips have been applied.

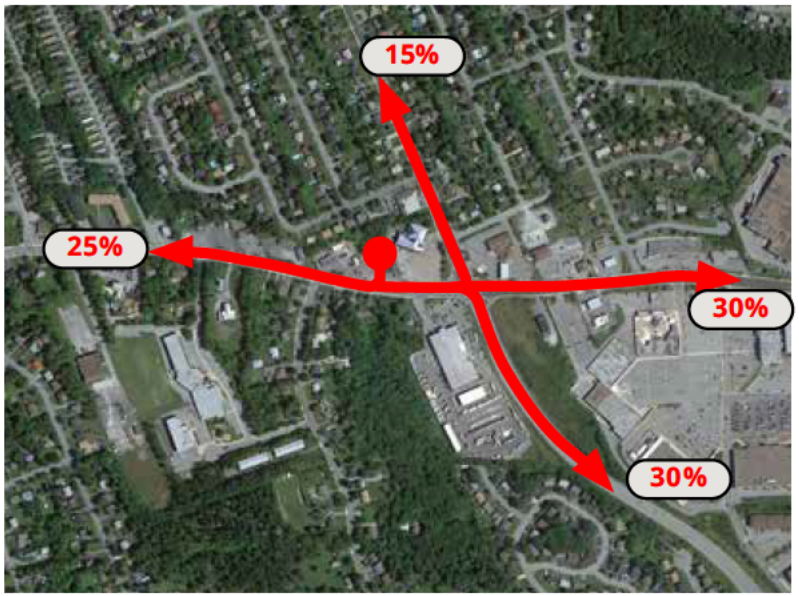
Trip Distribution

Trips to and from the proposed site during the peak hours are expected to distribute themselves in a manner similar to today's traffic distribution. It is expected that the majority of traffic will be destined to and from Sackville Drive to the east of the site and Beaverbank Road to Highway 101 as shown in the Figure to the right.

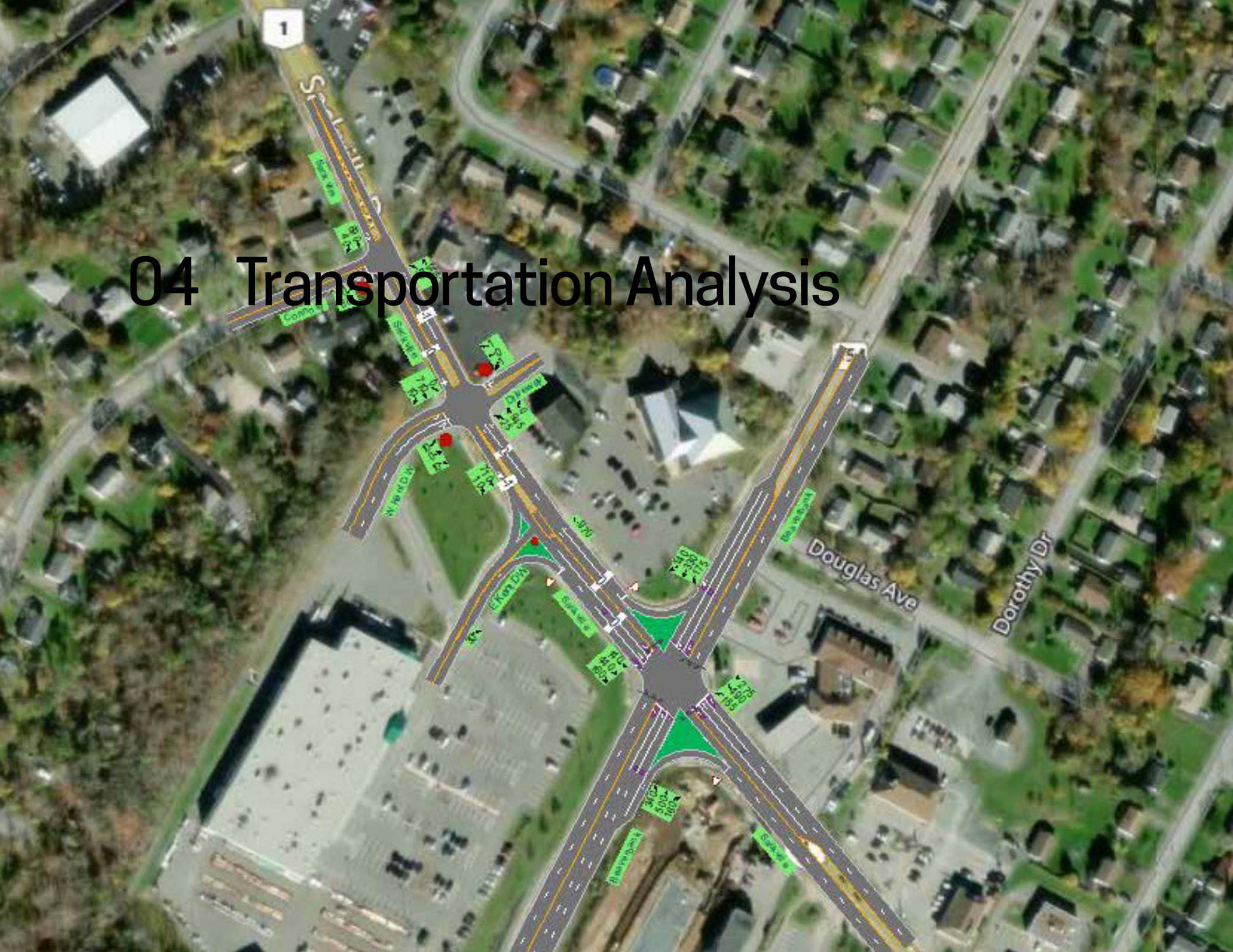
The distribution of traffic shown in the figure was used within the Synchro Traffic Impact Analysis module to distribute development traffic throughout the road network.

Trip Assignment

The trips were assigned as entry end exit movements at the single development driveway to Sackville Drive and further downstream through the Beaverbank / Sackville Drive signalized intersection. The traffic volume assignments used in the analysis based on these assumptions are included in Appendix C of this report.



04 Transportation Analysis



4.1 Transportation Modeling

A traffic model was prepared using the Synchro/SimTraffic (v.11) platform for the weekday AM and PM peak hours of analysis. The model was used to gain insight into traffic operations and capacity utilization at the main intersections potentially impacted by the proposed development under each of the traffic loading scenarios.

The AM and PM peak hour analyses were based on the collected traffic counts adjusted to account for seasonal adjustments. Results are provided for the following scenarios:

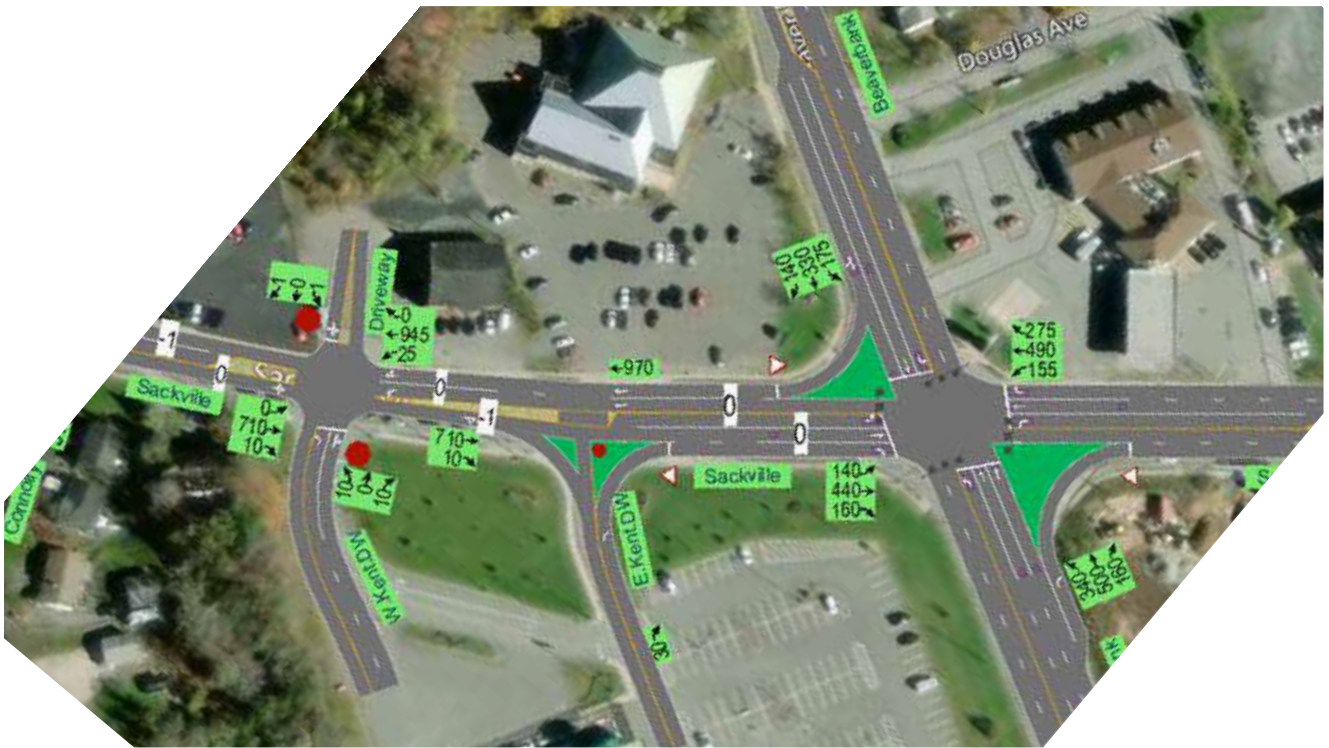
- **2022 Baseline** peak hour volumes;
- **2032** future conditions with **background traffic only**.
- **2032** future conditions with **background traffic and full development** traffic.

The model preparation utilized the Traffic Impact Analysis tool set contained within the Synchro model to distribute development traffic throughout the study area and for the application of future growth of background traffic.

To simplify the presentation of results, intersections are discussed independently with performance results being summarized in a table for each of the time horizons for easy comparison. All sections include supporting text that highlight key considerations at the intersection and connecting roadways. Key performance indicators include:

- Peak hour analysis volumes (vehicles / hour);
- Volume to capacity ratios (V/C);
- Average Delay (sec/vehicle); and,
- 95% Queue Lengths (in meters).

Additional details are provided in the Synchro reports provided in Appendix D of this report.



4.2 Sackville Drive, Driveway and Kent Driveway

The two tables to the right show the analysis results for the AM peak hour (top table) and PM peak hour (bottom table) for the existing 2022 baseline conditions (yellow), future 2032 scenario with background traffic only (green), and 2032 traffic conditions with background and development traffic (blue) added to the road network. The tables clearly show that there is virtually no difference between the future 2032 with and without the development in place due to the very low volumes of traffic generated by the proposed development.

The critical movements at this intersection are the northbound left turn movements from the Kent Driveway, and the southbound left turns from the new driveway to Sackville Drive. Capacity utilization (Volume to Capacity V/C) and queue lengths for these movements are very low due to the low volumes of exiting traffic present on the new driveway. In general, queues on the new driveway will seldom ever exceed a single vehicle length.

The AM peak results show delay values in the mid thirty second range which is considered reasonable and certainly comparable or less than many other driveways along Sackville Drive. The AM peak values are taken from the SYNCHRO model and suggest that actual values are likely lower than shown in the table to the upper right. The PM peak delay values were taken from the SimTraffic microsimulation model which better accounts for the impact of the traffic signal and characteristics of a roadway corridor that may experience some congestion. Again, while delay values are slightly higher, capacity utilization is low and queues remain very short.

AM PEAK		Sackville - EB			Sackville - WB			Kent Driveway NB			New Driveway SB		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2022 Base ine Vo umes	Vol *veh/hr*	0	800	10	35	515	0	10	0	10	0	0	0
	V/C Ratio	0.00			0.05	0.32		0.06	0.03		0.00		
	Delay *sec/veh*	0.0			9.8	0.0		25.1	13.6		0.0		
	95% Q *m*	0.0			1.1	0.0		1.4	0.6		0.0		
2032 Background Traffic On y	Vol *veh/hr*	0	928	12	41	598	0	12	0	12	0	0	0
	V/C Ratio	0.00			0.06	0.37		0.10	0.04		0.00		
	Delay *sec/veh*	0.0			10.5	0.0		36.2	15.1		0.0		
	95% Q *m*	0.0			1.5	0.0		2.5	0.8		0.0		
2032 Background Deve opmnt	Vol *veh/hr*	1	928	12	41	598	3	12	0	12	12	0	3
	V/C Ratio	0.00			0.06	0.37		0.0	0.04		0.11		
	Delay *sec/veh*	0.0			10.5	0.0		36.7	15.1		33.7		
	95% Q *m*	0.0			1.5	0.0		2.6	0.8		2.8		

PM PEAK		Sackville Dr - EB			Sackville Dr - WB			Kent Driveway NB			New Driveway SB		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2022 Base ine Vo umes	Vol *veh/hr*	0	709	10	50	890	0	10	0	10	0	0	0
	V/C Ratio	0.00	0.42		0.06	0.52		0.12	0.02		0.00		
	Delay *sec/veh*	3.2	1.9		12.5	0.4		54.5	12.4		0.0		
	95% Q *m*	0.0	0.0		1.4	0.0		3.0	0.5		0.0		
2032 Background Traffic On y	Vol *veh/hr*	0	823	12	58	1033	0	12	0	12	0	0	0
	V/C Ratio	0.00	0.49		0.07	0.61		0.36	0.03		0.00		
	Delay *sec/veh*	2.6	0.2		9.5	0.6		41.6	28.3		0.0		
	95% Q *m*	0.0	0.0		1.8	0.0		8.9	0.6		0.0		
2032 Background Deve opmnt	Vol *veh/hr*	5	823	12	58	1033	12	12	0	12	9	0	3
	V/C Ratio	0.01	0.49		0.07	0.61		0.39	0.03		0.31		
	Delay *sec/veh*	1.6	0.4		7.6	0.7		41.6	6.7		40.3		
	95% Q *m*	0.2	0.0		1.8	0.0		9.4	0.6		7.9		

NOTE: Red Text - Delay results taken from SimTraffic

4.3 Sackville Drive and Beaverbank Road Driveway

The two tables to the right show the analysis results for the AM peak hour (top table) and PM peak hour (bottom table) for the existing 2022 baseline conditions (yellow), future 2032 scenario with background traffic only (green), and 2032 traffic conditions with background and development traffic (blue) added to the road network. Similarly, to the previous discussion, the tables clearly show virtually no difference between the future 2032 scenarios.

The new traffic volumes generated by the development represent about 0.5% of the total traffic through this intersection and therefore have no impact on the overall operations of the intersection.

From and operational and safety perspective, the new proposed driveway is adequately spaced from this intersection to remain outside of the functional area of this intersection. The new development therefore has not impact or influence on this intersection other than ensuring that the Sackville Drive corridor between the Sackville / Beaverbank intersection and points east operate in a consistent manner that reasonably meets driver expectation on Sackville Drive and the adjoining roadways.

AM PEAK		Sackville - EB			Sackville - WB			Beaverbank - NB			Beaverbank - SB		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2022 Base ine Vo umes	Vol *veh/hr*	210	370	230	150	250	110	130	200	140	180	520	170
	V/C Ratio	0.50	0.70	0.38	0.48	0.48	0.20	0.50	0.19	0.24	0.37	0.65	
	Delay *sec/veh*	17.8	30.9	5.0	17.8	24.5	2.4	19.3	19.1	4.0	15.3	22.8	
	95% Q *m*	31.0	74.8	14.5	22.8	48.5	5.3	20.2	18.3	9.5	26.8	56.4	
2032 Background Traffic On y	Vol *veh/hr*	244	429	267	174	290	128	151	232	162	209	603	197
	V/C Ratio	0.64	0.82	0.42	0.64	0.55	0.23	0.61	0.22	0.28	0.44	0.75	
	Delay *sec/veh*	22.4	38.1	5.7	24.6	26.1	3.5	24.2	19.4	4.8	16.6	25.7	
	95% Q *m*	36.0	99.5	17.0	29.3	56.3	8.0	24.2	20.6	12.1	31.0	67.7	
2032 Background Deve opmnt	Vol *veh/hr*	246	434	272	174	291	128	152	232	162	209	603	198
	V/C Ratio	0.65	0.83	0.43	0.64	0.55	0.23	0.61	0.22	0.28	0.44	0.75	
	Delay *sec/veh*	22.8	38.8	5.9	24.6	26.1	3.5	24.4	19.4	4.8	16.6	25.8	
	95% Q *m*	36.8	100	17.7	29.3	56.4	8.0	24.5	20.6	12.1	31.0	67.7	

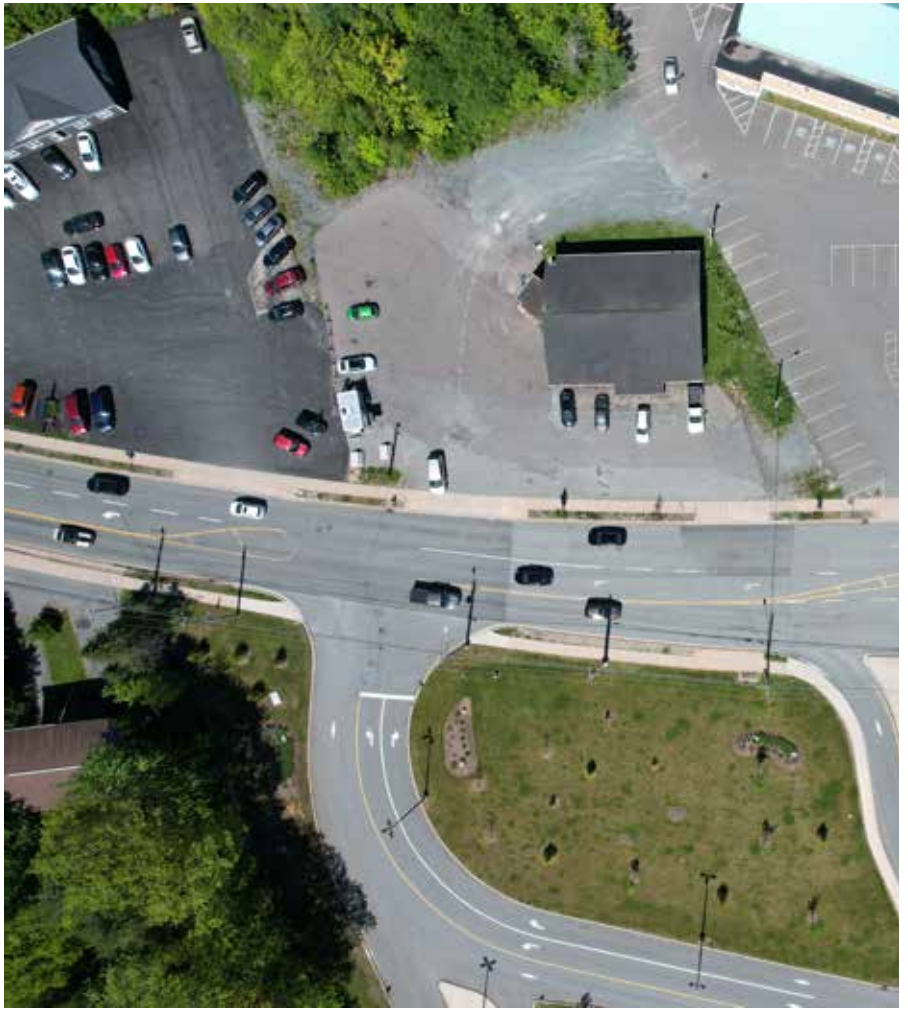
PM PEAK		Sackville - EB			Sackville - WB			Beaverbank - NB			Beaverbank - SB		
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
2022 Base ine Vo umes	Vol *veh/hr*	140	440	160	155	480	275	330	500	160	175	330	130
	V/C Ratio	0.59	0.71	0.25	0.59	0.78	0.38	0.72	0.52	0.30	0.43	0.61	
	Delay *sec/veh*	25.8	33.8	3.9	24.9	37.2	4.5	26.5	30.5	5.9	19.3	32.2	
	95% Q *m*	26.0	103	11.1	28.5	119	16.2	63.1	56.3	14.2	31.8	51.1	
2032 Background Traffic On y	Vol *veh/hr*	162	511	186	180	557	319	383	580	186	203	383	151
	V/C Ratio	0.76	0.83	0.29	0.84	0.90	0.43	0.89	0.61	0.33	0.55	0.71	
	Delay *sec/veh*	39.1	40.7	4.6	50.2	48.5	4.5	44.5	32.1	5.8	22.1	35.3	
	95% Q *m*	42.6	136	13.8	51.7	155	17.3	101	65.8	15.3	36.6	60.4	
2032 Background Deve opmnt	Vol *veh/hr*	164	514	189	180	562	319	388	580	186	203	383	153
	V/C Ratio	0.77	0.83	0.29	0.84	0.91	0.43	0.90	0.61	0.33	0.55	0.71	
	Delay *sec/veh*	40.0	41.1	4.6	50.2	49.8	4.5	46.2	32.1	5.8	22.1	35.2	
	95% Q *m*	43.7	138	13.8	51.7	158	17.3	103	65.8	15.3	36.6	60.4	

4.4 Other Transportation Considerations

Warrants - Traffic Signals and Dedicated Left Turn Lanes

Development volumes represent a very low percentage of traffic on Sackville Drive. Left turn movements into the development are expected to be about 1 2 vehicles during the AM peak and 5 6 vehicles during the PM peak. In the worst case situation, this represents 1 vehicle every 10 minutes entering the development. A dedicated left turn lane, therefore is not warranted at this location.

Once the driveway is constructed, there may be a requirement for minor adjustments to the existing line painting on the roadway to ensure left turn and hatched areas are clear and coordinated with the Kent and new proposed driveway. As shown in the figure to the right, it would be possible to repaint the existing hatched area just west of the driveway intersection as a short storage left turn lane into the development. This option could be explored further at the detailed design stages of this development.



Sight Distances

The proposed development is well set back from the intersection, as are buildings immediately beside the proposed development. There are no other obstructions adjacent to the proposed driveway that have a negative impact on sight distances to this driveway. It was noted that the development is located on the inside of a horizontal curve, though the large radius of the curve does not create any sight distance restrictions.

05 Discussion and Conclusions

5.1 Conclusions

This Transportation Impact Study (TIS) was prepared to evaluate the anticipated impacts of the proposed multi unit residential development located at 893 Sackville Drive, in Lower Sackville, Nova Scotia. The development is located on the north side of Sackville Drive and just northwest of Beaverbank Road, separated from Beaverbank Road by the Holy Trinity Parish and associated parking lot.

The development includes up to about 50 residential units in a single 5 storey building complete with underground parking and some surface parking adjacent to the building. The development is also expected to include a small ground floor commercial component, intended to primarily serve local residents and generate relatively low traffic volumes. The development's single access point is located about 150 meters east of the Sackville Drive / Beaverbank Road intersection and directly across the western driveway to the Kent development across the street, to which the new proposed driveway has been aligned with. As detailed design proceeds, care should be taken in designing the geometry and line painting plan to ensure clear and proper driver guidance through this intersection for all movements.

The very low volume of traffic entering and exiting the development suggest that the driveway should be configured with a singe entry and exit lane (2 lane cross section) as analysis results show that vehicle queuing will seldom exceed a single vehicle. Analysis results also show the right and left turn entry movements to the development from Sackville Drive do not create any significant impediment to through traffic on Sackville Drive. While a dedicated left turn lane from Sackville Drive to the new development is not explicitly warranted, consideration could be given to converting the existing hatched area just west of the intersection to a short left storage segment for further minimize the potential impact to through traffic on Sackville Drive.

This report shows that existing traffic volumes on Sackville Drive are relatively high but can generally be accommodated through Sackville / Beaverbank signalized intersection. This signalized intersection provides the added benefit of creating regular gaps in traffic near the intersection which helps support movements to and from minor side roads and driveways near the intersection. This includes the new driveway to the proposed development, which only generates about 10 exiting movements during the peak hours. The benefits of the adjacent signalized intersection are clear when comparing results in the macroscopic SYNCHRO model (shows higher levels of delay in isolation of the signals) and performance in the microscopic SimTraffic models (shows acceptable levels of service), which accounts for the signals and other corridor operational characteristics.

The proposed development represents less than 0.5% of total traffic through the Sackville Drive / Beaverbank Road intersection and therefore has not influence on operations at that intersection. Similarly, the very low volumes of traffic to and from the development have minimal impact on intersections adjacent to the development.

The development has direct access to two transit routes passing directly by the development and is in close proximity to the Sackville Transit Terminal. Sidewalks and crosswalks adjacent to the development provide access to the abundance of commercial, recreational and institutional land uses nearby and connect to a robust active transportation network that has multiple route connections near the development.

APPENDIX A

TRAFFIC COUNTS

HALIFAX REGIONAL MUNICIPALITY
TRANSPORTATION & PUBLIC WORKS
TRAFFIC & RIGHT OF WAY

CODE NO. 16 TM 084

MANUAL TRAFFIC COUNTS

INTERSECTION: BEAVER BANK ROAD AT SACKVILLE DRIVE

WEATHER: RAIN
RECORDER: AD & TV

DAY	DATE	MONTH	YEAR
FRIDAY	6	MAY	2016

STREET:		SACKVILLE DRIVE			SACKVILLE DRIVE			BEAVER BANK ROAD			BEAVER BANK ROAD			
TIME:		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
07:00:00 AM	07:15:00 AM	31	34	20	17	69	90	24	156	9	13	23	16	502
07:15:00 AM	07:30:00 AM	34	30	17	33	83	82	33	154	26	17	29	20	558
07:30:00 AM	07:45:00 AM	44	55	19	48	99	65	35	175	16	18	33	24	631
07:45:00 AM	08:00:00 AM	30	69	21	47	92	67	43	148	34	32	48	25	656
TOTAL		139	188	77	145	343	304	135	633	85	80	133	85	2347
PEAK			404			792			853			298		
15 MIN PEAK			480			848			904			420		
PEAK HOUR FACTOR			0.84			0.93			0.94			0.71		
TWO WAY TOTALS			967			1145			1208			1374		FACTOR
														0.96
														2253

DAY	DATE	MONTH	YEAR
FRIDAY	6	MAY	2016

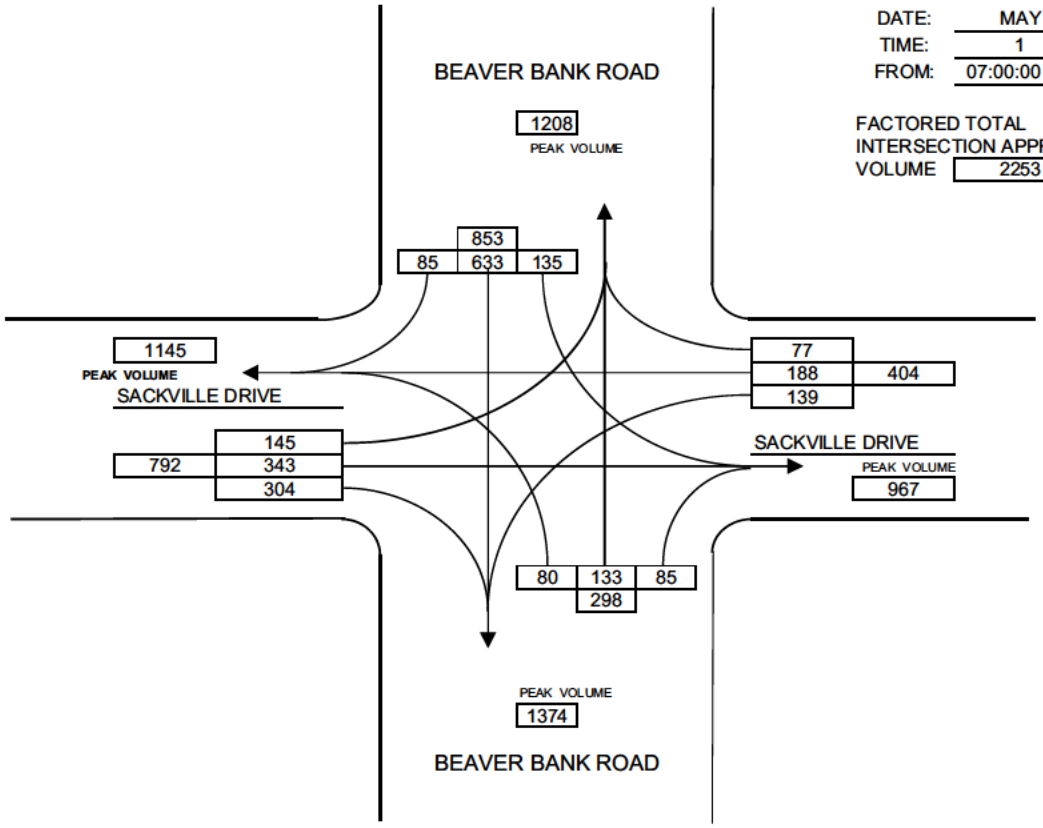
TIME:		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
08:00:00 AM	08:15:00 AM	36	54	23	47	76	66	49	165	37	29	50	27	659
08:15:00 AM	08:30:00 AM	29	73	24	60	110	55	43	126	35	40	40	30	665
08:30:00 AM	08:45:00 AM	30	64	29	34	116	68	47	128	38	29	38	39	660
08:45:00 AM	09:00:00 AM	27	70	29	40	108	50	49	94	37	31	38	37	610
TOTAL		122	261	105	181	410	239	188	513	147	129	166	133	2594
PEAK			488			830			848			428		
15 MIN PEAK			504			900			1004			440		
PEAK HOUR FACTOR			0.97			0.92			0.84			0.97		
TWO WAY TOTALS			1219			1367			1300			1302		FACTOR
														0.96
														2490

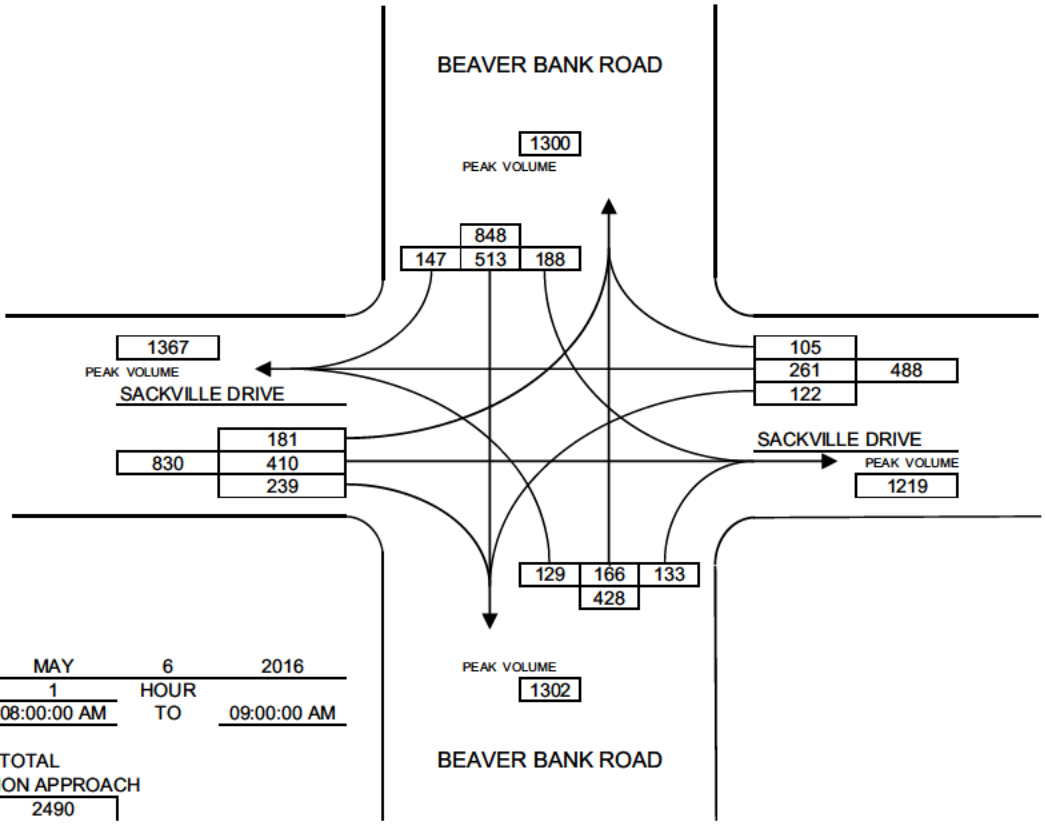
VEHICULAR GRAPHIC SUMMARY SHEET

INTERSECTION : BEAVER BANK ROAD AT SACKVILLE DRIVE

DATE: MAY 6 2016
TIME: 1 HOUR
FROM: 07:00:00 AM TO 08:00:00 AM

FACTORED TOTAL INTERSECTION APPROACH VOLUME 2253





DATE: MAY 6 2016
TIME: 1 HOUR
FROM: 08:00:00 AM TO 09:00:00 AM

FACTORED TOTAL INTERSECTION APPROACH VOLUME 2490

HALIFAX REGIONAL MUNICIPALITY
TRANSPORTATION & PUBLIC WORKS
TRAFFIC & RIGHT OF WAY

CODE NO. 16 TM 084

MANUAL TRAFFIC COUNTS

INTERSECTION: BEAVER BANK ROAD AT SACKVILLE DRIVE

WEATHER: PARTLY CLOUDY
RECORDER: AD

DAY	DATE	MONTH	YEAR
MON	9	MAY	2016

STREET:		SACKVILLE DRIVE			SACKVILLE DRIVE			BEAVER BANK ROAD			BEAVER BANK ROAD			
TIME:		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
04:00:00 PM	04:15:00 PM	29	124	84	51	79	44	54	51	42	72	136	32	798
04:15:00 PM	04:30:00 PM	40	130	77	51	82	39	43	66	45	65	127	55	820
04:30:00 PM	04:45:00 PM	43	125	76	54	71	26	32	55	44	87	115	43	771
04:45:00 PM	05:00:00 PM	43	129	67	46	84	29	52	66	52	96	135	24	823
TOTAL		155	508	304	202	316	138	181	238	183	320	513	154	3212
PEAK			967			656			602			987		
15 MIN PEAK			988			696			680			1020		
PEAK HOUR FACTOR			0.98			0.94			0.89			0.97		
TWO WAY TOTALS			1618			1667			1621			1518		FACTOR
														1.04
														3340

DAY	DATE	MONTH	YEAR
MON	9	MAY	2016

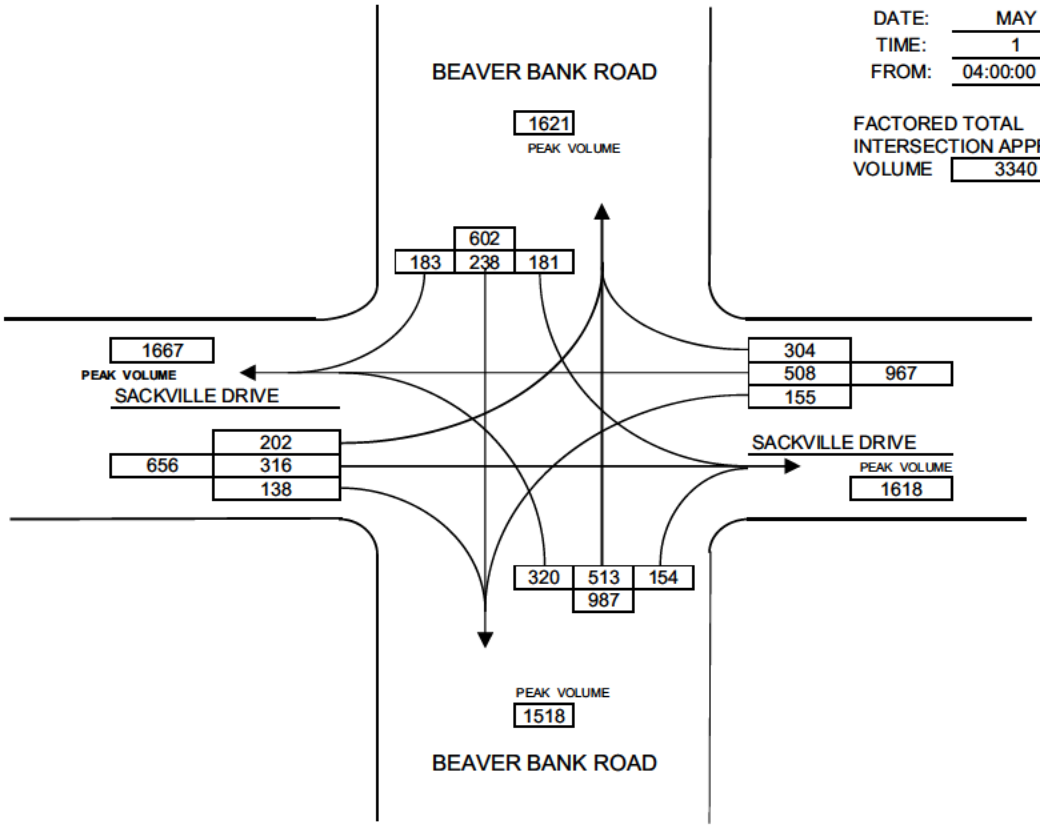
TIME:		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
05:00:00 PM	05:15:00 PM	29	106	89	33	101	40	44	67	34	73	115	45	776
05:15:00 PM	05:30:00 PM	27	150	79	37	80	30	40	58	48	70	157	50	826
05:30:00 PM	05:45:00 PM	31	111	76	40	68	35	50	62	38	96	121	39	767
05:45:00 PM	06:00:00 PM	33	101	69	45	80	24	45	64	50	54	97	36	698
TOTAL		120	468	313	155	329	129	179	251	170	293	490	170	3067
PEAK			901			613			600			953		
15 MIN PEAK			1024			696			636			1108		
PEAK HOUR FACTOR			0.88			0.88			0.94			0.86		
TWO WAY TOTALS			1579			1544			1558			1453		FACTOR
														1.04
														3190

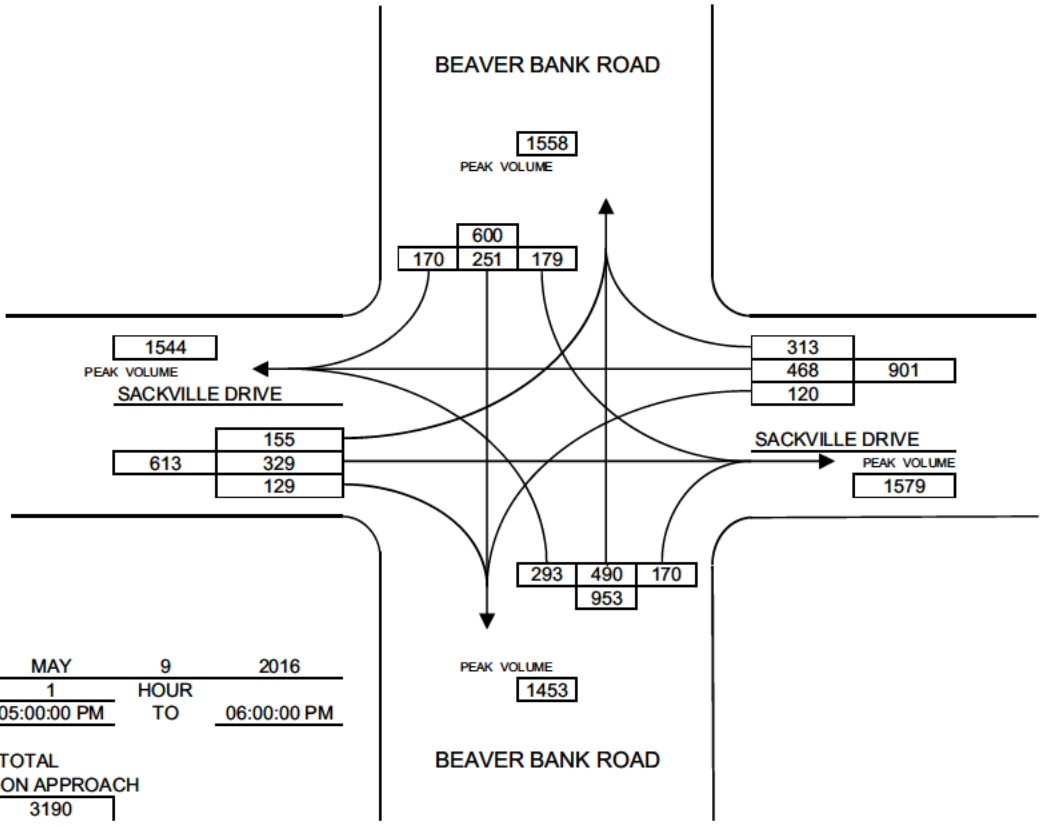
VEHICULAR GRAPHIC SUMMARY SHEET

INTERSECTION : BEAVER BANK ROAD AT SACKVILLE DRIVE

DATE: MAY 9 2016
TIME: 1 HOUR
FROM: 04:00:00 PM TO 05:00:00 PM

FACTORED TOTAL INTERSECTION APPROACH VOLUME 3340





DATE: MAY 9 2016
TIME: 1 HOUR
FROM: 05:00:00 PM TO 06:00:00 PM

FACTORED TOTAL INTERSECTION APPROACH VOLUME 3190

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(902) 490 6680 trasks@halifax.ca

Count Name: BEAVER BANK ROAD AT SACKVILLE DRIVE
Site Code: 16RQ211
Start Date: 06/11/2016

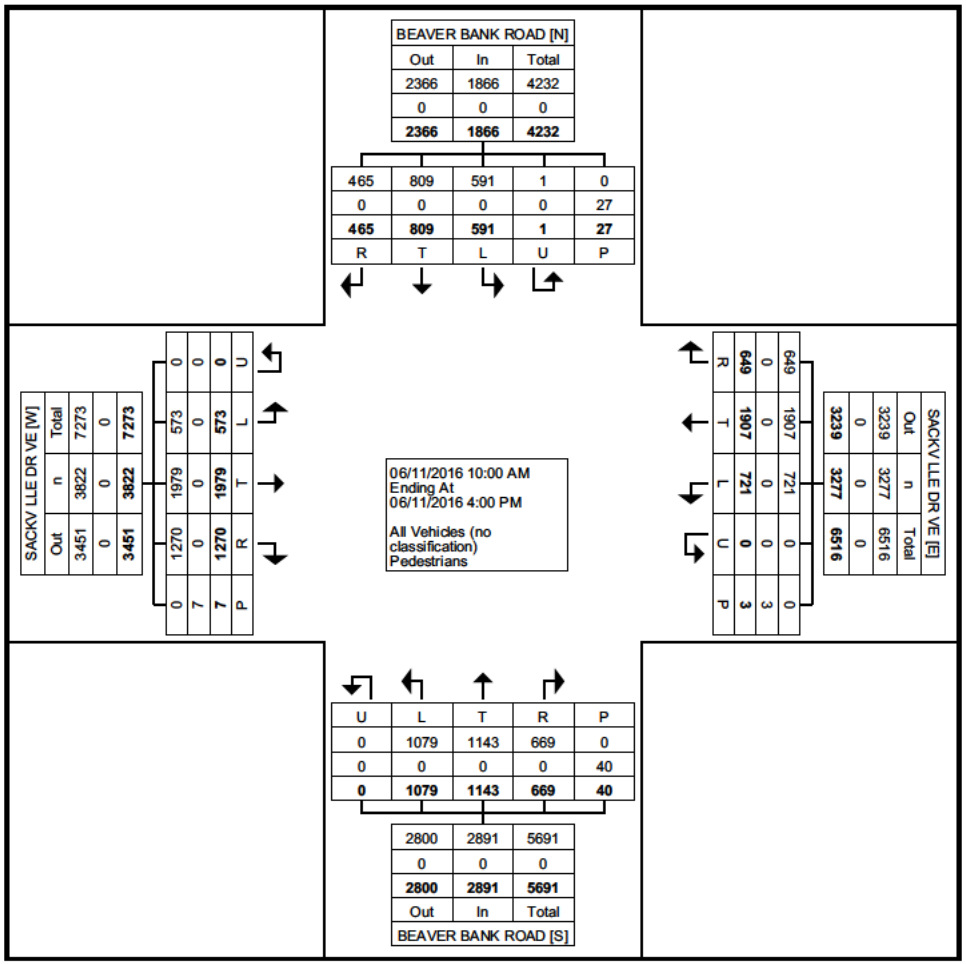
Turning Movement Data

Start Time	BEAVER BANK ROAD Southbound						SACKVILLE DRIVE Westbound						BEAVER BANK ROAD Northbound						SACKVILLE DRIVE Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
10:00 AM	22	34	28	0	1	84	24	114	51	0	0	189	50	60	47	0	5	157	57	130	31	0	0	218	648
10:15 AM	30	48	21	0	2	99	32	100	47	0	0	179	44	94	68	0	0	206	79	129	26	0	2	234	718
10:30 AM	20	45	37	0	1	102	49	134	47	0	0	230	36	93	78	0	2	207	81	145	26	0	0	252	791
10:45 AM	35	48	32	0	1	115	36	117	49	0	0	202	49	85	73	0	7	207	66	117	48	0	0	231	755
Hourly Total	107	175	118	0	5	400	141	465	194	0	0	800	179	332	266	0	14	777	283	521	131	0	2	935	2912
11:00 AM	27	36	44	0	1	107	30	127	53	0	0	210	45	93	67	0	0	205	83	129	35	0	0	247	769
11:15 AM	32	40	39	1	0	112	34	127	47	0	0	208	46	87	77	0	2	210	91	134	24	0	0	249	779
11:30 AM	29	46	39	0	0	114	56	118	44	0	0	218	37	68	79	0	7	184	88	120	41	0	0	249	765
11:45 AM	39	49	30	0	2	118	54	122	44	0	2	220	54	75	81	0	0	210	80	120	51	0	0	251	799
Hourly Total	127	171	152	1	3	451	174	494	188	0	2	856	182	323	304	0	9	809	342	503	151	0	0	996	3112
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2:00 PM	32	52	35	0	3	119	49	130	42	0	0	221	35	65	56	0	0	156	83	124	30	0	4	237	733
2:15 PM	37	66	40	0	2	143	42	112	35	0	0	189	32	56	68	0	4	156	83	123	36	0	0	242	730
2:30 PM	25	51	35	0	4	111	35	108	45	0	0	188	41	71	69	0	3	181	92	107	40	0	0	239	719
2:45 PM	28	49	40	0	1	117	47	129	47	0	1	223	34	48	78	0	3	160	67	104	28	0	0	199	699
Hourly Total	122	218	150	0	10	490	173	479	169	0	1	821	142	240	271	0	10	653	325	458	134	0	4	917	2881
3:00 PM	23	50	39	0	0	112	47	116	48	0	0	211	33	67	50	0	2	150	77	129	49	0	0	255	728
3:15 PM	26	57	48	0	2	131	35	116	44	0	0	195	42	55	64	0	4	161	77	138	30	0	0	245	732
3:30 PM	31	80	45	0	4	156	44	120	34	0	0	198	45	65	61	0	1	171	88	129	32	0	1	249	774
3:45 PM	29	58	39	0	3	126	35	117	44	0	0	196	46	61	63	0	0	170	78	101	46	0	0	225	717
Hourly Total	109	245	171	0	9	525	161	469	170	0	0	800	166	248	238	0	7	652	320	497	157	0	1	974	2951
Grand Total	465	809	591	1	27	1866	649	1907	721	0	3	3277	669	1143	1079	0	40	2891	1270	1979	573	0	7	3822	11856
Approach %	24.9	43.4	31.7	0.1	-	-	19.8	58.2	22.0	0.0	-	-	23.1	39.5	37.3	0.0	-	-	33.2	51.8	15.0	0.0	-	-	-
Total %	3.9	6.8	5.0	0.0	-	15.7	5.5	16.1	6.1	0.0	-	27.6	5.6	9.6	9.1	0.0	-	24.4	10.7	16.7	4.8	0.0	-	32.2	-
All Vehicles (no classification)	465	809	591	1	-	1866	649	1907	721	0	-	3277	669	1143	1079	0	-	2891	1270	1979	573	0	-	3822	11856
% All Vehicles (no classification)	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	27	-	-	-	-	-	3	-	-	-	-	-	40	-	-	-	-	-	7	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(902) 490 6680 trasks@halifax.ca

Count Name: BEAVER BANK ROAD AT SACKVILLE DRIVE
Site Code: 16RQ211
Start Date: 06/11/2016



Turning Movement Data Plot

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(902) 490 6680 trasks@halifax.ca

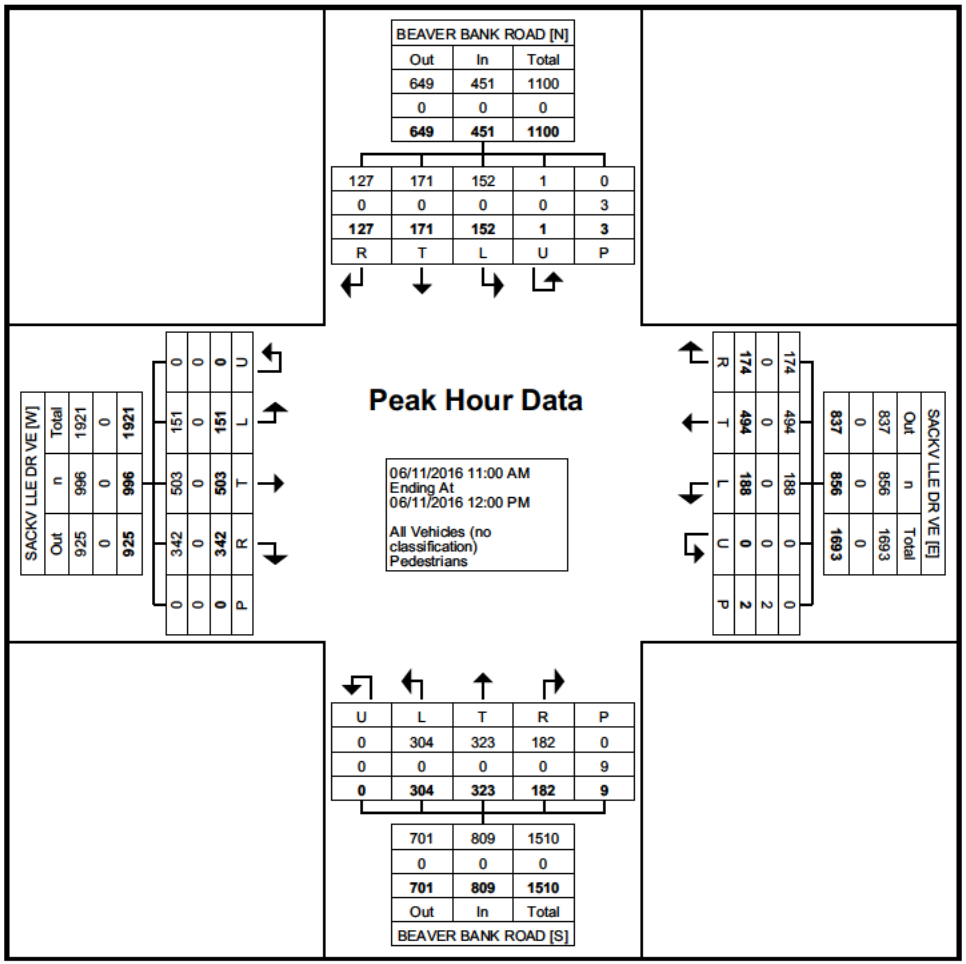
Count Name: BEAVER BANK ROAD AT SACKVILLE DRIVE
Site Code: 16RQ211
Start Date: 06/11/2016

Turning Movement Peak Hour Data (11:00 AM)

Start Time	BEAVER BANK ROAD Southbound						SACKVILLE DRIVE Westbound						BEAVER BANK ROAD Northbound						SACKVILLE DRIVE Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	27	36	44	0	1	107	30	127	53	0	0	210	45	93	67	0	0	205	83	129	35	0	0	247	769
11:15 AM	32	40	39	1	0	112	34	127	47	0	0	208	46	87	77	0	2	210	91	134	24	0	0	249	779
11:30 AM	29	46	39	0	0	114	56	118	44	0	0	218	37	68	79	0	7	184	88	120	41	0	0	249	765
11:45 AM	39	49	30	0	2	118	54	122	44	0	2	220	54	75	81	0	0	210	80	120	51	0	0	251	799
Total	127	171	152	1	3	451	174	494	188	0	2	856	182	323	304	0	9	809	342	503	151	0	0	996	3112
Approach %	28.2	37.9	33.7	0.2	-	-	20.3	57.7	22.0	0.0	-	-	22.5	39.9	37.6	0.0	-	-	34.3	50.5	15.2	0.0	-	-	-
Total %	4.1	5.5	4.9	0.0	-	14.5	5.6	15.9	6.0	0.0	-	27.5	5.8	10.4	9.8	0.0	-	26.0	11.0	16.2	4.9	0.0	-	32.0	-
PHF	0.814	0.872	0.864	0.250	-	0.956	0.777	0.972	0.887	0.000	-	0.973	0.843	0.868	0.938	0.000	-	0.963	0.940	0.938	0.740	0.000	-	0.992	0.974
All Vehicles (no classification)	127	171	152	1	-	451	174	494	188	0	-	856	182	323	304	0	-	809	342	503	151	0	-	996	3112
% All Vehicles (no classification)	100.0	100.0	100.0	100.0	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	9	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(902) 490 6680 trasks@halifax.ca



Turning Movement Peak Hour Data Plot (11:00 AM)

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(902) 490 6680 trasks@halifax.ca

Count Name: BEAVER BANK ROAD AT SACKVILLE DRIVE
Site Code: 16RQ211
Start Date: 06/11/2016

Turning Movement Peak Hour Data (3:00 PM)

Start Time	BEAVER BANK ROAD Southbound						SACKVILLE DRIVE Westbound						BEAVER BANK ROAD Northbound						SACKVILLE DRIVE Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
3:00 PM	23	50	39	0	0	112	47	116	48	0	0	211	33	67	50	0	2	150	77	129	49	0	0	255	728
3:15 PM	26	57	48	0	2	131	35	116	44	0	0	195	42	55	64	0	4	161	77	138	30	0	0	245	732
3:30 PM	31	80	45	0	4	156	44	120	34	0	0	198	45	65	61	0	1	171	88	129	32	0	1	249	774
3:45 PM	29	58	39	0	3	126	35	117	44	0	0	196	46	61	63	0	0	170	78	101	46	0	0	225	717
Total	109	245	171	0	9	525	161	469	170	0	0	800	166	248	238	0	7	652	320	497	157	0	1	974	2951
Approach %	20.8	46.7	32.6	0.0	-	-	20.1	58.6	21.3	0.0	-	-	25.5	38.0	36.5	0.0	-	-	32.9	51.0	16.1	0.0	-	-	-
Total %	3.7	8.3	5.8	0.0	-	17.8	5.5	15.9	5.8	0.0	-	27.1	5.6	8.4	8.1	0.0	-	22.1	10.8	16.8	5.3	0.0	-	33.0	-
PHF	0.879	0.766	0.891	0.000	-	0.841	0.856	0.977	0.885	0.000	-	0.948	0.902	0.925	0.930	0.000	-	0.953	0.909	0.900	0.801	0.000	-	0.955	0.953
All Vehicles (no classification)	109	245	171	0	-	525	161	469	170	0	-	800	166	248	238	0	-	652	320	497	157	0	-	974	2951
% All Vehicles (no classification)	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0	100.0	100.0	-	-	100.0	100.0
Pedestrians	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
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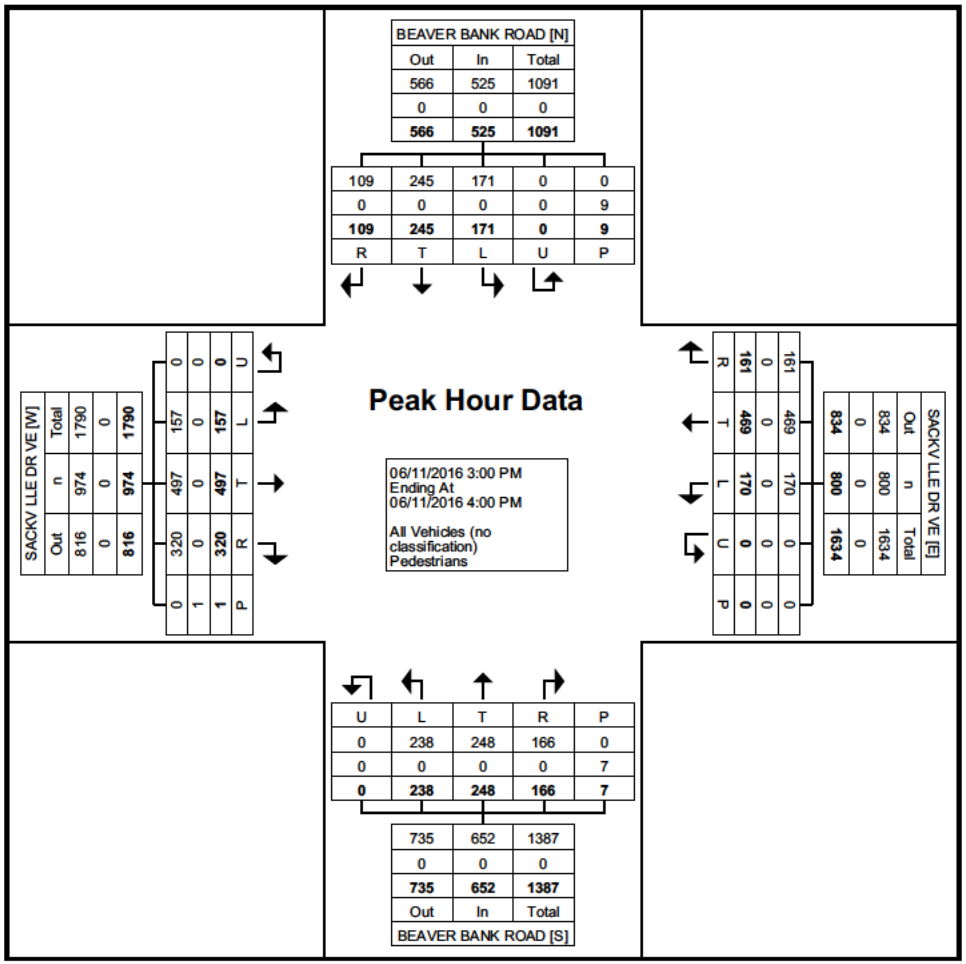


Turning Movement Peak Hour Data Plot (3:00 PM)

Halifax Regional Municipality (Dartmouth, NS)
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(902) 490 6680 trasks@halifax.ca

HALIFAX REGIONAL MUNICIPALITY
TRANSPORTATION & PUBLIC WORKS
TRAFFIC MANAGEMENT

CODE NO 19TM021

MANUAL TRAFFIC COUNTS

INTERSECTION: SACKVILLE DR @ BEAVER BANK RD

WEATHER: SUNNY
RECORDER: MICHAEL SMITH & JACOB C

DAY	DATE	MONTH	YEAR
TUESDAY	18	JUNE	2019

STREET		BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			
TIME		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
07 00 00 AM	07 15 00 AM	39	188	20	23	31	9	22	83	49	32	26	11	533
07 15 00 AM	07 30 00 AM	36	183	23	23	27	9	33	58	68	34	45	10	549
07 30 00 AM	07 45 00 AM	35	184	30	28	45	12	45	73	97	32	37	20	638
07 45 00 AM	08 00 00 AM	46	178	41	36	47	20	31	86	62	35	44	21	647

TOTAL	156	733	114	110	150	50	131	300	276	133	152	62	2367
PEAK		1003			310			707			347		
4(15 MIN PEAK)		1060			412			860			400		
PEAK HOUR FACTOR		0 95			0 75			0 82			0 87		AAWT
TWO WAY TOTALS		1346			1452			1083			853		FACTOR
													0 99
													2343

DAY	DATE	MONTH	YEAR
TUESDAY	18	JUNE	2019

TIME		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
08 00 00 AM	08 15 00 AM	43	133	50	26	44	32	30	98	72	37	47	24	636
08 15 00 AM	08 30 00 AM	45	150	39	46	55	43	55	86	54	48	61	18	700
08 30 00 AM	08 45 00 AM	48	135	47	27	51	32	59	103	54	27	64	23	670
08 45 00 AM	09 00 00 AM	44	93	34	26	45	32	64	80	42	38	72	42	612

TOTAL	180	511	170	125	195	139	208	367	222	150	244	107	2618
PEAK		861			459			797			501		
4(15 MIN PEAK)		936			576			864			608		
PEAK HOUR FACTOR		0 92			0 8			0 92			0 82		AAWT
TWO WAY TOTALS		1371			1342			1336			1187		FACTOR
													0 99
													2592

Intersection Peak Hour

		BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:45 08:00	Car	171	574	166	118	182	132	200	359	211	144	199	78	2534
	Truck	11	22	11	7	13	7	8	8	11	3	17	8	126
	Bicycle	0	0	0	0	0	0	0	0	0	0	1	0	1
	Vehicle Total	182	596	177	125	195	139	208	367	222	147	217	86	2661
	Approach Factor		0 9			0 8			0 92			0 89		FACTOR
														1
														2661

Peak Hour Pedestrians

		NE			NW			SW			SE			Total
07:45 08:00		Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
	Pedestrians	3	0	3	0	0	0	0	0	0	0	3	3	6

Car traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7 00	36	182	18	20	30	8	20	82	49	32	23	10	510
7 15	35	177	21	22	25	9	32	56	66	34	44	7	528
7 30	31	182	28	26	43	12	44	71	94	32	33	15	611
7 45	42	171	37	34	46	19	29	84	61	35	41	17	616
8 00	39	129	46	25	40	29	28	96	65	35	41	24	597
8 15	43	145	38	44	53	42	54	85	52	48	56	16	676
8 30	47	129	45	25	46	30	56	98	53	26	61	21	637
8 45	42	90	32	24	43	31	62	80	41	33	69	40	587
TOTAL	315	1205	265	220	326	180	325	652	481	275	368	150	4762

Truck traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7 00	3	6	2	3	1	1	2	1	0	0	3	1	23
7 15	1	6	2	1	2	0	1	2	2	0	1	3	21
7 30	4	2	2	2	2	0	1	2	3	0	4	5	27
7 45	4	7	4	2	1	1	2	2	1	0	3	4	31
8 00	4	4	4	1	4	3	2	2	7	2	6	0	39
8 15	2	5	1	2	2	1	1	1	2	0	5	2	24
8 30	1	6	2	2	5	2	3	5	1	1	3	2	33
8 45	2	3	2	2	2	1	2	0	1	5	3	2	25
TOTAL	21	39	19	15	19	9	14	15	17	8	28	19	223

Bicycle traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7 00	0	0	0	0	0	0	0	0	0	0	0	0	0
7 15	0	0	0	0	0	0	0	0	0	0	0	0	0
7 30	0	0	0	0	0	0	0	0	0	0	0	0	0
7 45	0	0	0	0	0	0	0	0	0	0	0	0	0
8 00	0	0	0	0	0	0	0	0	0	0	1	0	1
8 15	0	0	0	0	0	0	0	0	0	0	0	0	0
8 30	0	0	0	0	0	0	0	0	0	0	0	0	0
8 45	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	0	0	1	0	1

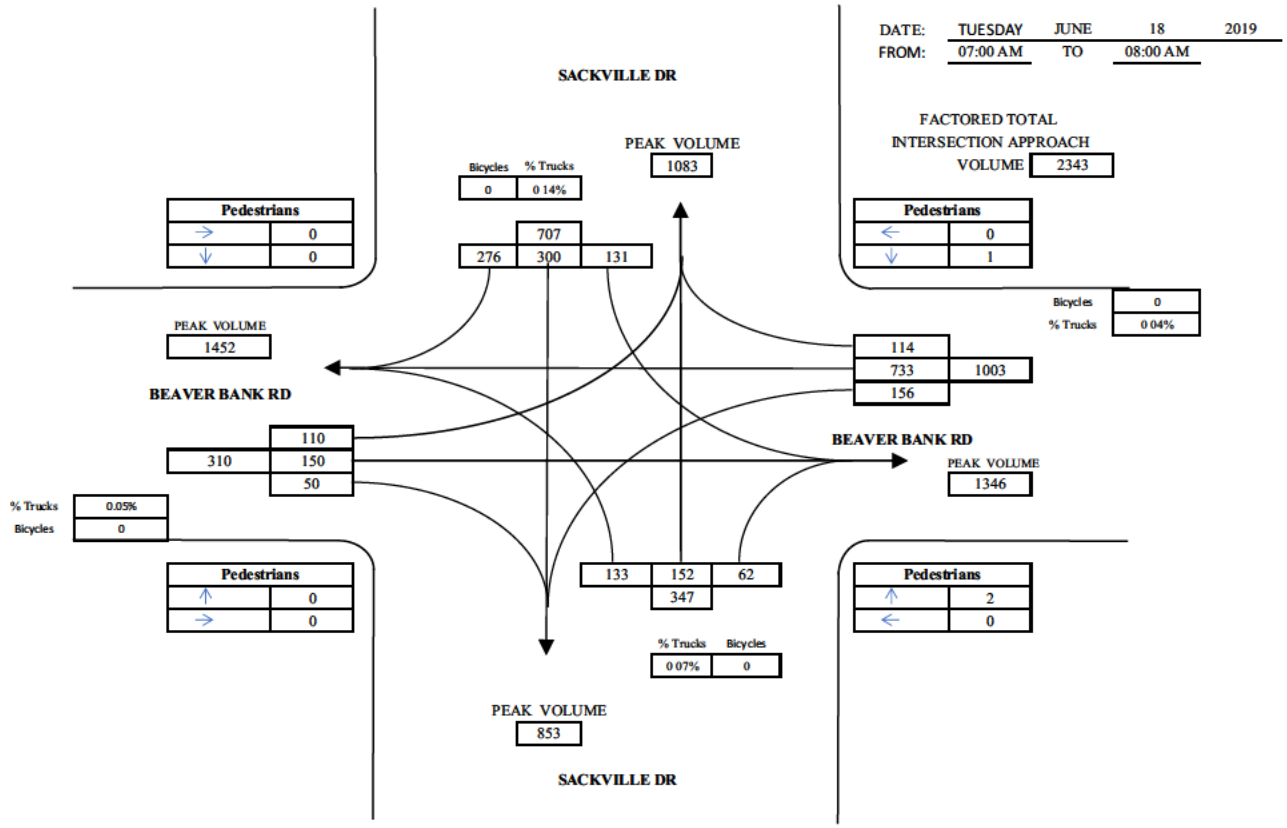
Pedestrian volumes

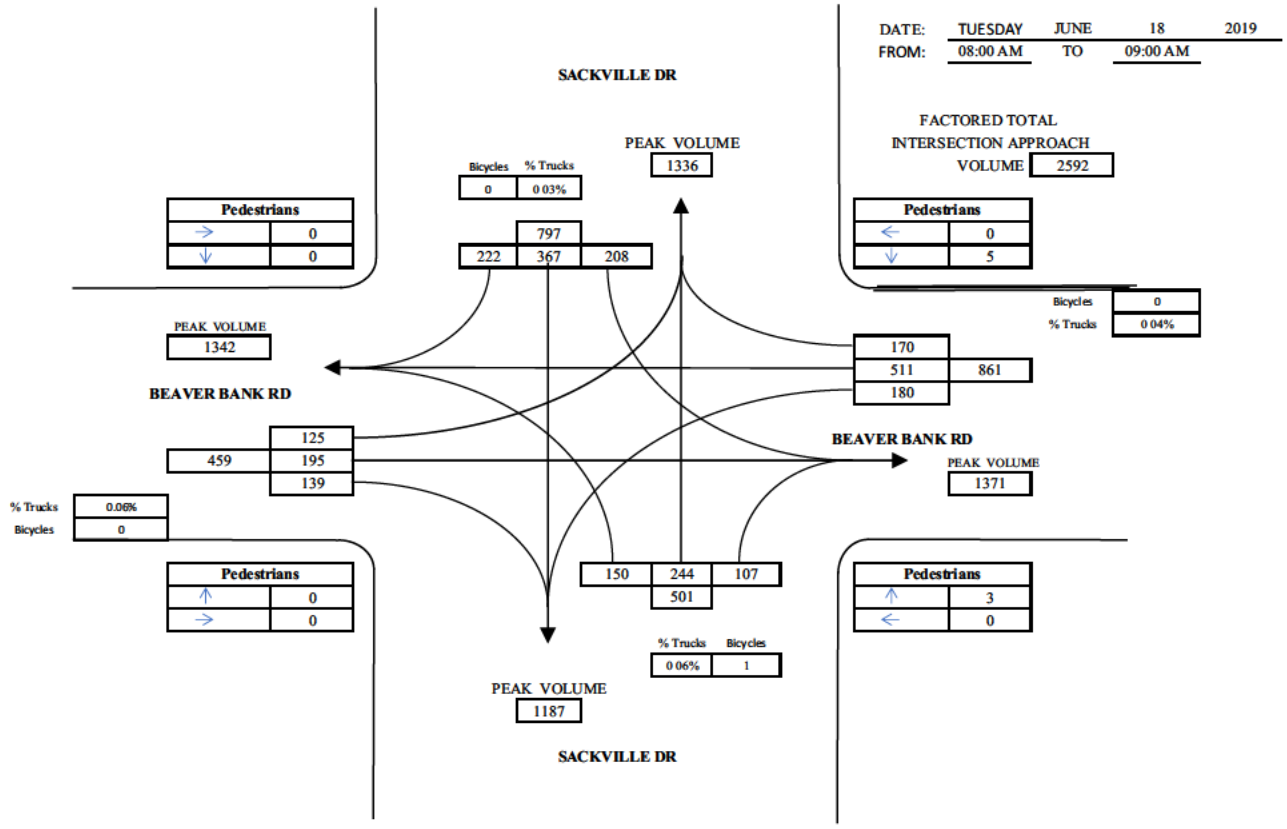
Interval starts	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
7 00	0	0	0	0	0	0	0	0	0	0	0	0	0
7 15	0	0	0	0	0	0	0	0	0	0	0	0	0
7 30	1	0	1	0	0	0	0	0	0	0	1	1	2
7 45	0	0	0	0	0	0	0	0	0	0	1	1	1
8 00	0	0	0	0	0	0	0	0	0	0	0	0	0
8 15	1	0	1	0	0	0	0	0	0	0	0	0	1
8 30	2	0	2	0	0	0	0	0	0	0	2	2	4
8 45	2	0	2	0	0	0	0	0	0	0	1	1	3
TOTAL	6	0	6	0	0	0	0	0	0	0	5	5	11

****NOTE: For AM peak, there were 22 times the SE bound through traffic on Sackville Dr was blocking access to the right turn only lane to the Beaver Bank Connector.**

VEHICULAR GRAPHIC SUMMARY SHEET

SACKVILLE DR @ BEAVER BANK RD





HALIFAX REGIONAL MUNICIPALITY
TRANSPORTATION & PUBLIC WORKS
TRAFFIC MANAGEMENT

CODE NO 19TM021

MANUAL TRAFFIC COUNTS

INTERSECTION: SACKVILLE DR @ BEAVER BANK RD

WEATHER: SUNNY
RECORDER: MICHAEL SMITH & JACOB C

DAY	DATE	MONTH	YEAR
TUESDAY	18	JUNE	2019

STREET		BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			
TIME		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
11 00 00 AM	11 15 00 AM	43	63	22	35	47	22	28	66	32	39	66	47	510
11 15 00 AM	11 30 00 AM	42	46	39	24	44	19	33	79	41	26	90	47	530
11 30 00 AM	11 45 00 AM	42	63	29	38	31	29	26	86	32	29	83	47	535
11 45 00 AM	12 00 00 PM	40	48	34	27	42	33	32	97	44	29	94	63	583
TOTAL		167	220	124	124	164	103	119	328	149	123	333	204	2158
PEAK			511			391			596			660		
4(15 MIN PEAK)			536			416			692			744		
PEAK HOUR FACTOR			0 95			0 94			0 86			0 89		AAWT
TWO WAY TOTALS			998			883			1177			1258		FACTOR
														0 99
														2136

DAY	DATE	MONTH	YEAR
TUESDAY	18	JUNE	2019

TIME		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
12 00 00 PM	12 15 00 PM	46	68	31	31	62	28	30	103	42	31	80	49	601
12 15 00 PM	12 30 00 PM	47	71	35	26	55	27	27	89	52	47	102	56	634
12 30 00 PM	12 45 00 PM	52	70	26	24	50	16	24	90	49	38	109	58	606
12 45 00 PM	01 00 00 PM	50	53	33	18	51	17	20	75	40	36	103	41	537
TOTAL		195	262	125	99	218	88	101	357	183	152	394	204	2378
PEAK			582			405			641			750		
4(15 MIN PEAK)			612			484			700			820		
PEAK HOUR FACTOR			0 95			0 84			0 92			0 91		AAWT
TWO WAY TOTALS			1105			1002			1259			1390		FACTOR
														0 99
														2354

Intersection Peak Hour

		BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11:45 12:45	Car	0	0	0	111	179	113	109	362	156	0	0	0	1030
	Truck	0	0	0	12	12	4	6	16	15	0	0	0	65
	Bicycle	0	0	0	0	0	0	0	0	0	0	0	0	0
	Vehicle Total	0	0	0	123	191	117	115	378	171	0	0	0	1095
	Approach Factor		0			0 88			0 94			0		FACTOR
														1
														1095

Peak Hour Pedestrians

		NE			NW			SW			SE			Total
11:45 12:45		Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
	Pedestrians	0	2	2	3	9	12	5	0	5	0	0	0	19

Car traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11 00	41	57	21	31	46	20	27	64	28	39	64	47	485
11 15	41	44	38	23	43	16	30	77	38	25	88	47	510
11 30	40	62	29	31	27	29	26	83	30	28	81	47	513
11 45	38	47	34	26	40	33	29	95	38	28	93	60	561
12 00	43	65	31	30	59	26	29	97	40	29	77	49	575
12 15	47	70	34	24	53	25	25	87	48	46	98	56	613
12 30	50	64	23	21	45	15	22	86	47	35	106	57	571
12 45	50	50	31	17	47	15	19	71	38	35	102	39	514
TOTAL	350	459	241	203	360	179	207	660	307	265	709	402	4342

Truck traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11 00	6	1	0	4	3	2	2	2	4	2	0	0	24
11 15	1	2	1	1	6	3	3	2	3	1	2	0	22
11 30	2	1	0	7	4	0	0	5	2	1	2	0	24
11 45	2	1	0	1	2	0	3	3	6	1	1	3	23
12 00	3	3	0	1	4	2	1	6	3	2	3	0	26
12 15	0	1	1	3	2	2	2	2	4	1	4	0	20
12 30	2	6	3	3	5	1	2	4	2	3	3	1	34
12 45	0	3	2	1	4	2	1	4	2	1	1	2	21
TOTAL	16	18	7	21	30	12	14	28	26	12	16	6	194

Bicycle traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
11 00	0	0	0	0	2	0	1	0	0	0	0	0	3
11 15	0	0	0	0	5	0	0	0	0	0	0	0	5
11 30	0	0	0	0	0	0	0	2	0	0	0	0	2
11 45	0	0	0	0	0	0	0	1	0	0	0	0	1
12 00	0	0	0	0	1	0	0	0	1	0	0	0	2
12 15	0	0	0	1	0	0	0	0	0	0	0	0	1
12 30	0	0	0	0	0	0	0	1	0	0	0	0	1
12 45	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	8	0	1	4	1	0	0	0	15

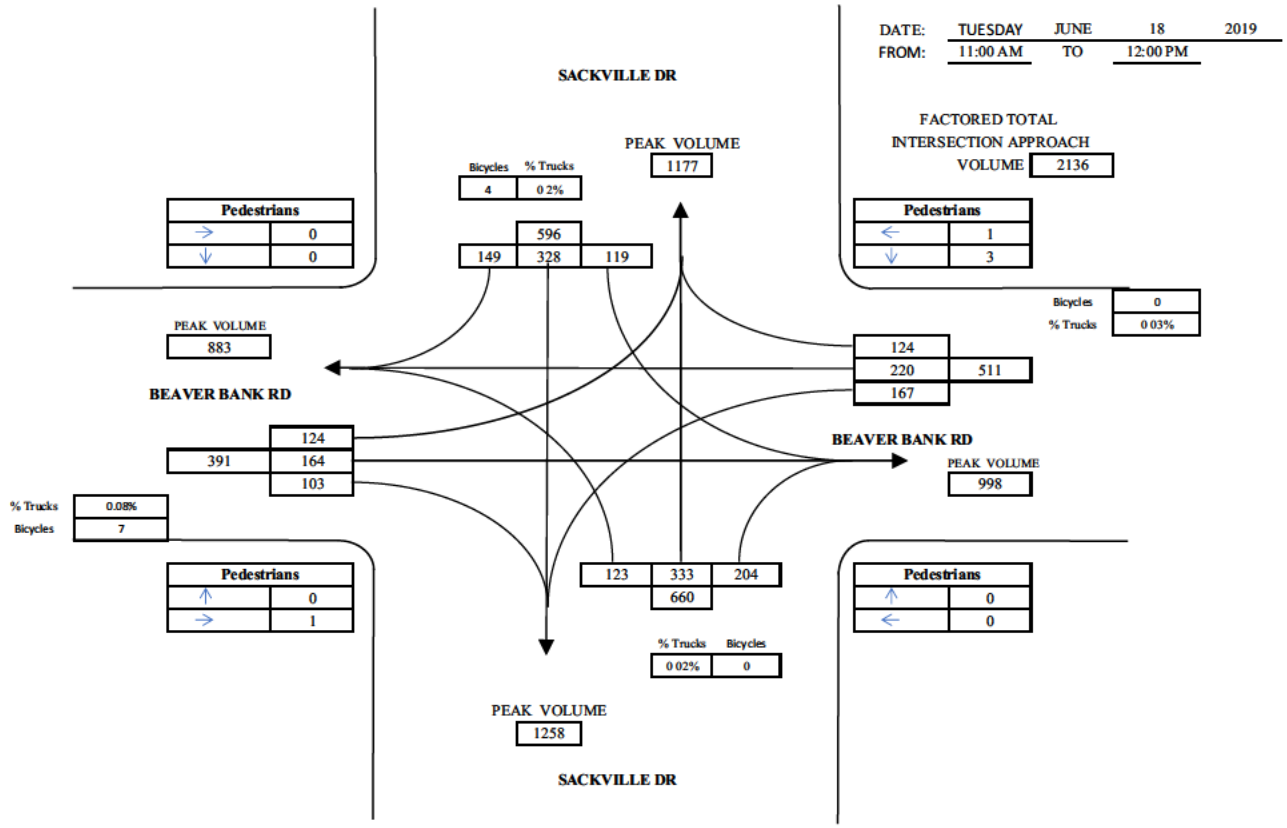
Pedestrian volumes

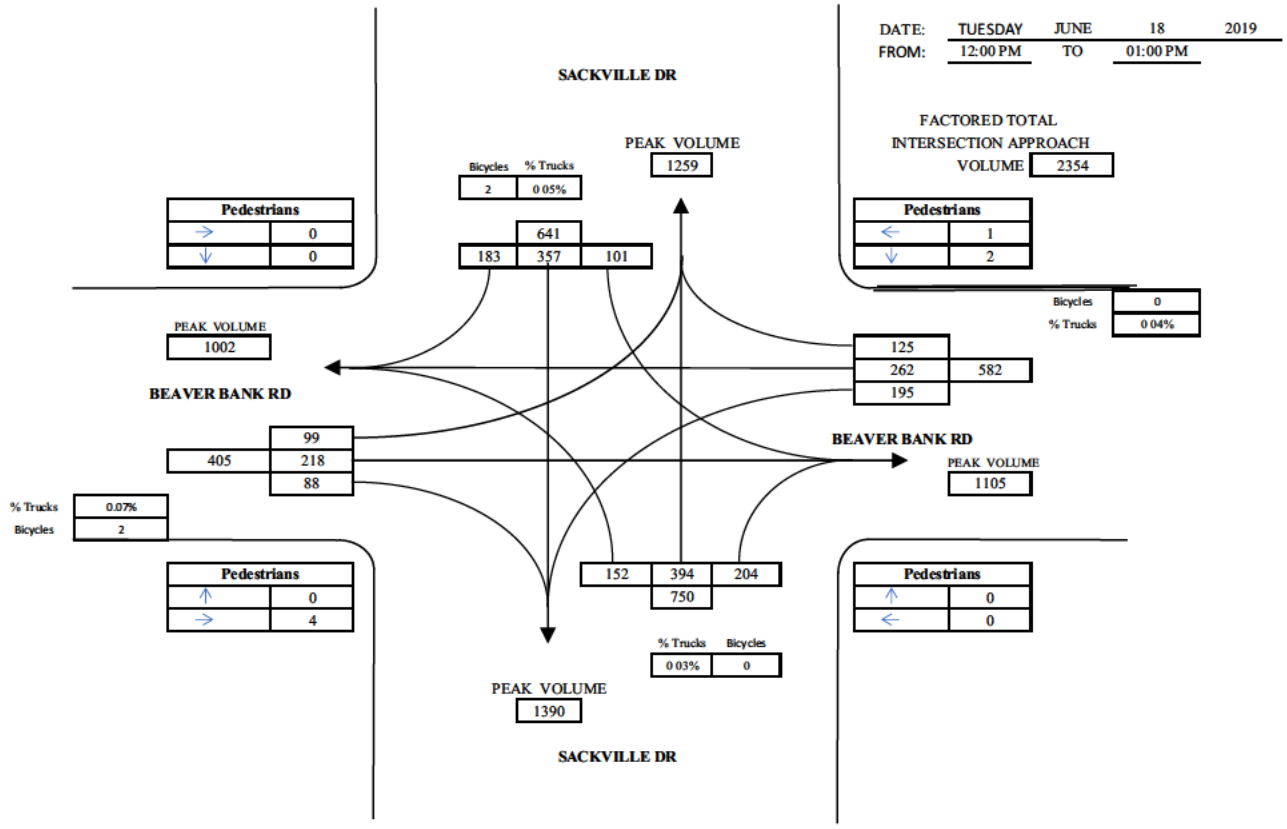
Interval starts	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
11 00	0	0	0	0	0	0	0	0	0	0	0	0	0
11 15	2	0	2	0	0	0	0	0	0	0	0	0	2
11 30	0	0	0	0	0	0	0	0	0	0	0	0	0
11 45	1	1	2	0	0	0	0	1	1	0	0	0	3
12 00	1	1	2	0	0	0	0	0	0	0	0	0	2
12 15	0	0	0	0	0	0	0	4	4	0	0	0	4
12 30	1	0	1	0	0	0	0	0	0	0	0	0	1
12 45	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	5	2	7	0	0	0	0	5	5	0	0	0	12

****NOTE: For Noon peak, there were 19 times the SE bound through traffic on Sackville Dr was blocking access to the right turn only lane to the Beaver Bank Connector.**

VEHICULAR GRAPHIC SUMMARY SHEET

SACKVILLE DR @ BEAVER BANK RD





HALIFAX REGIONAL MUNICIPALITY
TRANSPORTATION & PUBL C WORKS
TRAFFIC MANAGEMENT

CODE NO 19TM021

MANUAL TRAFFIC COUNTS

INTERSECTION: SACKVILLE DR @ BEAVER BANK RD

WEATHER: SUNNY
RECORDER: MICHAEL SMITH & JACOB C

DAY	DATE	MONTH	YEAR
TUESDAY	18	JUNE	2019

STREET		BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			
TIME		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
04 00 00 PM	04 15 00 PM	40	71	48	47	85	20	32	73	33	48	124	74	695
04 15 00 PM	04 30 00 PM	44	64	45	69	131	50	47	77	35	35	122	78	797
04 30 00 PM	04 45 00 PM	58	69	48	72	103	43	32	75	40	54	117	92	803
04 45 00 PM	05 00 00 PM	41	63	51	93	137	24	39	88	27	43	120	74	800

TOTAL	183	267	192	281	456	137	150	313	135	180	483	318	3095	
PEAK		642			874			598			981			
4(15 MIN PEAK)		700			1016			636			1052			
PEAK HOUR FACTOR		0 92			0 86			0 94			0 93			AAWT
TWO WAY TOTALS		1566			1456			1554			1614			FACTOR
														0 99
														3064

DAY	DATE	MONTH	YEAR
TUESDAY	18	JUNE	2019

TIME		FROM THE EAST			FROM THE WEST			FROM THE NORTH			FROM THE SOUTH			TOTAL
15 MIN INTERVALS		L	S	R	L	S	R	L	S	R	L	S	R	
05 00 00 PM	05 15 00 PM	47	82	26	81	125	44	22	111	36	40	124	74	812
05 15 00 PM	05 30 00 PM	47	78	42	89	116	32	27	121	46	40	122	74	834
05 30 00 PM	05 45 00 PM	43	91	34	93	144	39	35	100	31	37	122	54	823
05 45 00 PM	06 00 00 PM	34	77	37	73	114	42	51	103	43	37	121	73	805

TOTAL	171	328	139	336	499	157	135	435	156	154	489	275	3274	
PEAK		638			992			726			918			
4(15 MIN PEAK)		672			1104			788			952			
PEAK HOUR FACTOR		0 95			0 9			0 92			0 96			AAWT
TWO WAY TOTALS		1547			1630			1690			1681			FACTOR
														0 99
														3241

Intersection Peak Hour

		BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
		Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
17:00 18:00	Car	0	0	0	333	490	156	133	428	149	0	0	0	1689
	Truck	0	0	0	3	9	1	2	7	7	0	0	0	29
	Bicycle	0	0	0	0	0	0	0	2	1	0	0	0	3
	Vehicle Total	0	0	0	336	499	157	135	437	157	0	0	0	1721
	Approach Factor		0			0 9			0 92			0		FACTOR
														1
														1721

Peak Hour Pedestrians

		NE			NW			SW			SE			Total
		Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
17:00 18:00	Pedestrians	0	4	4	1	1	2	1	0	1	0	0	0	7

Car traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16 00	36	66	43	45	83	20	32	69	32	48	123	72	669
16 15	42	61	41	68	129	47	46	76	34	34	120	76	774
16 30	58	68	48	69	101	42	30	74	32	53	116	90	781
16 45	39	59	49	92	134	24	36	86	25	43	116	73	776
17 00	43	80	26	81	122	44	21	108	34	40	124	73	796
17 15	45	75	41	88	113	31	27	120	46	39	120	72	817
17 30	43	91	34	92	141	39	35	98	29	37	117	53	809
17 45	32	75	36	72	114	42	50	102	40	37	120	72	792
TOTAL	338	575	318	607	937	289	277	733	272	331	956	581	6214

Truck traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16 00	4	5	5	2	2	0	0	4	1	0	1	2	26
16 15	2	3	4	1	2	3	1	1	1	1	2	2	23
16 30	0	1	0	3	2	1	2	1	8	1	1	2	22
16 45	2	4	2	1	3	0	3	2	2	0	4	1	24
17 00	4	2	0	0	3	0	1	3	2	0	0	1	16
17 15	2	3	1	1	3	1	0	1	0	1	2	2	17
17 30	0	0	0	1	3	0	0	2	2	0	5	1	14
17 45	2	2	1	1	0	0	1	1	3	0	1	1	13
TOTAL	16	20	13	10	18	5	8	15	19	3	16	12	155

Bicycle traffic

Interval starts	BEAVER BANK RD			BEAVER BANK RD			SACKVILLE DR			SACKVILLE DR			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16 00	0	0	0	0	0	0	0	0	0	0	0	0	0
16 15	0	0	0	0	0	0	0	0	0	0	0	0	0
16 30	0	0	0	0	0	0	0	0	0	0	0	0	0
16 45	0	0	0	0	0	0	0	0	0	0	0	0	0
17 00	0	0	0	0	0	0	0	1	1	0	0	0	2
17 15	0	0	0	0	0	0	0	0	0	0	0	0	0
17 30	0	0	0	0	0	0	0	0	0	0	0	0	0
17 45	0	0	0	0	0	0	0	1	0	0	0	0	1
TOTAL	0	0	0	0	0	0	0	2	1	0	0	0	3

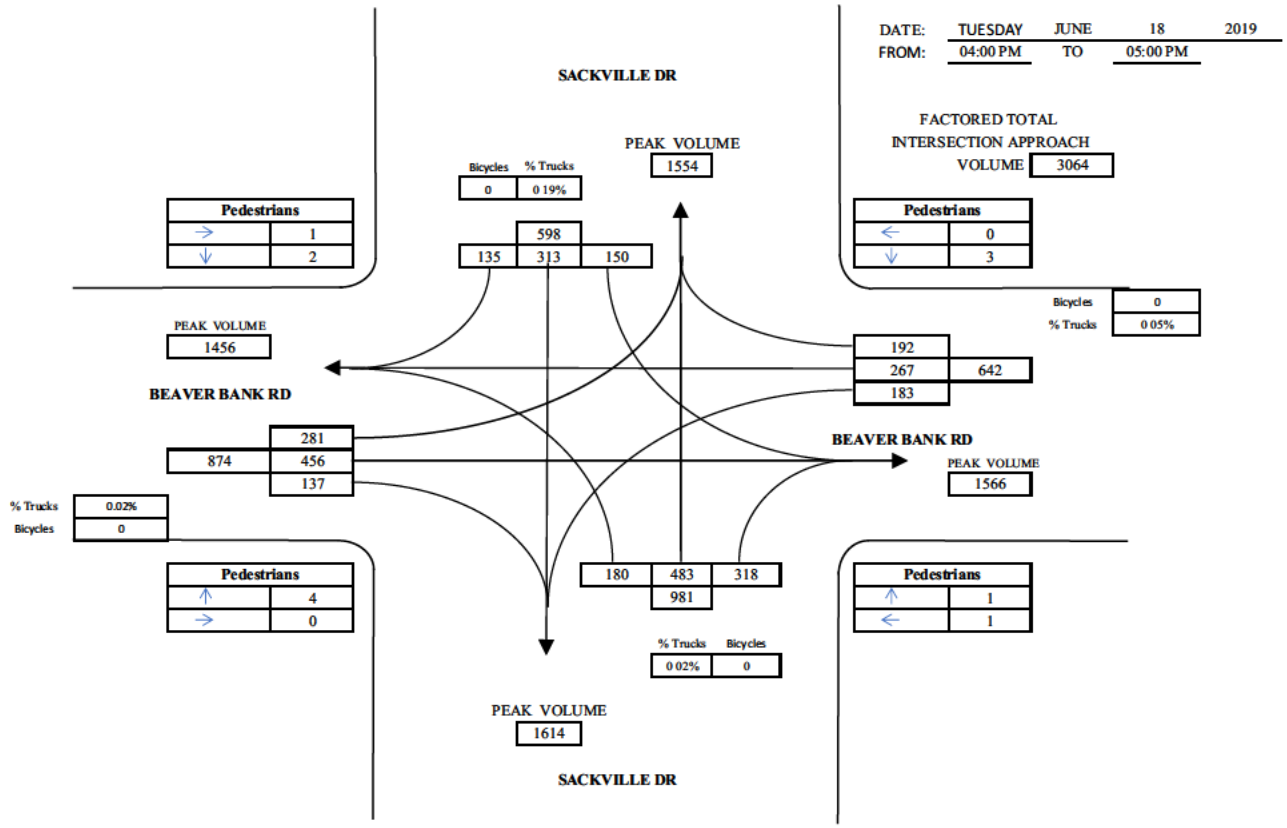
Pedestrian volumes

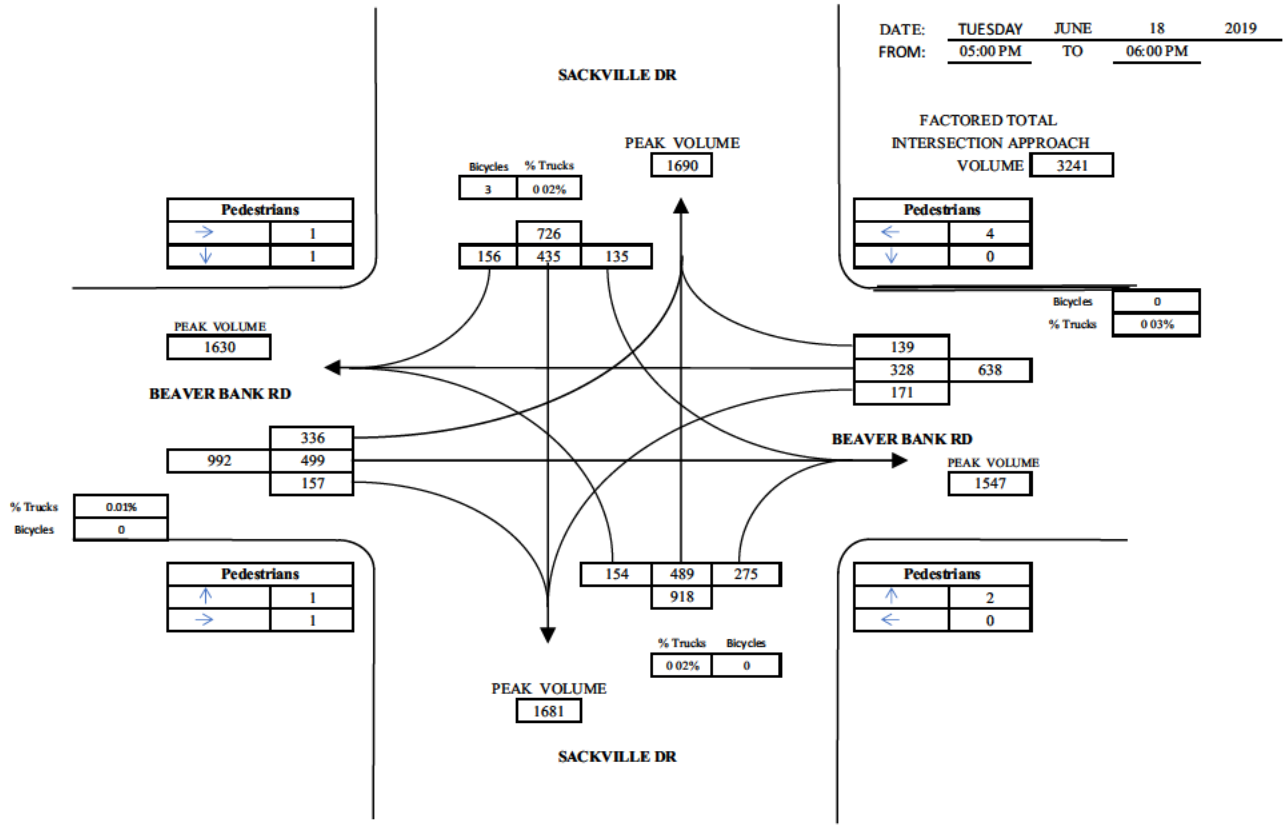
Interval starts	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
16 00	1	0	1	1	0	1	1	0	1	0	1	1	4
16 15	0	0	0	0	0	0	0	0	0	0	0	0	0
16 30	2	0	2	0	2	2	0	0	0	0	0	0	4
16 45	0	0	0	0	0	0	3	0	3	1	0	1	4
17 00	0	0	0	0	0	0	0	0	0	0	0	0	0
17 15	0	4	4	0	1	1	1	1	2	0	2	2	9
17 30	0	0	0	1	0	1	0	0	0	0	0	0	1
17 45	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	4	7	2	3	5	5	1	6	1	3	4	22

****NOTE: For PM peak, there were 5 times the SE bound through traffic on Sackville Dr was blocking access to the right turn only lane to the Beaver Bank Connector.**

VEHICULAR GRAPHIC SUMMARY SHEET

SACKVILLE DR @ BEAVER BANK RD





APPENDIX B

TRIP GENERATION

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: 893 Sackville Drive

Open Date: 2/13/2023
Analysis Date: 2/13/2023

ITE	Land Use		Weekday Average Daily Trips			Weekday AM Peak Hour of Adjacent Street Traffic			Weekday PM Peak Hour of Adjacent Street Traffic		
		*	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
221	Mid-Rise Multi-Family		136	135	271	4	13	17	14	9	23
	50 Dwelling Units										
Unadjusted Volume			136	135	271	4	13	17	14	9	23
Internal Capture Trips			0	0	0	0	0	0	0	0	0
Pass-By Trips			0	0	0	0	0	0	0	0	0
Volume Added to Adjacent Streets			136	135	271	4	13	17	14	9	23

Total Weekday Average Daily Trips Internal Capture = 0 Percent

Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

* Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

Trip Generation Summary

Alternative: Alternative 1
Phase:
Project: 893 Sackville Drive

Open Date: 1/28/2023
Analysis Date: 1/28/2023

ITE	Land Use		Weekday Average Daily Trips *	Enter	Exit	Total	Weekday AM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total	Weekday PM Peak Hour of Adjacent Street Traffic *	Enter	Exit	Total
812	Kent					0		45	26	71		44	49	93
	45	1000 Sq. Ft. GFA												
Unadjusted Volume				0	0	0		45	26	71		44	49	93
Internal Capture Trips				0	0	0		0	0	0		0	0	0
Pass-By Trips				0	0	0		0	0	0		0	0	0
Volume Added to Adjacent Streets				0	0	0		45	26	71		44	49	93

Total Weekday Average Daily Trips Internal Capture = 0 Percent
Total Weekday AM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent
Total Weekday PM Peak Hour of Adjacent Street Traffic Internal Capture = 0 Percent

* Custom rate used for selected time period.

Source: Institute of Transportation Engineers, Trip Generation Manual 10th Edition

APPENDIX C

TRIP ASSIGNMENT

Development: New Development

Driveway: 1 Driveway

Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Driveway to Sackville West	25.00	1	25.00	3
2	Driveway to Sackville East	30.00	1	30.00	4
3	Driveway to Beaverbank North	15.00	1	15.00	2
4	Driveway to Beaverbank South	30.00	1	30.00	4

Development: New Development

Driveway: 1 Driveway

Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Driveway to Sackville West	25.00	4	25.00	2
2	Driveway to Sackville East	30.00	4	30.00	3
3	Driveway to Beaverbank North	15.00	2	15.00	1
4	Driveway to Beaverbank South	30.00	4	30.00	3

APPENDIX D

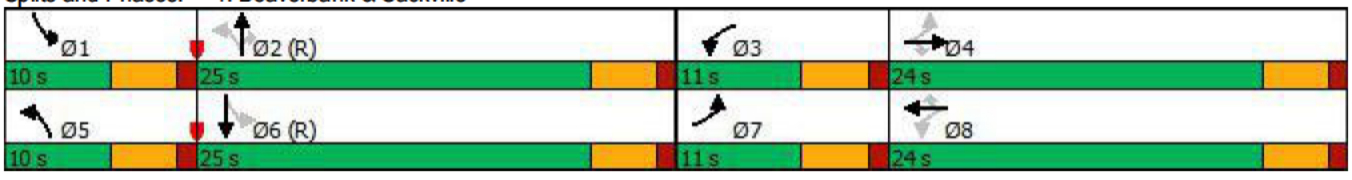
SYNCHRO REPORTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	210	370	230	150	250	110	130	200	140	180	520
Future Volume (vph)	210	370	230	150	250	110	130	200	140	180	520
Lane Group Flow (vph)	221	389	242	158	263	116	137	211	147	189	726
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	10.0	25.0	25.0	10.0	25.0
Total Split (%)	15.7%	34.3%	34.3%	15.7%	34.3%	34.3%	14.3%	35.7%	35.7%	14.3%	35.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
v/c Ratio	0.50	0.70	0.38	0.48	0.48	0.20	0.50	0.19	0.24	0.37	0.65
Control Delay	17.8	30.9	5.0	17.8	24.5	2.4	19.3	19.1	4.0	15.3	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	30.9	5.0	17.8	24.5	2.4	19.3	19.1	4.0	15.3	22.8
Queue Length 50th (m)	17.7	45.6	0.0	12.2	28.5	0.0	10.5	10.8	0.0	14.9	39.3
Queue Length 95th (m)	31.0	#74.8	14.5	22.8	48.5	5.3	20.2	18.3	9.5	26.8	56.4
Internal Link Dist (m)		66.9			137.5			123.6			146.2
Turn Bay Length (m)	90.0			75.0					50.0	80.0	
Base Capacity (vph)	438	552	643	326	552	592	272	1114	609	512	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.70	0.38	0.48	0.48	0.20	0.50	0.19	0.24	0.37	0.65

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Beaverbank & Sackville



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	800	10	0	550	0	10
Future Volume (Veh/h)	800	10	0	550	0	10
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	842	11	0	579	0	11
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				91		
pX, platoon unblocked						
vC, conflicting volume			842		1137	848
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			842		1137	848
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	96
cM capacity (veh/h)			802		198	309

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	853	290	290	11
Volume Left	0	0	0	0
Volume Right	11	0	0	11
cSH	1700	1700	1700	309
Volume to Capacity	0.50	0.17	0.17	0.04
Queue Length 95th (m)	0.0	0.0	0.0	0.8
Control Delay (s)	0.0	0.0	0.0	17.1
Lane LOS				C
Approach Delay (s)	0.0	0.0		17.1
Approach LOS				C

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	800	10	35	515	0	10	0	10	0	0	0
Future Volume (Veh/h)	0	800	10	35	515	0	10	0	10	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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
Hourly flow rate (vph)	0	842	11	37	542	0	11	0	11	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					155							
pX, platoon unblocked	0.88						0.88	0.88		0.88	0.88	0.88
vC, conflicting volume	542			853			1464	1464	848	1474	1469	542
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	414			853			1459	1459	848	1471	1465	414
tC, single (s)	4.1			4.1			*5.5	6.5	*5.5	*5.5	6.5	*5.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			*3.0	4.0	3.3	*3.0	4.0	3.3
p0 queue free %	100			95			94	100	97	100	100	100
cM capacity (veh/h)	1020			790			190	110	429	182	109	614

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	853	37	542	11	11	0
Volume Left	0	37	0	11	0	0
Volume Right	11	0	0	0	11	0
cSH	1020	790	1700	190	429	1700
Volume to Capacity	0.00	0.05	0.32	0.06	0.03	0.00
Queue Length 95th (m)	0.0	1.1	0.0	1.4	0.6	0.0
Control Delay (s)	0.0	9.8	0.0	25.1	13.6	0.0
Lane LOS		A		D	B	A
Approach Delay (s)	0.0	0.6		19.4		0.0
Approach LOS				C		A

Intersection Summary				
Average Delay	0.5			
Intersection Capacity Utilization	50.6%	ICU Level of Service		A
Analysis Period (min)	15			

* User Entered Value

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	780	15	20	505	15	30
Future Volume (Veh/h)	780	15	20	505	15	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	821	16	21	532	16	32
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				230		
pX, platoon unblocked					0.92	
vC, conflicting volume			837		1403	829
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			837		1395	829
tC, single (s)			4.1		*5.5	*5.5
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		92	93
cM capacity (veh/h)			806		201	439

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	837	21	532	48
Volume Left	0	21	0	16
Volume Right	16	0	0	32
cSH	1700	806	1700	314
Volume to Capacity	0.49	0.03	0.31	0.15
Queue Length 95th (m)	0.0	0.6	0.0	4.0
Control Delay (s)	0.0	9.6	0.0	18.5
Lane LOS		A		C
Approach Delay (s)	0.0	0.4		18.5
Approach LOS				C

Intersection Summary			
Average Delay	0.8		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

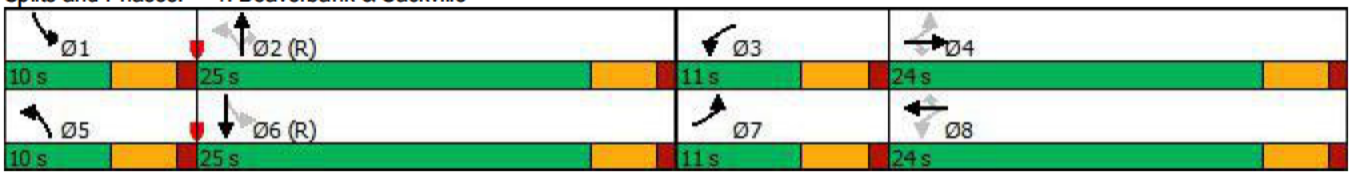
* User Entered Value

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	210	370	230	150	250	110	130	200	140	180	520
Future Volume (vph)	244	429	267	174	290	128	151	232	162	209	603
Lane Group Flow (vph)	257	452	281	183	305	135	159	244	171	220	842
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	10.0	25.0	25.0	10.0	25.0
Total Split (%)	15.7%	34.3%	34.3%	15.7%	34.3%	34.3%	14.3%	35.7%	35.7%	14.3%	35.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
v/c Ratio	0.64	0.82	0.42	0.64	0.55	0.23	0.61	0.22	0.28	0.44	0.75
Control Delay	22.4	38.1	5.7	24.6	26.1	3.5	24.2	19.4	4.8	16.6	25.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	38.1	5.7	24.6	26.1	3.5	24.2	19.4	4.8	16.6	25.7
Queue Length 50th (m)	21.0	55.0	1.2	14.4	33.8	0.0	12.3	12.5	0.0	17.6	48.2
Queue Length 95th (m)	36.0	#99.5	17.0	#29.3	56.3	8.0	#24.2	20.6	12.1	31.0	67.7
Internal Link Dist (m)		66.9			137.5			123.6			146.2
Turn Bay Length (m)	90.0			75.0					50.0	80.0	
Base Capacity (vph)	401	552	662	287	552	592	261	1114	614	501	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.82	0.42	0.64	0.55	0.23	0.61	0.22	0.28	0.44	0.75

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Beaverbank & Sackville



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	800	10	0	550	0	10
Future Volume (Veh/h)	928	12	0	638	0	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	977	13	0	672	0	13
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				91		
pX, platoon unblocked						
vC, conflicting volume			977		1320	984
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			977		1320	984
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	95
cM capacity (veh/h)			714		151	251

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	990	336	336	13
Volume Left	0	0	0	0
Volume Right	13	0	0	13
cSH	1700	1700	1700	251
Volume to Capacity	0.58	0.20	0.20	0.05
Queue Length 95th (m)	0.0	0.0	0.0	1.2
Control Delay (s)	0.0	0.0	0.0	20.1
Lane LOS				C
Approach Delay (s)	0.0	0.0		20.1
Approach LOS				C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	800	10	35	515	0	10	0	10	0	0	0
Future Volume (Veh/h)	0	928	12	41	598	0	12	0	12	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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
Hourly flow rate (vph)	0	977	13	43	629	0	13	0	13	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					155							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	629			990			1698	1698	984	1712	1705	629
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	465			990			1736	1736	984	1751	1744	465
tC, single (s)	4.1			4.1			*5.5	6.5	*5.5	*5.5	6.5	*5.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			*3.0	4.0	3.3	*3.0	4.0	3.3
p0 queue free %	100			94			90	100	96	100	100	100
cM capacity (veh/h)	932			702			128	70	368	122	69	554

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	990	43	629	13	13	0
Volume Left	0	43	0	13	0	0
Volume Right	13	0	0	0	13	0
cSH	932	702	1700	128	368	1700
Volume to Capacity	0.00	0.06	0.37	0.10	0.04	0.00
Queue Length 95th (m)	0.0	1.5	0.0	2.5	0.8	0.0
Control Delay (s)	0.0	10.5	0.0	36.2	15.1	0.0
Lane LOS		B		E	C	A
Approach Delay (s)	0.0	0.7		25.7		0.0
Approach LOS				D		A

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	50.6%	ICU Level of Service		A
Analysis Period (min)	15			

* User Entered Value

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	780	15	20	505	15	30
Future Volume (Veh/h)	905	17	23	586	17	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	953	18	24	617	18	37
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				230		
pX, platoon unblocked					0.89	
vC, conflicting volume			971		1627	962
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			971		1642	962
tC, single (s)			4.1		*5.5	*5.5
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		88	90
cM capacity (veh/h)			718		145	378

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	971	24	617	55
Volume Left	0	24	0	18
Volume Right	18	0	0	37
cSH	1700	718	1700	248
Volume to Capacity	0.57	0.03	0.36	0.22
Queue Length 95th (m)	0.0	0.8	0.0	6.3
Control Delay (s)	0.0	10.2	0.0	23.6
Lane LOS		B		C
Approach Delay (s)	0.0	0.4		23.6
Approach LOS				C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

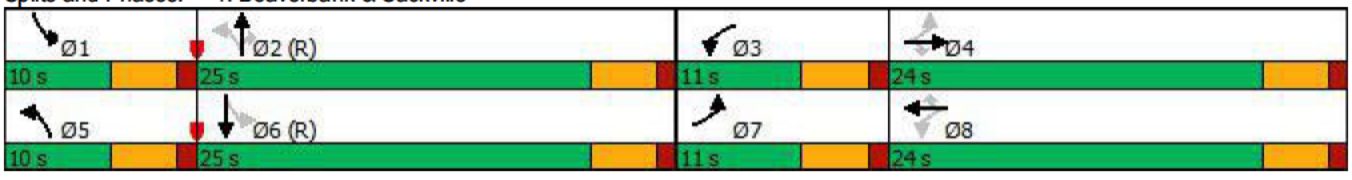
* User Entered Value

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	210	370	230	150	250	110	130	200	140	180	520
Future Volume (vph)	246	434	272	174	291	128	152	232	162	209	603
Lane Group Flow (vph)	259	457	286	183	306	135	160	244	171	220	843
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	24.0	24.0	11.0	24.0	24.0	10.0	25.0	25.0	10.0	25.0
Total Split (%)	15.7%	34.3%	34.3%	15.7%	34.3%	34.3%	14.3%	35.7%	35.7%	14.3%	35.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
v/c Ratio	0.65	0.83	0.43	0.64	0.55	0.23	0.61	0.22	0.28	0.44	0.75
Control Delay	22.8	38.8	5.9	24.6	26.1	3.5	24.4	19.4	4.8	16.6	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.8	38.8	5.9	24.6	26.1	3.5	24.4	19.4	4.8	16.6	25.8
Queue Length 50th (m)	21.2	55.8	1.7	14.4	34.0	0.0	12.4	12.5	0.0	17.6	48.3
Queue Length 95th (m)	#36.8	#100.9	17.7	#29.3	56.4	8.0	#24.5	20.6	12.1	31.0	67.7
Internal Link Dist (m)		66.9			137.5			123.6			146.2
Turn Bay Length (m)	90.0			75.0					50.0	80.0	
Base Capacity (vph)	400	552	662	287	552	592	261	1114	614	501	1117
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.65	0.83	0.43	0.64	0.55	0.23	0.61	0.22	0.28	0.44	0.75

Intersection Summary

Cycle Length: 70
Actuated Cycle Length: 70
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 65
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Beaverbank & Sackville



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	800	10	0	550	0	10
Future Volume (Veh/h)	940	12	0	642	0	12
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	989	13	0	676	0	13
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				91		
pX, platoon unblocked						
vC, conflicting volume			989		1334	996
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			989		1334	996
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	95
cM capacity (veh/h)			707		148	247

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	1002	338	338	13
Volume Left	0	0	0	0
Volume Right	13	0	0	13
cSH	1700	1700	1700	247
Volume to Capacity	0.59	0.20	0.20	0.05
Queue Length 95th (m)	0.0	0.0	0.0	1.3
Control Delay (s)	0.0	0.0	0.0	20.4
Lane LOS				C
Approach Delay (s)	0.0	0.0		20.4
Approach LOS				C

Intersection Summary			
Average Delay	0.2		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	800	10	35	515	0	10	0	10	0	0	0
Future Volume (Veh/h)	1	928	12	41	598	3	12	0	12	12	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			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
Hourly flow rate (vph)	1	977	13	43	629	3	13	0	13	13	0	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					155							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	632			990			1704	1704	984	1715	1708	630
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	467			990			1742	1742	984	1756	1748	465
tC, single (s)	4.1			4.1			*5.5	6.5	*5.5	*5.5	6.5	*5.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			*3.0	4.0	3.3	*3.0	4.0	3.3
p0 queue free %	100			94			90	100	96	89	100	99
cM capacity (veh/h)	929			702			126	69	368	121	68	553

Direction, Lane #	EB 1	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	991	43	632	13	13	16
Volume Left	1	43	0	13	0	13
Volume Right	13	0	3	0	13	3
cSH	929	702	1700	126	368	141
Volume to Capacity	0.00	0.06	0.37	0.10	0.04	0.11
Queue Length 95th (m)	0.0	1.5	0.0	2.6	0.8	2.8
Control Delay (s)	0.0	10.5	0.0	36.7	15.1	33.7
Lane LOS	A	B		E	C	D
Approach Delay (s)	0.0	0.7		25.9		33.7
Approach LOS				D		D

Intersection Summary			
Average Delay	1.0		
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	780	15	20	505	15	30
Future Volume (Veh/h)	906	17	23	590	17	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	954	18	24	621	18	37
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				230		
pX, platoon unblocked					0.90	
vC, conflicting volume			972		1632	963
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			972		1647	963
tC, single (s)			4.1		*5.5	*5.5
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			97		88	90
cM capacity (veh/h)			717		144	377

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	972	24	621	55
Volume Left	0	24	0	18
Volume Right	18	0	0	37
cSH	1700	717	1700	247
Volume to Capacity	0.57	0.03	0.37	0.22
Queue Length 95th (m)	0.0	0.8	0.0	6.3
Control Delay (s)	0.0	10.2	0.0	23.7
Lane LOS		B		C
Approach Delay (s)	0.0	0.4		23.7
Approach LOS				C

Intersection Summary			
Average Delay	0.9		
Intersection Capacity Utilization	49.9%	ICU Level of Service	A
Analysis Period (min)	15		

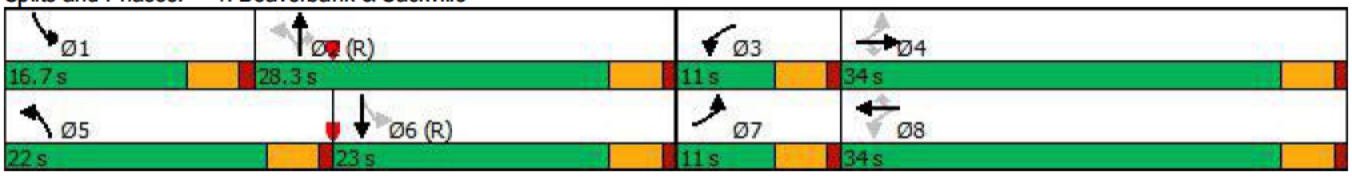
* User Entered Value

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	140	440	160	155	480	275	330	500	160	175	330
Future Volume (vph)	140	440	160	155	480	275	330	500	160	175	330
Lane Group Flow (vph)	147	463	168	163	505	289	347	526	168	184	484
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	34.0	34.0	11.0	34.0	34.0	22.0	28.3	28.3	16.7	23.0
Total Split (%)	12.2%	37.8%	37.8%	12.2%	37.8%	37.8%	24.4%	31.4%	31.4%	18.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
v/c Ratio	0.59	0.71	0.25	0.59	0.78	0.38	0.72	0.52	0.30	0.43	0.61
Control Delay	25.8	33.8	3.9	24.9	37.2	4.5	26.5	30.5	5.9	19.3	32.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	25.8	33.8	3.9	24.9	37.2	4.5	26.5	30.5	5.9	19.3	32.2
Queue Length 50th (m)	14.6	69.6	0.0	16.4	78.0	0.0	39.1	40.8	0.0	18.8	35.3
Queue Length 95th (m)	26.0	103.3	11.1	28.5	#119.2	16.2	#63.1	56.3	14.2	31.8	51.1
Internal Link Dist (m)		66.9			137.5			123.6			146.2
Turn Bay Length (m)	90.0			75.0					50.0	80.0	
Base Capacity (vph)	248	649	674	278	649	752	483	1005	569	423	795
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.59	0.71	0.25	0.59	0.78	0.38	0.72	0.52	0.30	0.43	0.61

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 75
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

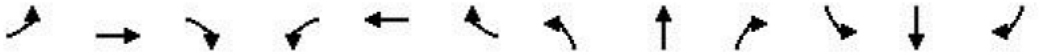
Splits and Phases: 1: Beaverbank & Sackville



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	710	10	0	940	0	30
Future Volume (Veh/h)	710	10	0	940	0	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	747	11	0	989	0	32
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				91		
pX, platoon unblocked						
vC, conflicting volume			747		1247	752
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			747		1247	752
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	91
cM capacity (veh/h)			870		168	357

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	758	494	494	32
Volume Left	0	0	0	0
Volume Right	11	0	0	32
cSH	1700	1700	1700	357
Volume to Capacity	0.45	0.29	0.29	0.09
Queue Length 95th (m)	0.0	0.0	0.0	2.2
Control Delay (s)	0.0	0.0	0.0	16.1
Lane LOS				C
Approach Delay (s)	0.0	0.0		16.1
Approach LOS				C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	709	10	50	890	0	10	0	10	1	0	1
Future Volume (Veh/h)	0	709	10	50	890	0	10	0	10	1	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	709	10	50	890	0	10	0	10	1	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					155							
pX, platoon unblocked	0.61						0.61	0.61		0.61	0.61	0.61
vC, conflicting volume	890			719			1705	1704	714	1709	1709	890
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	501			719			1836	1834	714	1842	1842	501
tC, single (s)	4.1			4.1			*5.5	6.5	*5.5	*5.5	6.5	*5.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			*3.0	4.0	3.3	*3.0	4.0	3.3
p0 queue free %	100			94			88	100	98	99	100	100
cM capacity (veh/h)	656			887			83	44	498	81	44	386

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	0	719	50	890	10	10	2
Volume Left	0	0	50	0	10	0	1
Volume Right	0	10	0	0	0	10	1
cSH	1700	1700	887	1700	83	498	133
Volume to Capacity	0.00	0.42	0.06	0.52	0.12	0.02	0.01
Queue Length 95th (m)	0.0	0.0	1.4	0.0	3.0	0.5	0.3
Control Delay (s)	0.0	0.0	9.3	0.0	54.5	12.4	32.4
Lane LOS			A		F	B	D
Approach Delay (s)	0.0		0.5		33.4		32.4
Approach LOS					D		D

Intersection Summary				
Average Delay	0.7			
Intersection Capacity Utilization	54.5%	ICU Level of Service		A
Analysis Period (min)	15			

* User Entered Value

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	689	40	50	851	20	30
Future Volume (Veh/h)	689	40	50	851	20	30
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	725	42	53	896	21	32
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				230		
pX, platoon unblocked					0.64	
vC, conflicting volume			767		1748	746
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			767		1888	746
tC, single (s)			4.1		*5.5	*5.5
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			94		72	93
cM capacity (veh/h)			856		75	482

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	767	53	896	53
Volume Left	0	53	0	21
Volume Right	42	0	0	32
cSH	1700	856	1700	154
Volume to Capacity	0.45	0.06	0.53	0.35
Queue Length 95th (m)	0.0	1.5	0.0	10.8
Control Delay (s)	0.0	9.5	0.0	40.3
Lane LOS		A		E
Approach Delay (s)	0.0	0.5		40.3
Approach LOS				E

Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

1: Beaverbank & Sackville Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.0	0.8	0.5	0.4	0.2	2.6	3.3	0.8	3.4
Total Del/Veh (s)	39.5	29.9	9.1	33.2	34.4	7.0	26.8	26.0	3.4	23.8	30.5	3.4

1: Beaverbank & Sackville Performance by movement

Movement	All
Denied Del/Veh (s)	0.9
Total Del/Veh (s)	24.7

2: E.Kent.DW & Sackville Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	4.5	1.6	3.1	1.5	3.7

3: W.Kent.DW/Driveway & Sackville Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	3.2	1.9	12.5	0.4	56.5	1.8	2.2

4: Connolly & Sackville Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.8	0.6	0.0	0.0	0.1	0.1	0.4
Total Del/Veh (s)	1.9	1.4	7.5	0.5	25.1	5.7	1.8

Total Network Performance

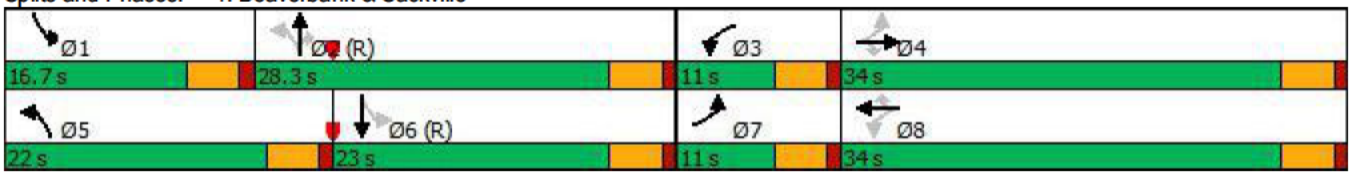
Denied Del/Veh (s)	1.0
Total Del/Veh (s)	28.1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	140	440	160	155	480	275	330	500	160	175	330
Future Volume (vph)	162	511	186	180	557	319	383	580	186	203	383
Lane Group Flow (vph)	171	538	196	189	586	336	403	611	196	214	562
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	34.0	34.0	11.0	34.0	34.0	22.0	28.3	28.3	16.7	23.0
Total Split (%)	12.2%	37.8%	37.8%	12.2%	37.8%	37.8%	24.4%	31.4%	31.4%	18.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
v/c Ratio	0.76	0.83	0.29	0.84	0.90	0.43	0.89	0.61	0.33	0.55	0.71
Control Delay	39.1	40.7	4.6	50.2	48.5	4.5	44.5	32.1	5.8	22.1	35.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	39.1	40.7	4.6	50.2	48.5	4.5	44.5	32.1	5.8	22.1	35.3
Queue Length 50th (m)	17.3	85.0	0.0	19.3	95.7	0.0	50.7	48.7	0.0	22.2	42.8
Queue Length 95th (m)	#42.6	#136.6	13.8	#51.7	#155.9	17.3	#101.7	65.8	15.3	36.6	60.4
Internal Link Dist (m)		66.9			137.5			123.6			146.2
Turn Bay Length (m)	90.0			75.0					50.0	80.0	
Base Capacity (vph)	226	649	684	224	649	783	454	1005	589	387	795
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.83	0.29	0.84	0.90	0.43	0.89	0.61	0.33	0.55	0.71

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Beaverbank & Sackville



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	710	10	0	940	0	30
Future Volume (Veh/h)	824	12	0	1091	0	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	867	13	0	1148	0	37
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				91		
pX, platoon unblocked						
vC, conflicting volume			867		1448	874
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			867		1448	874
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	88
cM capacity (veh/h)			785		124	297

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	880	574	574	37
Volume Left	0	0	0	0
Volume Right	13	0	0	37
cSH	1700	1700	1700	297
Volume to Capacity	0.52	0.34	0.34	0.12
Queue Length 95th (m)	0.0	0.0	0.0	3.2
Control Delay (s)	0.0	0.0	0.0	18.8
Lane LOS				C
Approach Delay (s)	0.0	0.0		18.8
Approach LOS				C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	709	10	50	890	0	10	0	10	1	0	1
Future Volume (Veh/h)	0	823	12	58	1033	0	12	0	12	1	0	1
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	0	823	12	58	1033	0	12	0	12	1	0	1
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					155							
pX, platoon unblocked	0.52						0.52	0.52		0.52	0.52	0.52
vC, conflicting volume	1033			835			1979	1978	829	1984	1984	1033
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	599			835			2424	2422	829	2434	2434	599
tC, single (s)	4.1			4.1			*5.5	6.5	*5.5	*5.5	6.5	*5.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			*3.0	4.0	3.3	*3.0	4.0	3.3
p0 queue free %	100			93			64	100	97	97	100	100
cM capacity (veh/h)	512			803			34	16	438	32	15	294

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	0	835	58	1033	12	12	2
Volume Left	0	0	58	0	12	0	1
Volume Right	0	12	0	0	0	12	1
cSH	1700	1700	803	1700	34	438	58
Volume to Capacity	0.00	0.49	0.07	0.61	0.36	0.03	0.03
Queue Length 95th (m)	0.0	0.0	1.8	0.0	8.9	0.6	0.8
Control Delay (s)	0.0	0.0	9.8	0.0	162.9	13.4	68.9
Lane LOS			A		F	B	F
Approach Delay (s)	0.0		0.5		88.2		68.9
Approach LOS					F		F

Intersection Summary				
Average Delay	1.4			
Intersection Capacity Utilization	54.5%	ICU Level of Service		A
Analysis Period (min)	15			

* User Entered Value

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	689	40	50	851	20	30
Future Volume (Veh/h)	800	46	58	988	23	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	842	48	61	1040	24	37
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				230		
pX, platoon unblocked					0.55	
vC, conflicting volume			890		2028	866
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			890		2467	866
tC, single (s)			4.1		*5.5	*5.5
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		24	91
cM capacity (veh/h)			770		32	421

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	890	61	1040	61
Volume Left	0	61	0	24
Volume Right	48	0	0	37
cSH	1700	770	1700	72
Volume to Capacity	0.52	0.08	0.61	0.85
Queue Length 95th (m)	0.0	2.0	0.0	31.6
Control Delay (s)	0.0	10.1	0.0	163.8
Lane LOS		B		F
Approach Delay (s)	0.0	0.6		163.8
Approach LOS				F

Intersection Summary			
Average Delay	5.2		
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

1: Beaverbank & Sackville Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.9	2.4	1.8	0.4	0.2	2.7	3.5	1.1	3.0
Total Del/Veh (s)	56.3	30.8	13.0	57.4	58.0	10.1	30.0	26.9	3.4	38.2	39.1	4.0

1: Beaverbank & Sackville Performance by movement

Movement	All
Denied Del/Veh (s)	1.3
Total Del/Veh (s)	33.1

2: E.Kent.DW & Sackville Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	4.5	1.2	3.9	1.6	4.1

3: W.Kent.DW/Driveway & Sackville Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total Del/Veh (s)	2.6	0.2	9.5	0.6	41.6	28.3	2.1

4: Connolly & Sackville Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.7	0.6	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	1.4	1.1	6.5	0.5	26.1	6.4	1.4

Total Network Performance

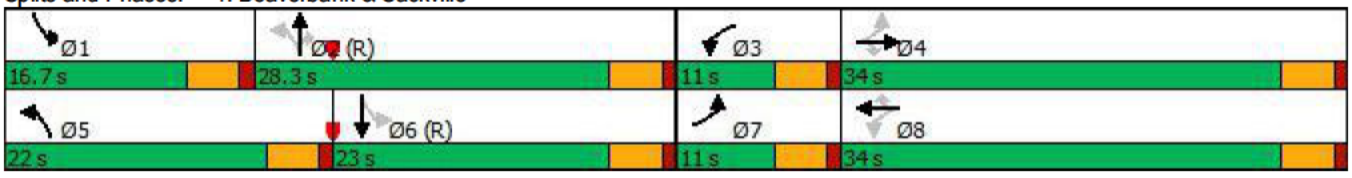
Denied Del/Veh (s)	1.5
Total Del/Veh (s)	36.3

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations											
Traffic Volume (vph)	140	440	160	155	480	275	330	500	160	175	330
Future Volume (vph)	164	514	189	180	562	319	388	580	186	203	383
Lane Group Flow (vph)	173	541	199	189	592	336	408	611	196	214	564
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA
Protected Phases	7	4		3	8		5	2		1	6
Permitted Phases	4		4	8		8	2		2	6	
Minimum Split (s)	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5	22.5	9.5	22.5
Total Split (s)	11.0	34.0	34.0	11.0	34.0	34.0	22.0	28.3	28.3	16.7	23.0
Total Split (%)	12.2%	37.8%	37.8%	12.2%	37.8%	37.8%	24.4%	31.4%	31.4%	18.6%	25.6%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
v/c Ratio	0.77	0.83	0.29	0.84	0.91	0.43	0.90	0.61	0.33	0.55	0.71
Control Delay	40.0	41.1	4.6	50.2	49.8	4.5	46.2	32.1	5.8	22.1	35.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	40.0	41.1	4.6	50.2	49.8	4.5	46.2	32.1	5.8	22.1	35.2
Queue Length 50th (m)	17.5	85.6	0.0	19.3	97.2	0.0	51.8	48.7	0.0	22.2	42.9
Queue Length 95th (m)	#43.7	#138.1	13.8	#51.7	#158.4	17.3	#103.6	65.8	15.3	36.6	60.4
Internal Link Dist (m)		66.9			137.5			123.6			146.2
Turn Bay Length (m)	90.0			75.0					50.0	80.0	
Base Capacity (vph)	226	649	686	224	649	783	454	1005	589	387	796
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.83	0.29	0.84	0.91	0.43	0.90	0.61	0.33	0.55	0.71

Intersection Summary

Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 90
Control Type: Pretimed
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Beaverbank & Sackville



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	710	10	0	940	0	30
Future Volume (Veh/h)	832	12	0	1103	0	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	876	13	0	1161	0	37
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				91		
pX, platoon unblocked						
vC, conflicting volume			876		1463	882
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			876		1463	882
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	87
cM capacity (veh/h)			779		122	293

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	889	580	580	37
Volume Left	0	0	0	0
Volume Right	13	0	0	37
cSH	1700	1700	1700	293
Volume to Capacity	0.52	0.34	0.34	0.13
Queue Length 95th (m)	0.0	0.0	0.0	3.3
Control Delay (s)	0.0	0.0	0.0	19.0
Lane LOS				C
Approach Delay (s)	0.0	0.0		19.0
Approach LOS				C

Intersection Summary			
Average Delay	0.3		
Intersection Capacity Utilization	46.1%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	709	10	50	890	0	10	0	10	1	0	1
Future Volume (Veh/h)	5	823	12	58	1033	12	12	0	12	9	0	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Hourly flow rate (vph)	5	823	12	58	1033	12	12	0	12	9	0	3
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)					155							
pX, platoon unblocked	0.51						0.51	0.51		0.51	0.51	0.51
vC, conflicting volume	1045			835			1991	2000	829	2000	2000	1039
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	609			835			2462	2480	829	2480	2480	597
tC, single (s)	4.1			4.1			*5.5	6.5	*5.5	*5.5	6.5	*5.5
tC, 2 stage (s)												
tF (s)	2.2			2.2			*3.0	4.0	3.3	*3.0	4.0	3.3
p0 queue free %	99			93			61	100	97	70	100	99
cM capacity (veh/h)	500			803			31	14	438	30	14	290

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	NB 2	SB 1
Volume Total	5	835	58	1045	12	12	12
Volume Left	5	0	58	0	12	0	9
Volume Right	0	12	0	12	0	12	3
cSH	500	1700	803	1700	31	438	39
Volume to Capacity	0.01	0.49	0.07	0.61	0.39	0.03	0.31
Queue Length 95th (m)	0.2	0.0	1.8	0.0	9.4	0.6	7.9
Control Delay (s)	12.3	0.0	9.8	0.0	180.5	13.4	136.0
Lane LOS	B		A		F	B	F
Approach Delay (s)	0.1		0.5		97.0		136.0
Approach LOS					F		F

Intersection Summary				
Average Delay	2.3			
Intersection Capacity Utilization	54.5%	ICU Level of Service		A
Analysis Period (min)	15			

* User Entered Value

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (veh/h)	689	40	50	851	20	30
Future Volume (Veh/h)	804	46	58	990	23	35
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	846	48	61	1042	24	37
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)				230		
pX, platoon unblocked					0.54	
vC, conflicting volume			894		2034	870
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			894		2481	870
tC, single (s)			4.1		*5.5	*5.5
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			92		22	91
cM capacity (veh/h)			767		31	419

Direction, Lane #	EB 1	WB 1	WB 2	NB 1
Volume Total	894	61	1042	61
Volume Left	0	61	0	24
Volume Right	48	0	0	37
cSH	1700	767	1700	70
Volume to Capacity	0.53	0.08	0.61	0.87
Queue Length 95th (m)	0.0	2.0	0.0	32.2
Control Delay (s)	0.0	10.1	0.0	170.5
Lane LOS		B		F
Approach Delay (s)	0.0	0.6		170.5
Approach LOS				F

Intersection Summary			
Average Delay	5.4		
Intersection Capacity Utilization	52.5%	ICU Level of Service	A
Analysis Period (min)	15		

* User Entered Value

1: Beaverbank & Sackville Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	9.9	9.2	7.6	0.4	0.2	2.4	3.0	1.3	3.0
Total Del/Veh (s)	81.7	30.5	11.5	51.7	55.2	11.9	33.8	28.0	3.3	29.9	38.0	4.2

1: Beaverbank & Sackville Performance by movement

Movement	All
Denied Del/Veh (s)	2.9
Total Del/Veh (s)	33.3

2: E.Kent.DW & Sackville Performance by movement

Movement	EBT	EBR	WBT	NBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	4.8	1.9	3.6	1.4	4.1

3: W.Kent.DW/Driveway & Sackville Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1		0.0
Total Del/Veh (s)	1.6	0.4	7.6	0.7	0.1	19.2	6.7	40.3		1.6

4: Connolly & Sackville Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Del/Veh (s)	0.6	0.5	0.0	0.0	0.1	0.1	0.3
Total Del/Veh (s)	0.9	0.4	8.0	0.6	23.1	10.8	1.4

Total Network Performance

Denied Del/Veh (s)	3.0
Total Del/Veh (s)	36.4