2025

TRANSPORTATION IMPACT STUDY
LAKE LOON DEVELOPMENT

MAIN STREET - DARTMOUTH, NS

Report by

Fathom

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Prepared for
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1.0 INTRODUCTION

1.1 Project Overview

Fathom Studio in coordination with DesignPoint Engineering & Surveying has been engaged by Metro Premier Properties to prepare a Transportation Impact Study for the proposed Lake Loon Development, located in Dartmouth, Nova Scotia. The development has frontage on Highway 107 (Forest Hills Extension) along its northeast side, and along Golf View Drive and Main Street along its south side. The property is about 24 acres in size with primary access provided at the Main Street / Ridgecrest Drive intersection, and from the low volume Golf View Drive. The preliminary concept plan for the development is shown in Figure 1 below.

Figure 1 – Concept Plan

2.0 2024 EXISTING CONDITIONS

2.1 Study Area

The study area was reviewed and confirmed with HRM prior to the preparation of this report and generally includes:

- The signalized intersection at Main Street at Ridgecrest Drive, located immediately south of the development and serves as the primary access point for the development, and
- The signalized intersection at Main Street at Forest Hills Parkway (south of Main) / Forest Hills Extension (north of Main).

For analysis purposes, the study area encompasses the impacted functional areas upstream and downstream of each of these intersections, roads and intersections between these two intersections, and associated operational infrastructure associated with the intersections.

This general location of the site is shown in Figure 2.

Figure 2 – Proposed Development location on Main Street and Forest Hills Extension

2.2 Existing Road Infrastructure

Figure 3 – Ridgecrest Drive looking North

Ridgecrest Drive

Ridgecrest Drive is a short, two-lane minor collector roadway about 250 meters long and 9 meters in width, oriented in a north-south direction. The north end of the roadway is signalized at Main Street and expands to 11 meters in width to accommodate dedicated northbound left and right turn movements to Main Street, and a single south bound lane toward the south stop-controlled terminus at Mt. Edward Road. There is a concrete sidewalk on the east side and separated from the roadway by a grassed boulevard. Ridgecrest is identified as a "Traffic Calmed Neighbourhood" street through signage, and the presence of multiple speed humps along its length. Parking is permitted along the west side of the roadway.

Figure 4 – Main Street looking West

Main Street

Main Street (Highway 7) extends from Highway 111 (Circumferential Highway) at its west end, about 20 kilometres east toward Musquodoboit Harourbour (as Highway 7 and 107). West of the development, Main is a four-lane arterial roadway that expands to 5-lanes to accommodate the westbound dedicated left turn at Ridgecrest. East of Ridgecrest, a consistent 5-lane cross section is maintained with a center two way left turn lane extending between Ridgecrest and Forest Hills.

The roadway has a posted speed limit of 60 km/h east of the development, which increases to 70 km/h approximately 150 metres west of Ridgecrest. There are painted bike lanes on both sides of the road west of Ridgecrest Drive. East of Ridgecrest, there is a painted bike lane in the eastbound direction only.

Figure 5 – Intersection of Main Street at Ridgecrest Drive

Main Street at Ridgecrest Drive

The intersection at Main Street and Ridgecrest Drive is a three-leg signalized intersection, with three uncontrolled, low volume driveways / parking areas on the north side of Main Street. The westbound approach has a dedicated left turn lane to Ridgecrest Drive and two through lanes. The eastbound approach has two through lanes, and a painted median opposite the westbound left turn.

Pedestrian actuated crosswalks are provided on the south side (across Ridgecrest) and east sides (across Main), though no receiving sidewalks are available on the north side of Main Street west of the intersection. As part of this development, the multiple driveways on the north side of the intersection will be formalized as a fourth intersection approach that would serve as the primary access to the site.

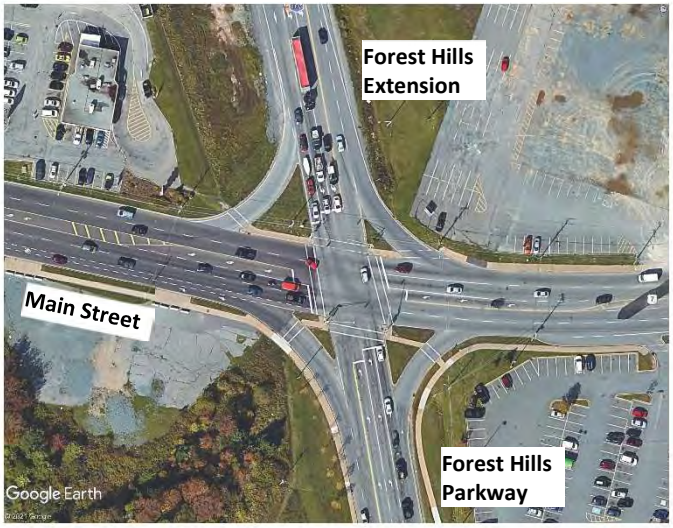
Figure 6 – Intersection of Main Street at Golf View

Main Street and Golf View Drive

Main Street at Golf View Drive is a legacy stop-controlled, and highly skewed (73° off perpendicular) intersection located approximately 200 meters west of the Main Street / Forest Hills intersection. Golf View is a two-lane local roadway that serves as the main access to the existing Lake Loon Golf Center (driving range / mini-golf). Just east of the golf center, Golf View Drive ends at a gated private access to a single lane gravel roadway.

Main Street at Forest Hills Parkway

Figure 7 – Intersection of Main Street at Forest Hills



The intersection of Main Street at Forest Hills is a large four-leg signalized intersection. Both Main Street approaches have two through lanes, a shared right turn slip lane, and single dedicated left turn lanes. Both Forest Hills approaches have single-through lanes, right-turn slip lanes, and two dedicated left-turn lanes.

The Forest Hills Extension between Main Street and Highway 118 to the north (about 7.5 km) is a two-lane highway with rural cross section, a posted speed of 100 km/h, and is owned and operated by Nova Scotia Department of Public Works. It is an access-controlled highway connecting Main Street to the Burnside Business Park, and the now operational Burnside Connector with access directly to Highway 102 and Lowe Sackville. Work is currently ongoing to expand the cross section to 4-lanes from Burnside and extending just south of Exit 14 (at Montague Road).

South of Main Street, Forest Hills Parkway is two-lane urban undivided roadway connecting Main Street to Portland Street approximately 2.6 kilometers to the south. There are multiple signalized intersections along Main Street immediately east of Forest Hills, and south along the Forest Hills Parkway.

2.3 Active Transportation

The figure below shows the existing pedestrian infrastructure near the proposed development. This includes existing sidewalks along the south side of Main Street from Ridgecrest Drive to Forest Hills Parkway that connect with various pathways shown in Green, and sidewalks along Ridgecrest and Mt. Edward Road. There are no sidewalks on Main Street west of Ridgecrest Drive or along the Forest Hills Extension. HRM Active Transportation Mapping shows the future extension of the Trans Canada Trail along the west side of the Forest Hills Extension between the Highway and the development, and crossing Main Street to continue south toward Portland Street.

Figure 8 – Existing Active Transportation Infrastructure

2.4 Transit

Existing Transit routes are shown in the figure below and are based on the most recent route map available on the Halifax Transit website. Service in the areas is focused around the Portland Hills Transit Terminal, which accommodates 14 individual routes including the Bus Rapid Transit (BRT) "Red Line". Nearby routes include:

- Routes 61 and 161 along Forest Hills Parkway and Main Street east of Forest Hills
- Route 63 along Mount Edward Drive, and
- Routes 68, 168A and 168B that travel various local routes near Cole Harbour Place and into Cherry Brook.

Currently, no transit service is available immediately adjacent to the proposed development, with the nearest routes along Main Street or Mount Edward being about 400 meters from the boundary of the proposed development. Given the density of the proposed development, route alterations to accommodate transit service adjacent to, or through the proposed development is logical and consistent with HRM mobility objectives.

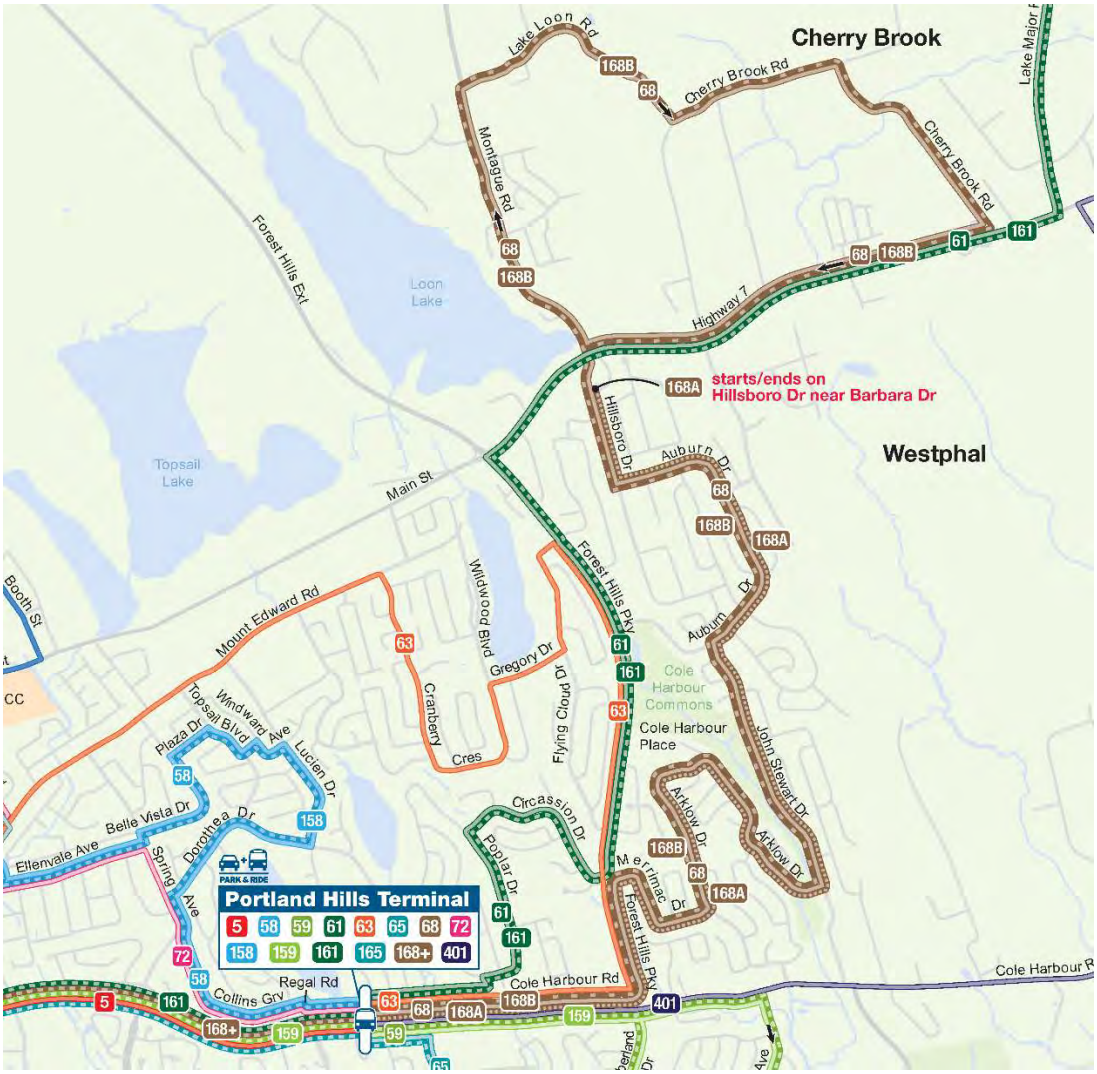


Figure 9 – Existing Transit Routes

2.5 Collision History

HRM's Open Data portal was used to extract recent historic collisions in the study area to better understand the location and nature of collisions. There was a total of 208 reported collisions between January 2018, and October 2024.

The figure to the right shows a heat map of collision locations, clearly indicating that most collisions occur at the major intersections, specifically at the Main/Forest Hills, and Main/Ridgecrest locations.

Figure 10 – Collision Heat Map *(HRM data using Julius.ai)*

The figure below shows the break down of collisions by type and by year. The chart shows that collisions are relatively evenly distributed over each year, with 92 (44%) Rear-End collisions being the most frequent collision type.

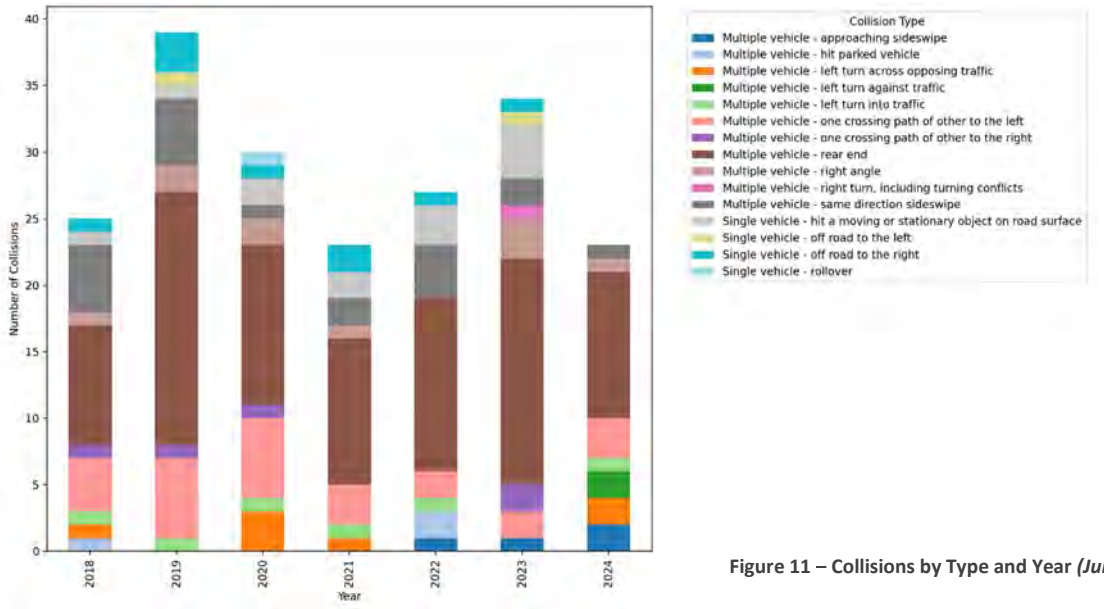


Figure 11 – Collisions by Type and Year *(Julius.ai)*

2.6 2024 Existing Traffic Conditions

Existing traffic counts were carried out using Miovision automated traffic counting technologies. Intersection turning movement counts were completed at the following intersections:

- Main Street at Ridgecrest: July 17th, 2024
- Main Street at Forest Hills Parkway: July 30th, 2024

The following additional historical count data was also available and consulted as part of this study:

- Main Street at Ridgecrest: October 5th, 2017 – turning movement count
- Main Street at Ridgecrest: October 5th, 2017 – pedestrian movement count
- Main Street at Ridgecrest: November 16th, 2022 – turning movement count
- Main Street at Ridgecrest: March 22nd, 2022 – turning movement count (Fathom Studio)
- Main Street at Forest Hills Parkway: November 15th, 2022 – turning movement count
- Main Street at Forest Hills Parkway: November 7th, 2024 – turning movement count
- Main Street at Forest Hills Parkway: March 22nd, 2022 – turning movement count (Fathom Studio)

All data sources were reviewed to determine the design hour volume for the AM and PM peak hour periods. A summary of the existing design hour traffic volumes used in the analysis is shown below.

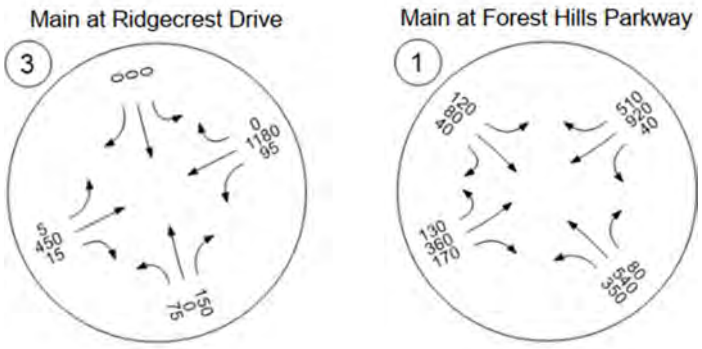


Figure 12 – Existing AM Peak Traffic Volumes

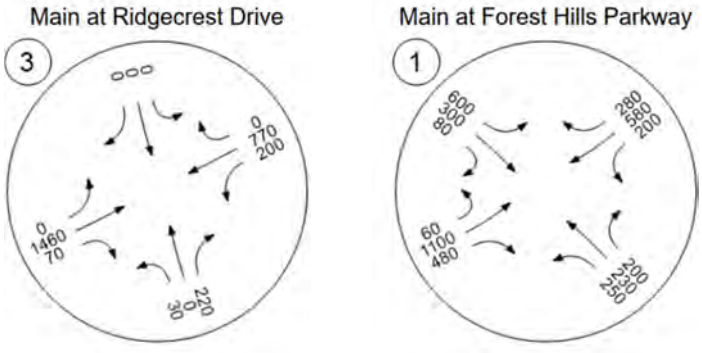


Figure 13 – Existing PM Peak Hour Traffic Volumes

2.7 Traffic Operations

Traffic network operations are most commonly assessed using a level of service (LOS) analysis at critical intersections, during peak periods of traffic (typically the weekday AM and PM peak hours). LOS is a measure of the average delay of each vehicle traveling through an intersection with grades ranging from 'A' to 'F'. 'A' is associated with minimal delay, and 'F' is associated with heavily congested conditions.

The desired or acceptable level of service can vary depending on the location and context of individual streets. This study is based on HRM's TIS guidelines where the LOS limit for an intersection is 'E', for individual movements is 'F', and the volume-to-capacity ratio thresholds are 0.85 for shared movements and 1.0 for dedicated turn lanes. Table 1 provides the LOS criteria defined by the *Highway Capacity Manual* for traffic signal-controlled intersections.

Level of Service Thresholds for Signalized Intersection		
Level of Service	Average Control Delay (seconds per vehicle)	General Description
A	≤ 10	Free flow
B	> 10 – 20	Stable flow (slight delays)
C	> 20 – 35	Stable flow (acceptable delays)
D	> 35 – 55	Approaching unstable flow (tolerable delay, occasionally wait through more than one signal cycle before proceeding)
E	> 55 – 80	Unstable flow (intolerable delay)
F	> 80	Forced flow (congested and queues fail to clear)

Table 1 – LOS Criteria for Signal controlled intersections

The existing **AM peak hour** analysis shows the highest volumes are experienced on Main Street in the westbound direction (WB – inbound toward the Halifax/Dartmouth core areas) and are evident at both the Forest Hills and Ridgecrest intersections. As a three-leg signalized intersection, Ridgecrest and Main operates at very good Levels of Service (LOS) during the AM Peak with an overall intersection LOS of B and significant excess capacity as limited volumes on Ridgecrest allow the majority of green time to be attributed to Main Street movements.

Main Street at Forest Hills Parkway - 2024 AM Existing														
LOS Criteria	Intersection Control	Main Street			Main Street			Forest Hills Pky			Forest Hills Ext			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		130	360	170	40	920	510	350	540	80	120	80	40	
v/c		0.87	0.26	0.21	0.09	0.99		0.48	1.24	0.18	0.23	0.42		
Delay (s)		66.1	23.0	3.9	15.2	53.3		40.4	162.2	2.2	42.9	40.9		61.8
LOS		E	C	A	B	D		D	F	A	D	D		E
95th% Queue (m)		48.4	39.7	13.3	10.6	211.8		50.6	218.8	3.1	21.4	39.7		
Main Street at Ridgecrest Drive - 2024 AM Existing														
LOS Criteria	Intersection Control	Main Street			Main Street			Ridgecrest			New Entrance			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count			450	15	95	1180		75		150				
v/c			0.32		0.18	0.59		0.22		0.22				
Delay (s)			15.0		7.0	10.5		24.6		0.7				11.2
LOS			B		A	A		D		A				B
95th% Queue (m)			32.5		10.4	66.3		25.6		0.0				

Table 2 – 2024 Existing AM Peak Hour LOS Analysis

In past studies, and through site observations, the higher volume Main/Forest Hills intersection has been identified as experiencing some levels of congestion during the peak periods. During the AM peak hour, the highest volume movements are in the northbound (NB) and westbound (WB) directions, which compete for

available green time at the intersection and result in both operating near, or over capacity. Actual relative capacity utilization and the resulting delay/queuing will depend on the traffic signal actuation parameters and prioritization based on the radar detection and controller technologies present at the intersection. All other movements at the intersection operate within HRM parameters with an overall intersection LOS of E.

During the 2024 existing **PM peak hour**, the highest volumes on Main Street are experienced in the eastbound (outbound) direction. Similar to the AM peak, the Ridgecrest intersection operates at good levels of service, though overall capacity utilization is higher due to more concentrated peak volumes in both the eastbound and westbound directions. The higher volume Main / Forest Hills intersection operates at acceptable levels of service, with the exception of the southbound movements on the Forest Hills Extension. Based on site investigations and observations, this movement frequently experiences significant queuing along the Forest Hills Extension, though the length of queue can vary day-to-day depending on the short-term density of vehicles arriving at the intersection. Over past years of operation, the overcapacity movements are generally restricted to a single movement at the intersection and priority (i.e. where the excess queuing occurs) appears to have shifted between the eastbound movements on Main Street and the southbound movements on the Forest Hills Extension.

Main Street at Forest Hills Parkway - 2024 PM Existing														
LOS Criteria	Intersection Control	Main Street			Main Street			Forest Hills Pky			Forest Hills Ext			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		60	1100	480	200	580	280	250	230	200	600	300	80	
v/c		0.23	0.85	0.50	0.91	0.65		0.5	0.82	0.57	0.88	1.04		
Delay (s)		15.5	37.1	4.1	63.0	25.3		43.4	64.9	19.8	55.3	96.2		40.7
LOS		B	D	A	E	C		D	E	B	E	F		D
95th% Queue (m)		12.8	135.5	20.3	66.8	88.2		37.2	85.8	33..1	91.8	140.6		
Main Street at Ridgecrest Drive - 2024 PM Existing														
LOS Criteria	Intersection Control	Main Street			Main Street			Ridgecrest			New Entrance			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count			1460	70	200	770		30		220				
v/c			0.93		0.84	0.36		0.1		0.47				
Delay (s)			29.9		43.4	6.7		25.3		11.0				22.8
LOS			C		D	A		C		B				C
95th% Queue (m)			179.8		55.9	37.0		11.3		26.8				

Table 3 – Existing PM Peak Hour LOS Analysis

3.0 DEVELOPMENT TRAFFIC

3.1 Access Review

The proposed site has two access points with the main access being through the Ridgecrest Drive signalized intersection. A secondary access is provided using the Golf View Drive intersection that can accommodate limited traffic volumes and provides several options for secondary emergency access to the site. As there are relatively good levels of service at the Main/Ridgecrest intersection, there is limited appeal to using the Golf View access option for any movements except for the westbound entry movement to the site.

The existing skew angle at the busy Main Street intersection is a safety concern and does not meet intersection design best practices therefore, regardless of the development, options should be considered to modify the intersection geometry to provide for improved geometric, operational and safety conditions. This may include realignment of the intersection and should consider restrictions to a right-in/right-out only arrangement. For the purposes of traffic modeling, a conservative assumption was made that all movements to and from the development will use the Ridgecrest signalized access.

3.2 Site Generated Traffic

Site-generated traffic volumes for the proposed development were estimated using rates from the ITE Trip Generation Manual (TGM), 11th Edition. For this study, we have used Land Use Code 221 Multi-Family Housing – Mid-Rise to represent the residential portion of the development, LUC 822 Strip Retail Plaza, and LUC 934, Fast-Food Restaurant with Drive-Through to represent the planned commercial portion.

Transit routes exist within the vicinity of the development, but there are no direct routes present on the roadways directly adjacent to the development. As most development areas is outside a 400-meter walkshed, the preliminary analysis for this project assumed no additional trip generation reductions for transit modal share. This is consistent with direction provided from HRM regarding modal share assumptions and presents a conservative, worst-case scenario from a traffic perspective. From a practical perspective, this development has been designed as a transit and active transportation oriented development, with densities and area connectivity that is highly likely to attract transit and AT users assuming that reasonable infrastructure is in place to support residents.

Pass-by trips were estimated for the fast-food restaurant using the ITE Trip Generation Manual, which suggests pass-by rates ranging from 32-62%. A rate of 50% was used for this study. Internal Capture trips were estimated using the NCHRP 684 spreadsheet. Internal Capture trips were constrained by the trip generation for commercial land uses, therefore a rate of 5% of the total residential trips was used for this study.

A summary of trip generation is shown in the following table.

Table 4 – Trip Generation

Land Use	Code	Units	Variable	Trip Generation Rates[1]						Trips Generated			
				AM Peak			PM Peak			AM Peak		PM Peak	
				Rate	In	Out	Rate	In	Out	In	Out	In	Out
Mid-Rise A-B-C	221	550	Dwellings	0.32	23%	77%	0.39	61%	39%	40	136	131	84
Mid-Rise D-E-F	221	500	Dwellings	0.32	23%	77%	0.39	61%	39%	37	123	119	76
Mid-Rise G-H-I-J	221	550	Dwellings	0.32	23%	77%	0.39	61%	39%	40	136	131	84
Commercial	822	1800	1000 ft^2	2.36	60%	40%	6.59	50%	50%	3	2	6	6
Commercial	934	1300	1000 ft^2	44.61	51%	49%	33.00	52%	48%	30	28	22	21
Estimated Site Generated Trips										150	424	409	270
	Mode Share Reduction (not included)									0	0	0	0
	Pass-by-Trip Reduction- To be applied to LUC 934 (50%)									15	14	11	10
	Internal Trip Capture - applied to LUC 822, 934, and residential (5%)									6	20	19	12
Total Estimated Site Generated Trips										**129**	**390**	**379**	**247**
Notes:	1. Trip generation rates from ITE *Trip Generation Manual* , 11th Edition, fitted rates 2. Pass-By Trips derived from ITE Trip Generation Manual, 11th Edition and applied to LUC 934 3. Internal Trip Capture based on NCHRP 684												

3.3 Trip Distribution and Assignment

It is assumed that residential trip distribution will be similar to the trip distribution used in the 2017 Port Wallace Master plan study[1], which was based on the 2031 VISUM Regional Travel Demand Model. A summary regional trip distribution is shown in the figure to the right.

Figure 14 – Site Trip Distribution

For trips to the north, it was assumed that all vehicles would use Forest Hills Extension *(10% of total)*. For trips to the east, it was assumed that all vehicles would use Main Street *(5% of total)*. Trips to the south assumed that 60% of vehicles would travel west on Main Street *(20% of total)*, 35% of vehicles would travel south on Forest Hills Parkway *(10% of total)*, with a small portion travelling south on Ridgecrest to Mt. Edward *(5% of total)*. For trips to the west (which includes destinations such as Burnside, Bedford, and Halifax via the

[1] Port Wallace Master Plan Final Report (CBCL 2017)

Mackay Bridge), it was assumed that 50% of vehicles would use Forest Hills Extension *(25% of total)*, and 50% would travel west on Main Street *(25% of total)*. A summary of the distribution for the study area is shown in the figure below.

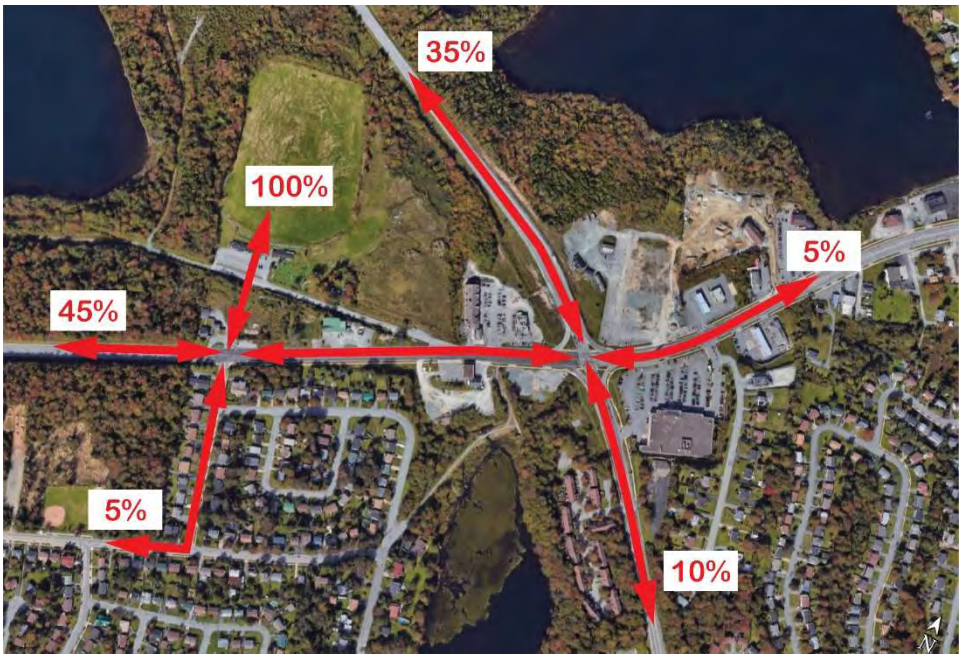


Figure 15 – Site Trip Assignment

4.0 FUTURE CONDITIONS

4.1 2036 Background Traffic Volumes

Background traffic is the traffic added to the roadway network by general annual traffic growth. In recent years, estimating this growth has become a challenging task. Prior to COVID, background growth was typically slow and steady in most parts of the Municipality. The pandemic created shifts to alternate modes of travel and opportunities for alternate or modified work arrangements, though the timing and extent of the recovery from COVID travel impacts has varied. These factors are further combined with unprecedented population growth rates throughout the region.

The combination of limited route options and frequent congestion on Main Street has limited peak-hour growth in this area, which has resulted in the spreading of peak hour volumes over a longer period. Given the capacity restrictions, an annual average growth rate of 0.5% per year was assumed, which is consistent with previous studies along Main Street (east of the site).[2]

For this study, it is assumed that the development will be completed by 2031 and the horizon year for the analysis would be 2036. Note that volumes in the Fathom report for the long-term care facilities east of the Forest Hills are assumed to be included in the background traffic volumes.

A level of service (LOS) analysis was completed for 2036 background traffic volumes to determine how the intersections would operate without the addition of site-generated traffic. A summary of the results is shown below:

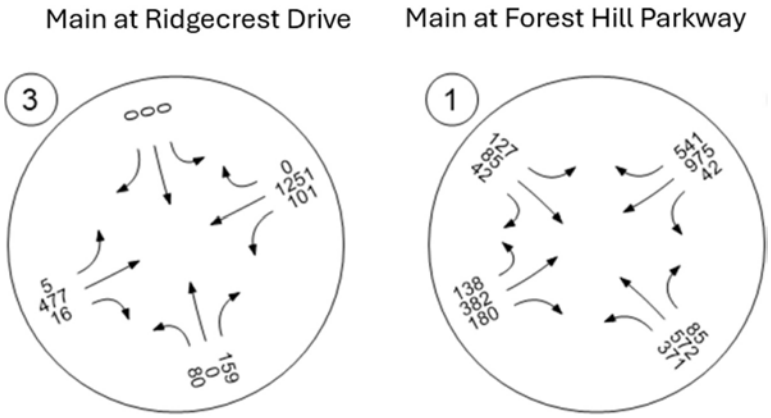


Figure 16 – Background AM Peak hour Volumes

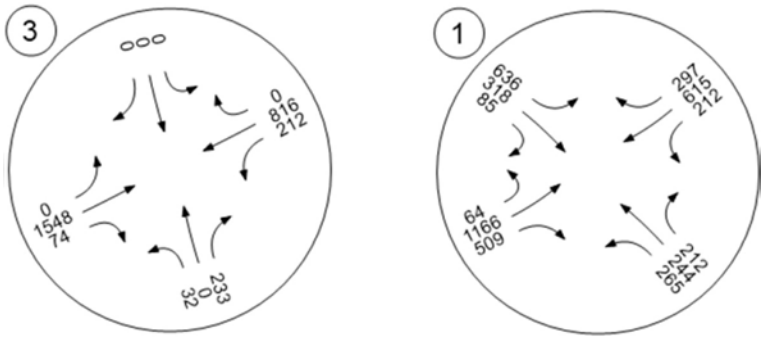


Figure 17 – Background PM Peak hour Volumes

[2] Source: Lake Loon Development Transportation Impact Study (March 2022 – Fathom)

During the 2036 AM peak hour with background traffic growth only, the Ridgecrest intersection remains a three-leg intersection that continues to operate at good level of service.

At the higher volume Forest Hills intersection, the critical westbound and northbound through movements experience increases in delay and queuing resulting in both movements operating over capacity, with all other measures of performance remaining within HRM requirements. These increases push the intersection delay to about 81 seconds or LOS F for the overall intersection.

Main Street at Forest Hills Parkway - 2036 AM with Background Traffic Only														
LOS Criteria	Intersection Control	Main Street			Main Street			Forest Hills Pky			Forest Hills Ext			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		138	382	180	42	975	541	371	572	85	127	85	42	
v/c		0.55	0.23	0.19	0.09	1.11		0.48	1.31	0.17	0.31	0.56		
Delay (s)		24.7	19.4	3.6	13.9	91.5		39.5	190.7	0.8	45.7	48.2		80.9
LOS		C	B	A	B	F		D	F	A	D	D		F
95th% Queue (m)		32.4	40.6	13.1	10.3	251.6		53.7	239.2	0.0	22.8	42.3		
Main Street at Ridgecrest Drive - 2036 AM with Background Traffic Only														
LOS Criteria	Intersection Control	Main Street			Main Street			Ridgecrest			New Entrance			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count			477	16	101	1251		80		159				
v/c			0.34		0.20	0.62		0.23		0.24				
Delay (s)			15.2		7.2	11.0		24.8		0.8				11.6
LOS			B		A	B		C		A				B
95th% Queue (m)			39.7		12.5	82.6		22.7		0.0				

Table 5 – Background AM Peak Hour LOS Analysis

For the 2036 Background PM Peak hour, with background traffic only added, the Ridgecrest intersection continues to operate at good level of service.

At the Forest Hills intersection, the southbound movement experiences increased capacity utilization and associated delay and queuing as shown in the table below. The associated green time required for this southbound movement further impacts other movements at the intersection resulting in some increases in capacity utilization and delay, though balancing green time allocation can keep other movements within HRM guidelines.

Main Street at Forest Hills Parkway - 2036 PM with Background Traffic Only														
LOS Criteria	Intersection Control	Main Street			Main Street			Forest Hills Pky			Forest Hills Ext			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		64	1166	509	212	615	297	265	244	212	636	318	85	
v/c		0.27	0.90	0.53	0.96	0.69		0.53	0.87	0.6	0.93	1.10		
Delay (s)		16.2	41.2	5.3	75.2	26.4		44.0	71.2	22.0	62.4	114.2		45.7
LOS		B	D	A	E	C		D	E	C	E	F		D
95th% Queue (m)		12.8	135.5	20.3	66.8	88.2		37.2	85.8	33..1	91.8	140.6		
Main Street at Ridgecrest Drive - 2036 PM with Background Traffic Only														
LOS Criteria	Intersection Control	Main Street			Main Street			Ridgecrest			New Entrance			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count			1548	74	212	816		32		233				
v/c			0.99		0.89	0.38		0.11		0.5				
Delay (s)			39.7		51.7	6.9		25.4		12.6				29.0
LOS			D		D	A		C		B				C
95th% Queue (m)			198.3		61.1	39.8		11.9		30.4				

Table 6 – Background PM Peak Hour LOS Analysis

4.2 2036 Development Traffic Volumes

The 2036 total traffic volumes are based on the addition of the 2036 background volumes plus the site-generated traffic added by the fully built-out development. A summary of the volumes used for this analysis is shown below:

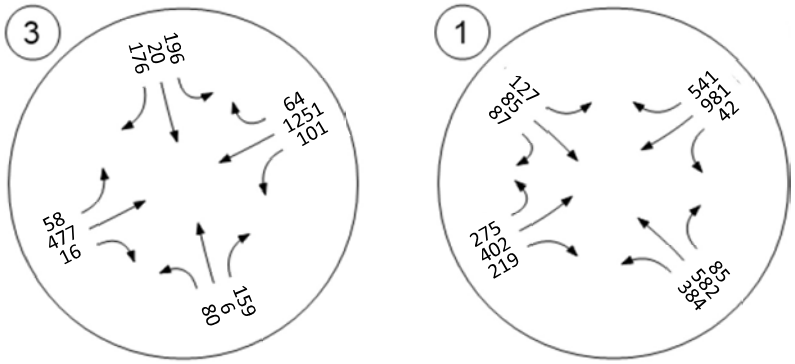


Figure 18 – Total AM Peak Hour Volumes

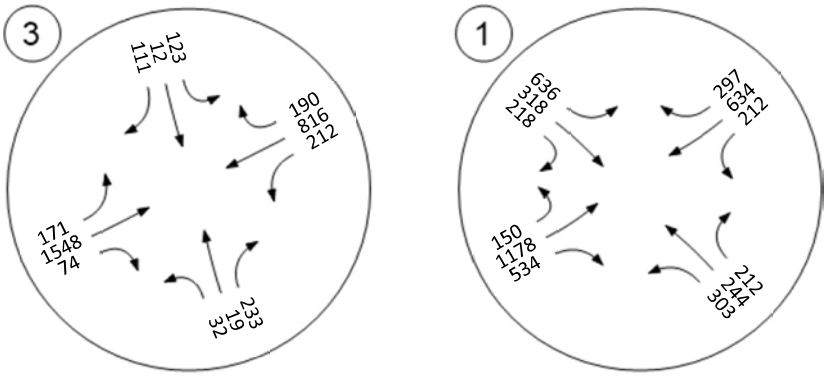


Figure 19 – Total PM Peak hour volumes

For the 2036 Total **AM Peak hour** conditions, the **Ridgecrest** intersection becomes a 4-leg intersection with the addition of the new driveway / access road to the proposed development. Volumes to and from the development are similar in magnitude to the future volumes on Ridgecrest opposite the new driveway. As a result, the operational impacts to movements on Main Street are minimal and the north and southbound movements reasonably compliment each other, as most movements are right turns and there are limited northbound left turn volume to oppose through and left turn movements from the new access road.

Main Street at Forest Hills Parkway - 2036 AM with Background + Development Traffic														
LOS Criteria	Intersection Control	Main Street			Main Street			Forest Hills Pky			Forest Hills Ext			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		275	402	219	42	981	541	384	582	85	127	85	87	
v/c		0.96	0.24	0.23	0.09	1.16		0.51	0.35	0.18	0.30	0.69		
Delay (s)		71.9	20.1	3.4	14.1	111.6		41.5	208.7	0.8	45.9	51.1		91.8
LOS		E	C	A	B	F		D	F	A	D	D		F
95th% Queue (m)		100.2	43.4	14.5	10.3	256.7		56.2	241.9	0.0	23.0	52.8		
Main Street at Ridgecrest Drive - 2036 AM with Background + Development Traffic														
LOS Criteria	Intersection Control	Main Street			Main Street			Ridgecrest			New Entrance			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		58	477	16	101	1251	64	80	6	159	196	20	176	
v/c		0.40	0.34		0.20	0.62	0.07	0.36	0.32		0.49		0.39	
Delay (s)		24.7	15.2		7.2	11.0	1.9	28.7	6.2		28.8		16.4	13.8
LOS		C	B		A	B	A	C	A		C		B	B
95th% Queue (m)		18.8	39.7		12.5	82.6	4.4	24.5	15.4		53.4		31.8	

Table 7 – Total AM Peak Hour LOS analysis

The **Forest Hills** intersection, also experience limited impact from the new development as significant new volume increases at the intersection all occur on movements that are currently under capacity. In other words, the development adds volumes that do not occur on the critical movements that are currently near or over capacity due to existing and future background volumes. The most significant impact of the new development during the AM peak hour is the eastbound left turn movement from Main Street to northbound Forest Hills Extension. This movement starts to approach capacity despite relatively low volumes on the movement primarily due to the green time demands placed on the intersection due to other high-volume movements. Similarly, the higher delays are related to the longer cycle lengths required at the intersection as opposed to extensive queuing, meaning that all vehicles will typically clear the intersection during each cycle.

Similar impacts are noted during the **PM peak hour** where the addition of the fourth leg at the **Ridgecrest** intersection has limited impacts on overall intersection operation. The critical eastbound movement, which has the highest volumes through the intersection operates near capacity and suggests that careful management of green time allocation will be important as volumes increase along the Main Street corridor. This also suggests that more advanced intersection detection and signal actuation technologies should be incorporated into the intersection signal redesign to accommodate the 4th leg of the intersection. Further, there may be some advantages to considering interconnection between the Ridgecrest and Forest Hills intersections (as well as intersections east of Forest Hills) to help facilitate improved corridor progression.

Main Street at Forest Hills Parkway - 2036 PM with Background + Development Traffic														
LOS Criteria	Intersection Control	Main Street			Main Street			Forest Hills Pky			Forest Hills Ext			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		150	1178	534	212	634	297	303	244	212	636	318	218	
v/c		0.64	0.91	0.56	0.96	0.70		0.61	0.87	0.6	0.93	1.44		
Delay (s)		28.9	42.2	6.1	75.2	27.0		45.9	71.2	22.0	62.4	245.5		61.9
LOS		C	D	A	E	C		D	E	C	E	F		E
95th% Queue (m)		30.1	161.5	33.4	72.9	99.0		44.5	92.6	36.6	100.4	212.2		
Main Street at Ridgecrest Drive - 2036 PM with Background + Development Traffic														
LOS Criteria	Intersection Control	Main Street			Main Street			Ridgecrest			New Entrance			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Intersection
Vehicle Count		171	1548	74	212	816	190	32	19	233	123	12	111	
v/c		0.62	0.99		0.89	0.38	0.19	0.13	0.54		0.36		0.26	
Delay (s)		25.1	39.7		51.7	6.9	1.2	25.9	14.2		28.8		6.9	26.7
LOS		C	D		D	A	A	C	B		C		A	C
95th% Queue (m)		45.6	198.3		61.1	39.8	6.3	12.0	35.1		36.4		12.8	

Table 8 – Total PM Peak Hour LOS Analysis

At the **Forest Hills** intersection during the **PM peak** hour, capacity utilization for southbound through vehicles continues to be the critical movement at the intersection. The highest volumes related to the proposed development are the southbound right turn movements from the Forest Hills Extension to westbound Main Street toward the development. This movement typically has limited impact on the overall intersection operations as the right turns can generally flow freely into the right turn channelization as vehicles approach the intersection, though the ability to get to the channelized turning lane is restricted by queues that exist at most times on the southbound approach. Site observations indicate that under the current configuration, a significant number of vehicles travel along the gravel shoulder of the Forest Hills Extension during the PM peak hour to bypass the longer queues that can occur for the southbound movement. This suggests that the addition of a dedicated right turn-lane would benefit existing operations as well as future operations with the new development in place.

5.0 DISCUSSION AND CONCLUSIONS

Metro Premier Properties is planning a mixed-use development on the northwest corner of Main Street and Forest Hills Extension intersection consisting of up to 1600 residential units, and about 3,000 square feet of commercial space. The proposed development is located on a prime piece of land along the Main Street corridor that provides excellent transportation connectivity to major transportation routes, including:

- Main Street east and west of the development,
- Forest Hills Extension to the north with access to Highway 118, Burnside Business Park, Dartmouth Crossing, and the Burnside Connector to Highway 102 and Lower Sackville, and
- Forest Hills Parkway to the south with access to Portland Street / Cole Harbour Road, Cole Harbour Place, Portland Hills Transit Terminal, Rainbow Haven and Lawrencetown beaches.

The addition of the development on the north side of the roadway will help clean up a variety of existing access and legacy development issues and create a modern and more vibrant roadside environment in the vicinity of the development. In this respect, the proposed development becomes an infill opportunity that helps close the undeveloped gap between the restricted watershed areas surrounding Topsail and Lemont Lake immediately west of the development, and the prominent commercial development areas east and immediately west of Forest Hills Parkway/Extension.

Study Area Operations

Study area analysis was completed using recent traffic counts and Highway Capacity Manual (HCM) methodologies as per the HRM Guidelines for Transportation Impact Studies. From a technical standpoint, the analysis shows that the primary entrance to the development at Main Street and Ridgecrest Drive operates at an acceptable level of service in all scenarios. The one exception worth noting is the eastbound PM peak hour through movement on Main Street. This approach operates with relatively high-capacity utilization today, with its volume to capacity ratio marginally increasing in the future. This is primarily due to increases in background traffic growth as the development does not directly add traffic to this through movement. These findings indicate that higher order infrastructure improvements or increased modal share distribution will be required in the future, regardless of whether this development proceeds or not.

The Forest Hills and Main Street intersection is well recognized as a location that can experience varying levels of congestion during the AM and PM peak hours. It is a large, busy intersection throughout most of the day as it connects multiple major transportation corridors HRM. The AM Peak hour experiences competition between the northbound and westbound green time allocations that are primarily associated with the through movements on each of those approaches. This can frequently cause some level of congestion when travelling through the intersection. During the PM Peak hour, the critical movements are on the southbound Forest Hills Extension approach, though this is somewhat dependent on how green time is allocated between the busier eastbound and southbound movements through the intersection.

Regional Perspective

From a more regional perspective, this development is located in the middle of a significant number of large- and small-scale proposed development areas representing well over 20,000 units of residential accommodation. Larger planning locations include the “Special Planning Areas” for:

- Westphal Urban Reserve Lands located east of the development on Main Street, which the HRM website suggests unit development of between 12,000 and 18,000 units,
- Port Wallace Development, currently under construction just north of the development,
- Southdale/Mount Hope located along the Circumferential Highway near the Mount Hope interchange,
- 1226 Cole Harbour Road located just east of the Forest Hills Parkway on Cole Harbour Road,
- Morris Lake Expansion area near Shearwater.

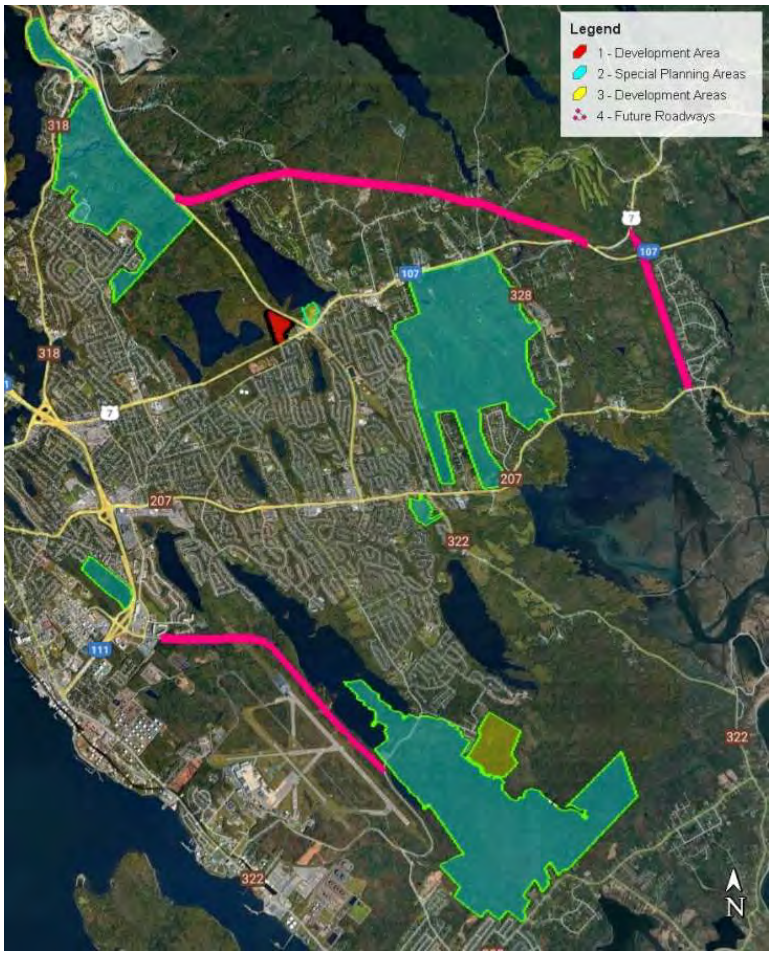


Figure 20 – Development Areas and Future Roads

There is also a 600-unit long-term care facility and seniors' development proposed on the west side of Forest Hills, and a variety of other smaller proposed developments in the area. While in some ways daunting, this level of development provides significant opportunities for transportation and mobility improvements in the surrounding areas. For example, the Westphal Special Planning Area provides impetus to more aggressively pursue the Cherrybrook connecter, which would be essential to accommodate such development, and provides another major transportation route between Main Street and the Forest Hills Extension. Such a connection would result in a very significant improvement to operations at the Main/Forest Hills intersection.

Transit Service

Transit service in the vicinity of the development is currently absent and nearby services are limited due to relatively low-density residential development and inadequate commercial concentration to incentivize transit routes to service the areas surrounding the Forest Hills/Main intersection. The proposed development (and other nearby development opportunities) will significantly increase the density in the area, which typically triggers the demand for increased transit services. In this manner, the proposed development can serve as a catalyst to start the process for transit route revisions to better service the larger surrounding area.

Such revisions could be simple extensions of existing nearby routes (Route 63 on Mount Edward or Routes 61/161 along the Forest Hills Parkway), or additional more direct routes that better connect Main Street to the Penhorn Terminal, Micmac Terminal, Ferry Terminals, and/or the Bridge Terminal near the Macdonald Bridge. Each of the options have the ability to significantly impact transit ridership along the Main Street corridor and help reduce vehicular reliance that currently impacts congestion on Main Street.

Active Transportation

From an active transportation perspective, the development again can serve as a catalyst to enhance existing active transportation connections by:

- Making progress on an important section of the TransCanada Trail immediately adjacent to the Forest Hills extension (in coordination with the Port Wallace development),
- Pursue appropriate crossings of Main Street for the Trans Canada Trail and other AT routes near the Main/Portland intersection (some of which are absent),
- Provide AT connections at the Main/Ridgecrest intersection, and
- Help resolve unconnected bike lanes along Main Street that connect this development to the surrounding area.

Required Improvements

The proposed development will require a number of infrastructure upgrades to mitigate impacts of the development. These include:

1. Redesign and upgrading of the Main/Ridgecrest intersection to accommodate the northern fourth leg of the intersection as the Main access to the development. This should include review of existing and potential traffic signal and detection technologies to integrate operations between the Ridgecrest and Forest Hills intersections.
2. Addition of an eastbound left-turn lane on Main Street (opposite the existing westbound left-turn lane) to facilitate movements into the development.
3. Construction of a four-leg, two-way stop-controlled intersection at Golf View Drive and the access road to the development.
4. Active transportation connectivity between the development and the Forest Hills/Main intersection. This could potentially utilize Golf View Drive as part of the AT connectivity for the area; and,
5. Confirm and construct the preferred alternative for secondary emergency access.

Other Associated Improvements

Other improvements in the area that are prudent to consider in conjunction with the development, but are not directly required for accommodation of the development include:

- Coordination with HRM on implementation of a bike-lane on the north side of Main Street, including connectivity through the Main/Forest Hills intersection.
- Coordination with HRM on the accommodation of the Trans Canada Trail along the east side of the development.
- Coordination with Halifax Transit on preferred route and bus stop locations and transit priority features to support transit service for the development.
- Development of a southbound right turn lane on the Forest Hills Extension to better support the right turn movements. This improvement is required today based on current intersection operations and impacts all users through the Main/Forest Hills intersection, though also provides benefit for vehicles destined to the development during the PM peak hour.
- Improved AT connectivity between the Main/Forest Hills intersection, and Tim Hortons/Commercial Land Uses in the northwest quadrant of the Main/Forest Hills intersection.

Bigger Picture Improvements

The critical improvement required for this area is the available capacity at the Main Forest Hills intersection. There are a variety of improvements that could be considered to accomplish this that involve either the addition of lane and intersection capacity, or through the reduction in vehicles that currently use the intersection. This could include:

- Regional improvements such as the construction of the Cherry Brook Connector (particularly in consideration of the Westphal Urban Reserve Lands).
- Lane additions through the Main/Forest Hills intersection including extension of the northbound right turn receiving lane on the Forest Hills Extension, for improved operational efficiency of the westbound to northbound right turn movement, or potentially to accommodate two northbound through lanes (and therefore reduce green time requirements for the movement).
- Alternate intersection configurations, such as roundabouts (not evaluated as part of this study).
- Implementation of "Smart" signal technologies for improved operational efficiency and coordination.

A Final Word

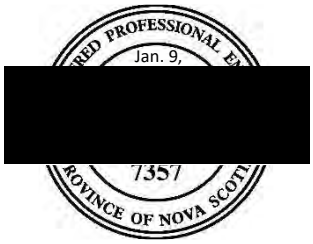
The location and magnitude of the various developments in the areas surrounding the Main Street / Forest Hills intersection provide the opportunity and incentive to re-think the local transportation and mobility network. Working in coordination with HRM, the Lake Loon Development serves as one of the potential high-density catalysts to start this process and develop a longer-term plan that provides a much higher level of multimodal mobility opportunity for residents of the area.

In the short term, the Lake Loon development integrates well into the existing mobility networks by taking advantage of existing intersection movements that are currently below capacity and adding minimal trips to movements that are currently near of over capacity. As a results, the development has limited impact on intersection performance as many trips are simply filling in underutilized intersection capacity.

With the addition of direct transit service and active transportation connectivity, this development has the opportunity to directly support, or provide opportunity to implement infrastructure improvements, that meet the requirements and objectives set out in the current Regional Plan and Integrated Mobility Plan.

We trust that the content of this report meets the requirements of HRM for the evaluation of Transportation Impacts for the proposed Lake Loon Development. Please contact the undersigned, if there are any questions or comments related to the content of this report.

Sincerely,



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APPENDIX A – TRAFFIC COUNTS

Halifax Regional Municipality

Traffic Management

Traffic and Right of Way

PO Box 1749 Halifax

Nova Scotia

B3J 3A5

Site Code: Main St at Ridgecrest Dr
Start Date: 2022-11-16

Turning Movement Data - 6 Hour Traffic Count

	Parking Lot Southbound						Main St Westbound						Ridgecrest Dr Northbound						Main St Eastbound						
Start Time	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	Int. Total
7:00:00 AM	0	0	0	0	0	0	0	305	11	0	0	316	27	0	25	0	1	52	2	61	0	-	0	63	431
7:15:00 AM	0	0	0	0	0	0	0	352	26	0	0	378	34	0	13	0	0	47	2	92	0	-	0	94	519
7:30:00 AM	0	1	0	0	0	1	0	325	22	0	0	347	45	0	22	0	0	67	3	92	0	-	0	95	510
7:45:00 AM	0	0	0	0	0	0	0	298	24	0	0	322	34	0	26	0	0	60	3	129	0	-	0	132	514
Hourly Total	0	1	0	0	0	1	0	1280	83	0	0	1363	140	0	86	0	1	226	10	374	0	0	0	384	1974
8:00:00 AM	0	1	0	0	0	1	0	316	23	0	0	339	43	0	16	0	0	59	3	125	0	-	0	128	527
8:15:00 AM	0	1	0	0	0	1	0	307	36	0	0	343	36	0	18	0	0	54	8	117	0	-	0	125	523
8:30:00 AM	1	0	0	0	0	1	0	284	32	0	0	316	34	0	17	0	0	51	9	128	0	-	0	137	505
8:45:00 AM	0	1	0	0	0	1	1	262	27	0	0	290	24	0	15	0	0	39	8	122	0	-	0	130	460
Hourly Total	1	3	0	0	0	4	1	1169	118	0	0	1288	137	0	66	0	0	203	28	492	0	0	0	520	2015
2:00:00 PM	0	0	1	0	0	1	0	161	24	0	0	185	26	0	8	0	0	34	12	224	0	-	0	236	456
2:15:00 PM	0	0	0	0	0	0	0	164	30	0	0	194	33	0	6	0	0	39	6	208	0	-	0	214	447
2:30:00 PM	0	0	0	0	0	0	0	159	24	0	0	183	27	0	10	0	0	37	7	215	0	-	0	222	442
2:45:00 PM	0	0	0	0	0	0	0	174	35	0	0	209	34	0	3	0	0	37	14	210	0	-	0	224	470
Hourly Total	0	0	1	0	0	1	0	658	113	0	0	771	120	0	27	0	0	147	39	857	0	0	0	896	1815
3:00:00 PM	0	0	0	0	0	0	0	155	20	1	0	176	41	0	12	0	0	53	13	252	0	-	0	265	494
3:15:00 PM	0	0	0	0	0	0	0	166	32	0	0	198	37	0	7	0	0	44	11	284	0	-	0	295	537
3:30:00 PM	0	0	0	1	0	1	1	177	30	0	0	208	27	0	8	0	0	35	18	285	0	-	0	303	547
3:45:00 PM	0	0	0	0	0	0	0	200	38	0	0	238	49	0	8	0	0	57	14	314	0	-	0	328	623
Hourly Total	0	0	0	1	0	1	1	698	120	1	0	820	154	0	35	0	0	189	56	1135	0	0	0	1191	2201
4:00:00 PM	0	1	0	0	0	1	0	181	48	0	0	229	55	0	2	0	0	57	14	298	0	-	0	312	599
4:15:00 PM	0	0	0	0	0	0	0	166	55	0	0	221	28	0	4	0	1	32	23	297	0	-	0	320	573
4:30:00 PM	0	0	0	0	0	0	0	149	47	0	0	196	54	0	5	0	0	59	18	306	0	-	0	324	579
4:45:00 PM	0	0	0	0	0	0	0	147	26	0	0	173	51	0	12	0	0	63	12	328	0	-	0	340	576
Hourly Total	0	1	0	0	0	1	0	643	176	0	0	819	188	0	23	0	1	211	67	1229	0	0	0	1296	2327
5:00:00 PM	0	0	0	1	0	1	0	134	26	0	0	160	42	0	7	0	0	49	18	287	0	-	0	305	515
5:15:00 PM	0	0	0	0	0	0	0	127	37	0	0	164	37	1	6	0	0	44	22	100	0	-	0	122	330
5:30:00 PM	0	0	0	0	0	0	0	89	23	0	0	112	25	0	11	0	0	36	51	64	0	-	0	115	263
5:45:00 PM	0	0	0	1	0	1	0	117	18	0	0	135	31	0	13	0	1	44	50	29	0	-	0	79	259
Hourly Total	0	0	0	2	0	2	0	467	104	0	0	571	135	1	37	0	1	173	141	480	0	0	0	621	1367
Grand Total	1	5	1	3	0	10	2	4915	714	1	0	5632	874	1	274	0	3	1149	341	4567	0	0	0	4908	11699
Approach %	10%	50%	10%	30%	-	-	0%	87%	13%	0%	-	-	76%	0%	24%	0%	-	-	7%	93%	0%	0%	-	-	-
Total %	0%	0%	0%	0%	-	-	0%	42%	6%	0%	-	-	7%	0%	2%	0%	-	-	3%	39%	0%	0%	-	-	-
Motorcycles	0	0	0	0	-	-	0	1	1	0	-	-	1	0	0	0	-	-	0	3	0	-	-	-	6
% Motorcycles	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.0%	0.1%	0.0%	-	-	0.1%	0.0%	0.0%	0.0%	-	-	0.0%	0.1%	0.0%	-	-	-	0%
Cars	0	5	1	2	-	-	2	4091	588	1	-	-	712	1	228	0	-	-	287	3673	0	-	-	-	9591
% Cars	0.0%	100.0%	100.0%	66.7%	-	-	100.0%	83.2%	82.4%	100.0%	-	-	81.5%	100.0%	83.2%	0.0%	-	-	84.2%	80.4%	0.0%	-	-	-	82%
Light Goods Vehicles	1	0	0	1	-	-	0	713	104	0	-	-	135	0	41	0	-	-	51	772	0	-	-	-	1818
% Light Goods Vehicles	100.0%	0.0%	0.0%	33.3%	-	-	0.0%	14.5%	14.6%	0.0%	-	-	15.4%	0.0%	15.0%	0.0%	-	-	15.0%	16.9%	0.0%	-	-	-	16%
Buses	0	0	0	0	-	-	0	54	14	0	-	-	18	0	3	0	-	-	2	49	0	-	-	-	140
% Buses	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	1.1%	2.0%	0.0%	-	-	2.1%	0.0%	1.1%	0.0%	-	-	0.6%	1.1%	0.0%	-	-	-	1%
Single-Unit Trucks	0	0	0	0	-	-	0	48	7	0	-	-	8	0	2	0	-	-	1	60	0	-	-	-	126
% Single-Unit Trucks	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	1.0%	1.0%	0.0%	-	-	0.9%	0.0%	0.7%	0.0%	-	-	0.3%	1.3%	0.0%	-	-	-	1%
Articulated Trucks	0	0	0	0	-	-	0	6	0	0	-	-	0	0	0	0	-	-	0	9	0	-	-	-	15
% Articulated Trucks	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.1%	0.0%	0.0%	-	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.2%	0.0%	-	-	-	0%
Bicycles on Road	0	0	0	0	-	-	0	2	0	0	-	-	0	0	0	0	-	-	0	1	0	-	-	-	3
% Bicycles on Road	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.0%	0.0%	-	-	-	0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	-	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	66.7%	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	33.3%	-	-	-	-	-	-	-	-

Halifax Regional Municipality
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Nova Scotia
B3J 3A5

Site Code: Main St at Ridgecrest Dr
Start Date: 2022-11-16

Turning Movement Peak Hour Data (7:30 AM)

	Parking Lot Southbound						Main St Westbound						Ridgecrest Dr Northbound						Main St Eastbound						
Start Time	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	Int. Total
7:30:00 AM	0	1	0	0	0	1	0	325	22	0	0	347	45	0	22	0	0	67	3	92	0	-	0	95	510
7:45:00 AM	0	0	0	0	0	0	0	298	24	0	0	322	34	0	26	0	0	60	3	129	0	-	0	132	514
8:00:00 AM	0	1	0	0	0	1	0	316	23	0	0	339	43	0	16	0	0	59	3	125	0	-	0	128	527
8:15:00 AM	0	1	0	0	0	1	0	307	36	0	0	343	36	0	18	0	0	54	8	117	0	-	0	125	523
Total	0	3	0	0	0	3	0	1246	105	0	0	1351	158	0	82	0	0	240	17	463	0	0	0	480	2074
Approach %	0%	100%	0%	0%	-	-	0%	92%	8%	0%	-	-	66%	0%	34%	0%	-	-	4%	96%	0%	0%	-	-	-
Total %	0%	0%	0%	0%	-	-	0%	60%	5%	0%	-	-	8%	0%	4%	0%	-	-	1%	22%	0%	0%	-	-	-
PHF	-	0.750	-	-	-	0.750	-	0.958	0.729	-	-	0.973	0.878	-	0.788	-	-	0.896	0.531	0.897	-	-	-	0.909	0.984
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	-	-	0	1
% Motorcycles	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	0.0%	0.0%	-	0.1%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0%
Cars	0	3	0	0	-	3	0	1007	84	0	-	1091	132	0	71	0	-	203	13	366	0	-	-	379	1676
% Cars	0.0%	100.0%	0.0%	0.0%	-	100.0%	0.0%	80.8%	80.0%	0.0%	-	80.8%	83.5%	0.0%	86.6%	0.0%	-	84.6%	76.5%	79.0%	0.0%	-	-	79.0%	81%
Light Goods Vehicles	0	0	0	0	-	0	0	207	17	0	-	224	22	0	9	0	-	31	3	70	0	-	-	73	328
% Light Goods Vehicles	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	16.6%	16.2%	0.0%	-	16.6%	13.9%	0.0%	11.0%	0.0%	-	12.9%	17.6%	15.1%	0.0%	-	-	15.2%	16%
Buses	0	0	0	0	-	0	0	14	2	0	-	16	1	0	2	0	-	3	1	11	0	-	-	12	31
% Buses	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.1%	1.9%	0.0%	-	1.2%	0.6%	0.0%	2.4%	0.0%	-	1.3%	5.9%	2.4%	0.0%	-	-	2.5%	1%
Single-Unit Trucks	0	0	0	0	-	0	0	13	2	0	-	15	3	0	0	0	-	3	0	15	0	-	-	15	33
% Single-Unit Trucks	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.0%	1.9%	0.0%	-	1.1%	1.9%	0.0%	0.0%	0.0%	-	1.3%	0.0%	3.2%	0.0%	-	-	3.1%	2%
Articulated Trucks	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	1	0	-	-	1	3
% Articulated Trucks	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.2%	0.0%	0.0%	-	0.1%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.2%	0.0%	-	-	0.2%	0%
Bicycles on Road	0	0	0	0	-	0	0	2	0	0	-	2	0	0	0	0	-	0	0	0	0	-	-	0	2
% Bicycles on Road	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.2%	0.0%	0.0%	-	0.1%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	-	-	-

Halifax Regional Municipality

Traffic Management
Traffic and Right of Way
PO Box 1749 Halifax
Nova Scotia
B3J 3A5

Site Code: Main St at Ridgecrest Dr
Start Date: 2022-11-16

Parking Lot		
Out	In	Total
0	0	0
3	0	3
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
3	**0**	**3**

0	0	0	0	-
0	3	0	0	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	**3**	**0**	**0**	**0**
R	T	L	U	P

AM Peak Hour Data

Start Time: 7:30 AM
End Time: 8:30 AM
Date: 2022-11-16

Motorcycles
Cars
Light Goods
Buses
Single-Unit Trucks
Articulated Trucks
Bicycles on Road
Total

Main St		
Out	In	Total
0	2	2
379	1078	1457
73	216	289
12	16	28
15	13	28
1	2	3
0	2	2
480	**1328**	**1808**

-	-	-	-	**0**	U
0	0	0	0	**0**	L
0	366	70	11	15	1	0	**463**	T
0	13	3	1	0	0	0	**17**	R
-	-	-	-	-	-	-	**0**	P

0	0	0	0	0	0	0	0	R
1246	2	2	13	14	207	1007	84	1	T
105	**0**	0	0	2	2	17	0	0	L
0	0	0	0	0	0	0	0	0	U
0	-	-	-	-	-	-	-	-	P

Main St		
Out	In	Total
1351	**621**	**1972**
2	0	2
2	1	3
15	18	33
16	12	28
224	92	316
1091	498	1589
1	0	1

U	L	T	R	P
0	0	0	0	-
0	71	0	132	-
0	9	0	22	-
0	2	0	1	-
0	0	0	3	-
0	0	0	0	-
0	0	0	0	-
0	**82**	**0**	**158**	**0**

0	0	0
203	100	303
31	20	51
3	3	6
3	2	5
0	0	0
0	0	0
240	**125**	**365**
Out	In	Total
Ridgecrest Dr		

Halifax Regional Municipality
Traffic Management
Traffic and Right of Way
PO Box 1749 Halifax
Nova Scotia
B3J 3A5

Site Code: Main St at Ridgecrest Dr
Start Date: 2022-11-16

Turning Movement Peak Hour Data (3:45 PM)

	Parking Lot Southbound						Main St Westbound						Ridgecrest Dr Northbound						Main St Eastbound						
Start Time	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	Int. Total
3:45:00 PM	0	0	0	0	0	0	0	200	38	0	0	238	49	0	8	0	0	57	14	314	0	-	0	328	623
4:00:00 PM	0	1	0	0	0	1	0	181	48	0	0	229	55	0	2	0	0	57	14	298	0	-	0	312	599
4:15:00 PM	0	0	0	0	0	0	0	166	55	0	0	221	28	0	4	0	1	32	23	297	0	-	0	320	573
4:30:00 PM	0	0	0	0	0	0	0	149	47	0	0	196	54	0	5	0	0	59	18	306	0	-	0	324	579
Total	0	1	0	0	0	1	0	696	188	0	0	884	186	0	19	0	1	205	69	1215	0	0	0	1284	2374
Approach %	0%	100%	0%	0%	-	-	0%	79%	21%	0%	-	-	91%	0%	9%	0%	-	-	5%	95%	0%	0%	-	-	-
Total %	0%	0%	0%	0%	-	-	0%	29%	8%	0%	-	-	8%	0%	1%	0%	-	-	3%	51%	0%	0%	-	-	-
PHF	-	0.250	-	-	-	0.250	-	0.870	0.855	-	-	0.929	0.845	-	0.594	-	-	0.869	0.750	0.967	-	-	-	0.979	0.953
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	-	0	0
% Motorcycles	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0%
Cars	0	1	0	0	-	1	0	625	159	0	-	784	150	0	14	0	-	164	58	991	0	-	-	1049	1998
% Cars	0.0%	100.0%	0.0%	0.0%	-	100.0%	0.0%	89.8%	84.6%	0.0%	-	88.7%	80.6%	0.0%	73.7%	0.0%	-	80.0%	84.1%	81.6%	0.0%	-	-	81.7%	84%
Light Goods Vehicles	0	0	0	0	-	0	0	57	26	0	-	83	29	0	5	0	-	34	11	202	0	-	-	213	330
% Light Goods Vehicles	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	8.2%	13.8%	0.0%	-	9.4%	15.6%	0.0%	26.3%	0.0%	-	16.6%	15.9%	16.6%	0.0%	-	-	16.6%	14%
Buses	0	0	0	0	-	0	0	8	2	0	-	10	7	0	0	0	-	7	0	9	0	-	-	9	26
% Buses	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.1%	1.1%	0.0%	-	1.1%	3.8%	0.0%	0.0%	0.0%	-	3.4%	0.0%	0.7%	0.0%	-	-	0.7%	1%
Single-Unit Trucks	0	0	0	0	-	0	0	6	1	0	-	7	0	0	0	0	-	0	0	12	0	-	-	12	19
% Single-Unit Trucks	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.9%	0.5%	0.0%	-	0.8%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	1.0%	0.0%	-	-	0.9%	1%
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	-	-	1	1
% Articulated Trucks	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	0.0%	-	-	0.1%	0%
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	-	-	0	0
% Bicycles on Road	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	100.0%	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	-	-	-
% Pedestrians	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	-	-	-

Halifax Regional Municipality
Traffic Management
Traffic and Right of Way
PO Box 1749 Halifax
Nova Scotia
B3J 3A5

Site Code: Main St at Ridgecrest Dr
Start Date: 2022-11-16

Parking Lot		
Out	In	Total
0	0	0
1	0	1
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
1	**0**	**1**

0	0	0	0	-
0	1	0	0	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	**1**	**0**	**0**	**0**
R	T	L	U	P

PM Peak Hour Data

Start Time: 3:45 PM
End Time: 4:45 PM
Date: 2022-11-16

Motorcycles
Cars
Light Goods
Buses
Single-Unit Trucks
Articulated Trucks
Bicycles on Road
Total

Main St		
Out	In	Total
0	0	0
1049	639	1688
213	62	275
9	8	17
12	6	18
1	0	1
0	0	0
1284	**715**	**1999**

-	-	-	-	**0**	U
0	0	0	0	**0**	L
0	991	202	9	**1215**	T
0	58	11	0	**69**	R
-	-	-	-	**0**	P

R	**0**	0	0	0	0
T	**696**	0	0	6	0
L	**188**	0	0	1	0
U	**0**	0	0	0	0
P	**0**	-	-	-	-

0	0	0	0	0	R
0	0	0	0	0	T
0	0	0	0	0	L
0	0	0	0	0	U
-	-	-	-	-	P

0	0	0	0	0	R
0	625	57	8	2	T
0	159	26	2	1	L
0	0	0	0	0	U
-	-	-	-	-	P

Main St		
Out	In	Total
0	0	0
1925	1141	784
314	231	83
26	16	10
19	12	7
1	1	0
0	0	0
2285	**1401**	**884**

U	L	T	R	P
0	0	0	0	-
0	14	0	150	-
0	5	0	29	-
0	0	0	7	-
0	0	0	0	-
0	0	0	0	-
0	0	0	0	-
0	**19**	**0**	**186**	**1**

0	0	0
164	218	382
34	37	71
7	2	9
0	1	1
0	0	0
0	0	0
205	**258**	**463**
Out	In	Total
Ridgecrest Dr		

Halifax Regional Municipality

Traffic Management

Traffic and Right of Way

PO Box 1749 Halifax

Nova Scotia

B3J 3A5

Site Code: Forest Hills Pkwy at Main St
Start Date: 2022-11-15

Turning Movement Data - 6 Hour Traffic Count

	Forest Hills Pkwy Southbound						Main St Westbound						Forest Hills Pkwy Northbound						Main St Eastbound						
Start Time	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	Int. Total
7:00:00 AM	5	16	23	0	0	44	130	242	10	0	0	382	14	107	95	0	1	216	19	61	33	0	0	113	755
7:15:00 AM	7	20	39	0	1	66	93	223	12	0	0	328	14	95	126	0	0	235	30	69	20	0	2	119	748
7:30:00 AM	12	31	41	0	0	84	110	203	11	0	0	324	19	114	122	0	0	255	27	103	23	0	1	153	816
7:45:00 AM	12	31	54	0	0	97	97	199	6	0	0	302	26	122	148	0	2	296	42	97	30	0	1	169	864
Hourly Total	36	98	157	0	1	291	430	867	39	0	0	1336	73	438	491	0	3	1002	118	330	106	0	4	554	3183
8:00:00 AM	10	25	51	0	0	86	86	175	17	0	0	278	31	102	104	0	0	237	37	95	29	0	1	161	762
8:15:00 AM	11	41	40	0	1	92	62	198	20	0	0	280	33	99	97	0	1	229	38	97	32	1	0	168	769
8:30:00 AM	12	39	60	0	0	111	81	201	22	0	0	304	25	87	101	0	0	213	47	92	18	0	0	157	785
8:45:00 AM	10	41	39	0	0	90	95	172	28	0	0	295	19	78	64	0	0	161	61	118	19	0	0	198	744
Hourly Total	43	146	190	0	1	379	324	746	87	0	0	1157	108	366	366	0	1	840	183	402	98	1	1	684	3060
2:00:00 PM	9	48	67	0	2	124	52	133	41	0	0	226	35	37	64	0	2	136	64	189	12	0	2	265	751
2:15:00 PM	6	42	71	0	1	119	64	161	40	0	0	265	39	45	61	0	1	145	59	147	11	0	0	217	746
2:30:00 PM	10	41	68	0	0	119	43	126	48	0	0	217	30	51	62	0	2	143	62	179	16	0	1	257	736
2:45:00 PM	8	52	81	0	1	141	56	178	36	0	0	270	35	36	73	0	1	144	72	164	6	0	1	242	797
Hourly Total	33	183	287	0	4	503	215	598	165	0	0	978	139	169	260	0	6	568	257	679	45	0	4	981	3030
3:00:00 PM	8	66	80	0	0	154	82	133	42	0	0	257	30	39	37	0	0	106	77	249	14	0	0	340	857
3:15:00 PM	10	57	106	0	0	173	54	140	36	0	0	230	38	54	40	0	0	132	82	218	20	0	0	320	855
3:30:00 PM	11	72	136	0	1	219	78	164	31	0	0	273	34	43	48	0	2	125	83	239	10	0	1	332	949
3:45:00 PM	13	66	123	0	0	202	63	126	34	0	0	223	37	53	42	0	2	132	86	282	14	0	0	382	939
Hourly Total	42	261	445	0	1	748	277	563	143	0	0	983	139	189	167	0	4	495	328	988	58	0	1	1374	3600
4:00:00 PM	17	91	146	0	1	254	68	147	36	0	0	251	39	55	49	0	1	143	94	269	8	0	2	371	1019
4:15:00 PM	27	78	143	0	0	248	59	122	48	0	0	229	31	50	48	0	0	129	102	316	7	0	0	425	1031
4:30:00 PM	18	81	144	0	0	243	58	122	41	0	0	221	32	56	49	0	1	137	93	267	11	0	0	371	972
4:45:00 PM	26	84	143	0	0	253	39	126	34	0	0	199	38	51	57	0	2	146	96	289	8	0	0	393	991
Hourly Total	88	334	576	0	1	998	224	517	159	0	0	900	140	212	203	0	4	555	385	1141	34	0	2	1560	4013
5:00:00 PM	20	78	125	0	0	223	51	95	34	0	0	180	38	44	53	0	3	135	115	269	12	0	1	396	934
5:15:00 PM	20	84	157	0	0	261	60	130	47	0	0	237	25	40	47	0	0	112	76	271	7	0	0	354	964
5:30:00 PM	12	74	138	0	1	224	46	94	42	0	1	182	28	42	49	0	1	119	95	237	8	0	0	340	865
5:45:00 PM	13	77	140	0	0	230	38	107	47	0	0	192	17	48	68	0	0	133	103	193	4	0	0	300	855
Hourly Total	65	313	560	0	1	938	195	426	170	0	1	791	108	174	217	0	4	499	389	970	31	0	1	1390	3618
Grand Total	307	1335	2215	0	9	3857	1665	3717	763	0	1	6145	707	1548	1704	0	22	3959	1660	4510	372	1	13	6543	20504
Approach %	8%	35%	57%	0%	-	-	27%	60%	12%	0%	-	-	18%	39%	43%	0%	-	-	25%	69%	6%	0%	-	-	-
Total %	1%	7%	11%	0%	-	-	8%	18%	4%	0%	-	-	3%	8%	8%	0%	-	-	8%	22%	2%	0%	-	-	-
Motorcycles	0	0	0	0	-	-	0	1	1	0	-	-	0	1	0	0	-	-	0	2	0	0	-	-	5
% Motorcycles	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.0%	0.1%	0.0%	-	-	0.0%	0.1%	0.0%	0.0%	-	-	0.0%	0.0%	0.0%	0.0%	-	-	0%
Cars	271	1022	1549	0	-	-	1117	3283	656	0	-	-	667	1251	1514	0	-	-	1437	3657	274	1	-	-	16699
% Cars	88.3%	76.6%	69.9%	0.0%	-	-	67.1%	88.3%	86.0%	0.0%	-	-	94.3%	80.8%	88.8%	0.0%	-	-	86.6%	81.1%	73.7%	100.0%	-	-	81%
Light Goods Vehicles	26	269	487	0	-	-	396	319	78	0	-	-	18	236	155	0	-	-	190	730	71	0	-	-	2975
% Light Goods Vehicles	8.5%	20.1%	22.0%	0.0%	-	-	23.8%	8.6%	10.2%	0.0%	-	-	2.5%	15.2%	9.1%	0.0%	-	-	11.4%	16.2%	19.1%	0.0%	-	-	15%
Buses	2	8	12	0	-	-	15	50	14	0	-	-	13	13	14	0	-	-	17	47	4	0	-	-	209
% Buses	0.7%	0.6%	0.5%	0.0%	-	-	0.9%	1.3%	1.8%	0.0%	-	-	1.8%	0.8%	0.8%	0.0%	-	-	1.0%	1.0%	1.1%	0.0%	-	-	1%
Single-Unit Trucks	6	32	140	0	-	-	113	53	13	0	-	-	8	43	20	0	-	-	14	61	16	0	-	-	519
% Single-Unit Trucks	2.0%	2.4%	6.3%	0.0%	-	-	6.8%	1.4%	1.7%	0.0%	-	-	1.1%	2.8%	1.2%	0.0%	-	-	0.8%	1.4%	4.3%	0.0%	-	-	3%
Articulated Trucks	2	4	27	0	-	-	24	8	1	0	-	-	1	4	1	0	-	-	2	9	7	0	-	-	90
% Articulated Trucks	0.7%	0.3%	1.2%	0.0%	-	-	1.4%	0.2%	0.1%	0.0%	-	-	0.1%	0.3%	0.1%	0.0%	-	-	0.1%	0.2%	1.9%	0.0%	-	-	0%
Bicycles on Road	0	0	0	0	-	-	0	3	0	0	-	-	0	0	0	0	-	-	0	4	0	0	-	-	7
% Bicycles on Road	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.1%	0.0%	0.0%	-	-	0.0%	0.0%	0.0%	0.0%	-	-	0.0%	0.1%	0.0%	0.0%	-	-	0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-
Pedestrians	-	-	-	-	9	-	-	-	-	-	1	-	-	-	-	-	22	-	-	-	-	-	13	-	-
% Pedestrians	-	-	-	-	100.0%	-	-	-	-	-	100.0%	-	-	-	-	-	100.0%	-	-	-	-	-	100.0%	-	-

Halifax Regional Municipality
Traffic Management
Traffic and Right of Way
PO Box 1749 Halifax
Nova Scotia
B3J 3A5

Site Code: Forest Hills Pkwy at Main St
Start Date: 2022-11-15

Turning Movement Peak Hour Data (7:30 AM)

	Forest Hills Pkwy Southbound						Main St Westbound						Forest Hills Pkwy Northbound						Main St Eastbound						
Start Time	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	Int. Total
7:30:00 AM	12	31	41	0	0	84	110	203	11	0	0	324	19	114	122	0	0	255	27	103	23	0	1	153	816
7:45:00 AM	12	31	54	0	0	97	97	199	6	0	0	302	26	122	148	0	2	296	42	97	30	0	1	169	864
8:00:00 AM	10	25	51	0	0	86	86	175	17	0	0	278	31	102	104	0	0	237	37	95	29	0	1	161	762
8:15:00 AM	11	41	40	0	1	92	62	198	20	0	0	280	33	99	97	0	1	229	38	97	32	1	0	168	769
Total	45	128	186	0	1	359	355	775	54	0	0	1184	109	437	471	0	3	1017	144	392	114	1	3	651	3211
Approach %	13%	36%	52%	0%	-	-	30%	65%	5%	0%	-	-	11%	43%	46%	0%	-	-	22%	60%	18%	0%	-	-	-
Total %	1%	4%	6%	0%	-	-	11%	24%	2%	0%	-	-	3%	14%	15%	0%	-	-	4%	12%	4%	0%	-	-	-
PHF	0.938	0.780	0.861	-	-	0.925	0.807	0.954	0.675	-	-	0.914	0.826	0.895	0.796	-	-	0.859	0.857	0.951	0.891	0.250	-	0.963	0.929
Motorcycles	0	0	0	0	-	0	0	1	0	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	2
% Motorcycles	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	0.0%	0.0%	-	0.1%	0.0%	0.2%	0.0%	0.0%	-	0.1%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0%
Cars	37	94	106	0	-	237	242	679	40	0	-	961	105	373	414	0	-	892	118	279	74	1	-	472	2562
% Cars	82.2%	73.4%	57.0%	0.0%	-	66.0%	68.2%	87.6%	74.1%	0.0%	-	81.2%	96.3%	85.4%	87.9%	0.0%	-	87.7%	81.9%	71.2%	64.9%	100.0%	-	72.5%	80%
Light Goods Vehicles	4	29	43	0	-	76	87	68	8	0	-	163	3	58	45	0	-	106	20	88	36	0	-	144	489
% Light Goods Vehicles	8.9%	22.7%	23.1%	0.0%	-	21.2%	24.5%	8.8%	14.8%	0.0%	-	13.8%	2.8%	13.3%	9.6%	0.0%	-	10.4%	13.9%	22.4%	31.6%	0.0%	-	22.1%	15%
Buses	1	0	0	0	-	1	1	10	3	0	-	14	1	2	6	0	-	9	3	6	0	0	-	9	33
% Buses	2.2%	0.0%	0.0%	0.0%	-	0.3%	0.3%	1.3%	5.6%	0.0%	-	1.2%	0.9%	0.5%	1.3%	0.0%	-	0.9%	2.1%	1.5%	0.0%	0.0%	-	1.4%	1%
Single-Unit Trucks	1	4	31	0	-	36	23	14	3	0	-	40	0	3	6	0	-	9	2	15	3	0	-	20	105
% Single-Unit Trucks	2.2%	3.1%	16.7%	0.0%	-	10.0%	6.5%	1.8%	5.6%	0.0%	-	3.4%	0.0%	0.7%	1.3%	0.0%	-	0.9%	1.4%	3.8%	2.6%	0.0%	-	3.1%	3%
Articulated Trucks	2	1	6	0	-	9	2	2	0	0	-	4	0	0	0	0	-	0	1	4	1	0	-	6	19
% Articulated Trucks	4.4%	0.8%	3.2%	0.0%	-	2.5%	0.6%	0.3%	0.0%	0.0%	-	0.3%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.7%	1.0%	0.9%	0.0%	-	0.9%	1%
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	0.0%	0.0%	-	0.1%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0%	-	-	-	-	-	0.0%	-	-	-	-	-	100.0%	-	-	-	-	-	100.0%	-	-

Halifax Regional Municipality

Traffic Management

Traffic and Right of Way

PO Box 1749 Halifax

Nova Scotia

B3J 3A5

Site Code: Forest Hills Pkwy at Main St

Start Date: 2022-11-15

Forest Hills Pkwy		
Out	In	Total
0	1	1
237	689	926
76	181	257
1	3	4
36	29	65
9	3	12
0	0	0
359	**906**	**1265**

0	0	0	0	-
37	94	106	0	-
4	29	43	0	-
1	0	0	0	-
1	4	31	0	-
2	1	6	0	-
0	0	0	0	-
45	**128**	**186**	**0**	**1**
R	T	L	U	P

Main St		
Out	In	Total
1	1	2
4	10	14
40	46	86
14	7	21
163	134	297
961	490	1451
1184	**687**	**1871**

R	**355**	0	2	23	1	87	242	0	
T	**775**	1	2	14	10	68	679	1	
L	**54**	0	0	3	3	8	40	0	
U	**0**	0	0	0	0	0	0	0	
P	**0**	-	-	-	-	-	-	-	

Main St		
Out	In	Total
0	1	1
472	1130	1602
144	117	261
9	17	26
20	21	41
6	4	10
0	1	1
651	**1292**	**1943**

U	**1**	0	0	0	0	0	1	0	
T	**114**	0	1	0	3	0	74	0	
R	**392**	0	279	88	6	15	4	0	
P	**144**	0	118	20	3	2	1	0	
	3	-	-	-	-	-	-	-	

AM Peak Hour Data

Start Time: 7:30 AM

End Time: 8:30 AM

Date: 2022-11-15

Motorcycles
Cars
Light Goods
Buses
Single-Unit Trucks
Articulated Trucks
Bicycles on Road
Total

U	L	T	R	P
0	0	1	0	-
0	414	373	105	-
0	45	58	3	-
0	6	2	1	-
0	6	3	0	-
0	0	0	0	-
0	0	0	0	-
0	**471**	**437**	**109**	**3**

1	0	1
892	252	1144
106	57	163
9	6	15
9	9	18
0	2	2
0	0	0
1017	**326**	**1343**
Out	In	Total
Forest Hills Pkwy		

Halifax Regional Municipality
Traffic Management
Traffic and Right of Way
PO Box 1749 Halifax
Nova Scotia
B3J 3A5

Site Code: Forest Hills Pkwy at Main St
Start Date: 2022-11-15

Turning Movement Peak Hour Data (4:00 PM)

	Forest Hills Pkwy Southbound						Main St Westbound						Forest Hills Pkwy Northbound						Main St Eastbound						
Start Time	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	Int. Total
4:00:00 PM	17	91	146	0	1	254	68	147	36	0	0	251	39	55	49	0	1	143	94	269	8	0	2	371	1019
4:15:00 PM	27	78	143	0	0	248	59	122	48	0	0	229	31	50	48	0	0	129	102	316	7	0	0	425	1031
4:30:00 PM	18	81	144	0	0	243	58	122	41	0	0	221	32	56	49	0	1	137	93	267	11	0	0	371	972
4:45:00 PM	26	84	143	0	0	253	39	126	34	0	0	199	38	51	57	0	2	146	96	289	8	0	0	393	991
Total	88	334	576	0	1	998	224	517	159	0	0	900	140	212	203	0	4	555	385	1141	34	0	2	1560	4013
Approach %	9%	33%	58%	0%	-	-	25%	57%	18%	0%	-	-	25%	38%	37%	0%	-	-	25%	73%	2%	0%	-	-	-
Total %	2%	8%	14%	0%	-	-	6%	13%	4%	0%	-	-	3%	5%	5%	0%	-	-	10%	28%	1%	0%	-	-	-
PHF	0.815	0.918	0.986	-	-	0.982	0.824	0.879	0.828	-	-	0.896	0.897	0.946	0.890	-	-	0.950	0.944	0.903	0.773	-	-	0.918	0.973
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0%
Cars	78	273	410	0	-	761	142	471	143	0	-	756	125	158	190	0	-	473	328	1005	25	0	-	1358	3348
% Cars	88.6%	81.7%	71.2%	0.0%	-	76.3%	63.4%	91.1%	89.9%	0.0%	-	84.0%	89.3%	74.5%	93.6%	0.0%	-	85.2%	85.2%	88.1%	73.5%	0.0%	-	87.1%	83%
Light Goods Vehicles	9	54	135	0	-	198	59	31	12	0	-	102	8	43	13	0	-	64	54	113	5	0	-	172	536
% Light Goods Vehicles	10.2%	16.2%	23.4%	0.0%	-	19.8%	26.3%	6.0%	7.5%	0.0%	-	11.3%	5.7%	20.3%	6.4%	0.0%	-	11.5%	14.0%	9.9%	14.7%	0.0%	-	11.0%	13%
Buses	0	3	8	0	-	11	1	9	3	0	-	13	4	6	0	0	-	10	2	12	2	0	-	16	50
% Buses	0.0%	0.9%	1.4%	0.0%	-	1.1%	0.4%	1.7%	1.9%	0.0%	-	1.4%	2.9%	2.8%	0.0%	0.0%	-	1.8%	0.5%	1.1%	5.9%	0.0%	-	1.0%	1%
Single-Unit Trucks	1	4	19	0	-	24	21	5	1	0	-	27	2	5	0	0	-	7	1	10	2	0	-	13	71
% Single-Unit Trucks	1.1%	1.2%	3.3%	0.0%	-	2.4%	9.4%	1.0%	0.6%	0.0%	-	3.0%	1.4%	2.4%	0.0%	0.0%	-	1.3%	0.3%	0.9%	5.9%	0.0%	-	0.8%	2%
Articulated Trucks	0	0	4	0	-	4	1	1	0	0	-	2	1	0	0	0	-	1	0	0	0	0	-	0	7
% Articulated Trucks	0.0%	0.0%	0.7%	0.0%	-	0.4%	0.4%	0.2%	0.0%	0.0%	-	0.2%	0.7%	0.0%	0.0%	0.0%	-	0.2%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0%
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
% Bicycles on Road	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	-	0.0%	0.0%	0.1%	0.0%	0.0%	-	0.1%	0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-	-	-	-	0.0%	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	100.0%	-	-	-	-	-	0.0%	-	-	-	-	-	100.0%	-	-	-	-	-	100.0%	-	-

Halifax Regional Municipality
Traffic Management
Traffic and Right of Way
PO Box 1749 Halifax
Nova Scotia
B3J 3A5

Site Code: Forest Hills Pkwy at Main St
Start Date: 2022-11-15

PM Peak Hour Data

Start Time: 4:00 PM
End Time: 5:00 PM
Date: 2022-11-15

Forest Hills Pkwy (north leg)

Class	Out	In	Total
Motorcycles	0	0	0
Cars	761	325	1086
Light Goods	198	107	305
Buses	11	9	20
Single-Unit Trucks	24	28	52
Articulated Trucks	4	2	6
Bicycles on Road	0	0	0
Total	**998**	**470**	**1468**

Forest Hills Pkwy (southbound approach)

Class	R	T	L	U	P
Motorcycles	0	0	0	0	-
Cars	78	273	410	0	-
Light Goods	9	54	135	0	-
Buses	0	3	8	0	-
Single-Unit Trucks	1	4	19	0	-
Articulated Trucks	0	0	4	0	-
Bicycles on Road	0	0	0	0	-
Total	**88**	**334**	**576**	**0**	**1**

Main St (west leg)

Class	Total	In	Out
Motorcycles	0	0	0
Cars	2097	739	1358
Light Goods	225	53	172
Buses	25	9	16
Single-Unit Trucks	19	6	13
Articulated Trucks	1	1	0
Bicycles on Road	1	0	1
Total	**2368**	**808**	**1560**

Main St (eastbound approach)

Class	U	L	T	R	P
Motorcycles	0	0	0	0	-
Cars	0	25	1005	328	-
Light Goods	0	5	113	54	-
Buses	0	2	12	2	-
Single-Unit Trucks	0	2	10	1	-
Articulated Trucks	0	0	0	0	-
Bicycles on Road	0	0	1	0	-
Total	**0**	**34**	**1141**	**385**	**2**

Main St (westbound approach)

Class	R	T	L	U	P
Motorcycles	0	0	0	0	-
Cars	142	471	143	0	-
Light Goods	59	31	12	0	-
Buses	1	9	3	0	-
Single-Unit Trucks	21	5	1	0	-
Articulated Trucks	1	1	0	0	-
Bicycles on Road	0	0	0	0	-
Total	**224**	**517**	**159**	**0**	**0**

Main St (east leg)

Class	Out	In	Total
Motorcycles	0	0	0
Cars	756	1540	2296
Light Goods	102	256	358
Buses	13	24	37
Single-Unit Trucks	27	31	58
Articulated Trucks	2	5	7
Bicycles on Road	0	1	1
Total	**900**	**1857**	**2757**

Forest Hills Pkwy (northbound approach)

Class	U	L	T	R	P
Motorcycles	0	0	0	0	-
Cars	0	190	158	125	-
Light Goods	0	13	43	8	-
Buses	0	0	6	4	-
Single-Unit Trucks	0	0	5	2	-
Articulated Trucks	0	0	0	1	-
Bicycles on Road	0	0	0	0	-
Total	**0**	**203**	**212**	**140**	**4**

Forest Hills Pkwy (south leg)

Class	Out	In	Total
Motorcycles	0	0	0
Cars	473	744	1217
Light Goods	64	120	184
Buses	10	8	18
Single-Unit Trucks	7	6	13
Articulated Trucks	1	0	1
Bicycles on Road	0	0	0
Total	**555**	**878**	**1433**

Halifax Regional Municipality - Transportation Planning
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(786) 641-3878 Hannah.McBride@halifax.ca

Count Name: 24RQ714
Site Code: Main St at Forest Hills Pkwy
Start Date: 11-07-2024

Turning Movement Data

Start Time	Forest Hills Pkwy Southbound						Main St Westbound						Forest Hills Pkwy Northbound						Main St 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	
7:00 AM	5	20	31	0	0	56	84	236	10	0	0	330	22	118	104	0	2	244	25	65	12	0	0	102	732
7:15 AM	10	23	36	0	0	69	87	230	14	0	0	331	17	103	115	0	0	235	26	95	24	0	0	145	780
7:30 AM	11	26	56	0	0	93	73	220	6	0	0	299	20	117	136	0	1	273	43	102	38	0	0	183	848
7:45 AM	24	36	40	0	0	100	77	227	25	0	0	329	32	116	108	0	0	256	41	112	28	0	0	181	866
Hourly Total	50	105	163	0	0	318	321	913	55	0	0	1289	91	454	463	0	3	1008	135	374	102	0	0	611	3226
8:00 AM	17	31	43	0	0	91	90	205	17	0	0	312	27	117	105	0	0	249	38	87	20	0	0	145	797
8:15 AM	20	32	47	0	0	99	82	203	22	0	0	307	30	103	120	0	0	253	41	110	19	0	0	170	829
8:30 AM	14	34	50	0	0	98	100	221	20	0	0	341	42	86	83	0	0	211	46	102	11	0	0	159	809
8:45 AM	12	25	32	0	0	69	97	207	41	0	0	345	36	62	71	0	1	169	50	141	15	0	0	206	789
Hourly Total	63	122	172	0	0	357	369	836	100	0	0	1305	135	368	379	0	1	882	175	440	65	0	0	680	3224
9:00 AM	9	34	57	0	2	100	88	191	25	0	0	304	26	56	66	0	3	148	53	104	11	0	0	168	720
9:15 AM	10	31	58	0	0	99	81	188	40	0	0	309	23	42	66	0	1	131	37	98	5	0	0	140	679
9:30 AM	9	29	47	0	0	85	84	178	43	0	0	305	42	46	60	0	0	148	35	137	14	0	1	186	724
9:45 AM	12	37	71	0	2	120	77	148	43	0	0	268	29	47	43	0	1	119	49	112	11	0	0	172	679
Hourly Total	40	131	233	0	4	404	330	705	151	0	0	1186	120	191	235	0	5	546	174	451	41	0	1	666	2802
10:00 AM	13	29	52	0	0	94	76	170	33	0	0	279	30	39	64	0	1	133	50	119	7	0	1	176	682
10:15 AM	10	34	51	0	0	95	93	146	40	0	0	279	34	41	40	0	0	115	46	120	9	0	1	175	664
10:30 AM	12	20	57	0	0	89	71	158	32	0	0	261	45	40	49	0	1	134	62	135	7	0	1	204	688
10:45 AM	13	33	51	0	0	97	58	157	36	0	0	251	33	44	61	0	0	138	55	123	12	0	1	190	676
Hourly Total	48	116	211	0	0	375	298	631	141	0	0	1070	142	164	214	0	2	520	213	497	35	0	4	745	2710
11:00 AM	12	25	47	0	0	84	48	158	36	0	0	242	33	47	56	0	1	136	54	147	11	1	3	213	675
11:15 AM	6	24	63	0	0	93	68	142	42	0	1	252	39	42	55	0	3	136	51	125	11	1	0	188	669
11:30 AM	14	33	65	0	0	112	69	146	46	0	0	261	36	35	65	0	2	136	65	166	13	0	1	244	753
11:45 AM	13	32	78	0	0	123	85	151	43	0	0	279	41	42	49	0	1	132	63	113	10	0	0	186	720
Hourly Total	45	114	253	0	0	412	270	597	167	0	1	1034	149	166	225	0	7	540	233	551	45	2	4	831	2817
12:00 PM	11	40	60	0	1	111	77	167	37	0	1	281	40	42	57	0	0	139	68	164	12	0	0	244	775
12:15 PM	17	48	79	0	0	144	67	164	36	0	0	267	65	49	49	0	0	163	49	137	5	0	0	191	765
12:30 PM	8	45	66	0	0	119	63	153	36	0	0	252	35	47	50	0	0	132	73	148	11	0	1	232	735
12:45 PM	7	34	92	0	0	133	49	129	24	0	0	202	56	37	47	0	0	140	57	167	14	0	0	238	713
Hourly Total	43	167	297	0	1	507	256	613	133	0	1	1002	196	175	203	0	0	574	247	616	42	0	1	905	2988
1:00 PM	9	42	52	0	1	103	71	133	41	0	0	245	43	57	51	0	0	151	55	169	11	0	0	235	734
1:15 PM	12	48	72	0	1	132	71	178	53	0	1	302	44	48	54	0	0	146	57	163	11	0	0	231	811
1:30 PM	9	41	77	0	1	127	63	148	35	0	0	246	57	41	61	0	0	159	45	169	16	0	0	230	762
1:45 PM	17	47	98	0	2	162	64	167	59	0	1	290	43	39	48	0	1	130	83	178	15	0	0	276	858
Hourly Total	47	178	299	0	5	524	269	626	188	0	2	1083	187	185	214	0	1	586	240	679	53	0	0	972	3165
2:00 PM	12	51	55	0	0	118	57	131	38	0	0	226	35	49	64	0	1	148	69	150	11	0	0	230	722
2:15 PM	15	56	101	0	0	172	55	139	45	0	0	239	51	31	68	0	0	150	77	162	7	0	0	246	807
2:30 PM	15	51	64	0	0	130	64	148	50	0	0	262	49	47	65	0	0	161	69	162	16	0	0	247	800

2:45 PM	17	42	97	0	1	156	99	125	39	0	0	263	47	33	45	0	3	125	61	193	15	0	1	269	813
Hourly Total	59	200	317	0	1	576	275	543	172	0	0	990	182	160	242	0	4	584	276	667	49	0	1	992	3142
3:00 PM	13	63	112	0	0	188	58	151	39	0	0	248	64	39	60	0	1	163	83	219	19	0	1	321	920
3:15 PM	5	61	115	0	0	181	92	174	44	0	0	310	58	67	49	0	1	174	75	227	18	0	0	320	985
3:30 PM	13	76	128	0	0	217	102	137	50	0	0	289	47	61	48	0	3	156	95	234	17	0	0	346	1008
3:45 PM	17	76	137	0	0	230	81	147	40	0	0	268	47	42	57	0	1	146	87	282	19	0	0	388	1032
Hourly Total	48	276	492	0	0	816	333	609	173	0	0	1115	216	209	214	0	6	639	340	962	73	0	1	1375	3945
4:00 PM	17	88	149	0	1	254	74	153	33	0	0	260	44	70	64	0	3	178	100	247	18	0	2	365	1057
4:15 PM	23	77	117	0	0	217	68	148	37	0	0	253	51	57	39	0	1	147	95	268	14	0	1	377	994
4:30 PM	24	82	130	0	0	236	51	129	42	0	0	222	45	44	61	0	0	150	114	269	14	0	1	397	1005
4:45 PM	13	89	144	0	1	246	45	139	40	0	0	224	44	56	37	0	1	137	101	272	11	0	1	384	991
Hourly Total	77	336	540	0	2	953	238	569	152	0	0	959	184	227	201	0	5	612	410	1056	57	0	5	1523	4047
5:00 PM	31	73	112	0	0	216	63	132	40	0	0	235	54	65	57	0	0	176	115	245	13	0	0	373	1000
5:15 PM	20	99	151	0	0	270	59	123	49	0	0	231	47	59	59	0	1	165	99	217	12	0	2	328	994
5:30 PM	28	72	92	0	0	192	55	144	45	0	0	244	57	45	55	0	0	157	118	259	12	0	0	389	982
5:45 PM	19	97	112	0	0	228	47	157	46	0	0	250	52	64	60	0	0	176	95	200	6	0	0	301	955
Hourly Total	98	341	467	0	0	906	224	556	180	0	0	960	210	233	231	0	1	674	427	921	43	0	2	1391	3931
6:00 PM	21	82	114	0	0	217	51	124	48	0	0	223	42	59	65	0	0	166	80	154	10	0	0	244	850
6:15 PM	12	56	97	0	0	165	41	132	38	0	0	211	56	39	39	0	2	134	73	161	6	0	0	240	750
6:30 PM	12	54	76	0	0	142	50	105	38	0	0	193	39	34	54	0	0	127	85	238	5	0	0	328	790
6:45 PM	15	53	84	0	0	152	38	104	40	0	0	182	48	34	50	0	0	132	77	169	7	0	0	253	719
Hourly Total	60	245	371	0	0	676	180	465	164	0	0	809	185	166	208	0	2	559	315	722	28	0	0	1065	3109
Grand Total	678	2331	3815	0	13	6824	3363	7663	1776	0	4	12802	1997	2698	3029	0	37	7724	3185	7936	633	2	19	11756	39106
Approach %	9.9	34.2	55.9	0.0	-	-	26.3	59.9	13.9	0.0	-	-	25.9	34.9	39.2	0.0	-	-	27.1	67.5	5.4	0.0	-	-	-
Total %	1.7	6.0	9.8	0.0	-	17.5	8.6	19.6	4.5	0.0	-	32.7	5.1	6.9	7.7	0.0	-	19.8	8.1	20.3	1.6	0.0	-	30.1	-
Motorcycles	0	1	2	0	-	3	2	6	0	0	-	8	3	1	4	0	-	8	9	12	1	0	-	22	41
% Motorcycles	0.0	0.0	0.1	-	-	0.0	0.1	0.1	0.0	-	-	0.1	0.2	0.0	0.1	-	-	0.1	0.3	0.2	0.2	0.0	-	0.2	0.1
Cars & Light Goods	641	2261	3487	0	-	6389	3064	7412	1728	0	-	12204	1931	2609	2974	0	-	7514	3112	7683	604	2	-	11401	37508
% Cars & Light Goods	94.5	97.0	91.4	-	-	93.6	91.1	96.7	97.3	-	-	95.3	96.7	96.7	98.2	-	-	97.3	97.7	96.8	95.4	100.0	-	97.0	95.9
Buses	7	16	32	0	-	55	36	64	25	0	-	125	22	23	25	0	-	70	29	57	6	0	-	92	342
% Buses	1.0	0.7	0.8	-	-	0.8	1.1	0.8	1.4	-	-	1.0	1.1	0.9	0.8	-	-	0.9	0.9	0.7	0.9	0.0	-	0.8	0.9
Single-Unit Trucks	27	47	271	0	-	345	221	167	21	0	-	409	34	53	21	0	-	108	27	158	20	0	-	205	1067
% Single-Unit Trucks	4.0	2.0	7.1	-	-	5.1	6.6	2.2	1.2	-	-	3.2	1.7	2.0	0.7	-	-	1.4	0.8	2.0	3.2	0.0	-	1.7	2.7
Articulated Trucks	3	6	23	0	-	32	39	13	2	0	-	54	7	12	3	0	-	22	8	24	2	0	-	34	142
% Articulated Trucks	0.4	0.3	0.6	-	-	0.5	1.2	0.2	0.1	-	-	0.4	0.4	0.4	0.1	-	-	0.3	0.3	0.3	0.3	0.0	-	0.3	0.4
Bicycles on Road	0	0	0	0	-	0	1	1	0	0	-	2	0	0	2	0	-	2	0	2	0	0	-	2	6
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.1	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	10	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	7.7	-	-	-	-	-	25.0	-	-	-	-	-	27.0	-	-	-	-	-	5.3	-	-
Pedestrians	-	-	-	-	12	-	-	-	-	-	3	-	-	-	-	-	27	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	92.3	-	-	-	-	-	75.0	-	-	-	-	-	73.0	-	-	-	-	-	94.7	-	-

Halifax Regional Municipality - Transportation Planning
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(786) 641-3878 Hannah.McBride@halifax.ca

Count Name: 24RQ714
Site Code: Main St at Forest Hills Pkwy
Start Date: 11-07-2024

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Forest Hills Pkwy Southbound						Main St Westbound						Forest Hills Pkwy Northbound						Main St 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	
7:30 AM	11	26	56	0	0	93	73	220	6	0	0	299	20	117	136	0	1	273	43	102	38	0	0	183	848
7:45 AM	24	36	40	0	0	100	77	227	25	0	0	329	32	116	108	0	0	256	41	112	28	0	0	181	866
8:00 AM	17	31	43	0	0	91	90	205	17	0	0	312	27	117	105	0	0	249	38	87	20	0	0	145	797
8:15 AM	20	32	47	0	0	99	82	203	22	0	0	307	30	103	120	0	0	253	41	110	19	0	0	170	829
Total	72	125	186	0	0	383	322	855	70	0	0	1247	109	453	469	0	1	1031	163	411	105	0	0	679	3340
Approach %	18.8	32.6	48.6	0.0	-	-	25.8	68.6	5.6	0.0	-	-	10.6	43.9	45.5	0.0	-	-	24.0	60.5	15.5	0.0	-	-	-
Total %	2.2	3.7	5.6	0.0	-	11.5	9.6	25.6	2.1	0.0	-	37.3	3.3	13.6	14.0	0.0	-	30.9	4.9	12.3	3.1	0.0	-	20.3	-
PHF	0.750	0.868	0.830	0.000	-	0.958	0.894	0.942	0.700	0.000	-	0.948	0.852	0.968	0.862	0.000	-	0.944	0.948	0.917	0.691	0.000	-	0.928	0.964
Motorcycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Motorcycles	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Cars & Light Goods	69	123	158	0	-	350	297	826	64	0	-	1187	104	448	460	0	-	1012	156	391	100	0	-	647	3196
% Cars & Light Goods	95.8	98.4	84.9	-	-	91.4	92.2	96.6	91.4	-	-	95.2	95.4	98.9	98.1	-	-	98.2	95.7	95.1	95.2	-	-	95.3	95.7
Buses	0	0	0	0	-	0	2	10	2	0	-	14	2	2	4	0	-	8	4	6	0	0	-	10	32
% Buses	0.0	0.0	0.0	-	-	0.0	0.6	1.2	2.9	-	-	1.1	1.8	0.4	0.9	-	-	0.8	2.5	1.5	0.0	-	-	1.5	1.0
Single-Unit Trucks	2	2	26	0	-	30	20	18	4	0	-	42	3	2	3	0	-	8	2	10	3	0	-	15	95
% Single-Unit Trucks	2.8	1.6	14.0	-	-	7.8	6.2	2.1	5.7	-	-	3.4	2.8	0.4	0.6	-	-	0.8	1.2	2.4	2.9	-	-	2.2	2.8
Articulated Trucks	1	0	2	0	-	3	3	1	0	0	-	4	0	1	1	0	-	2	1	4	2	0	-	7	16
% Articulated Trucks	1.4	0.0	1.1	-	-	0.8	0.9	0.1	0.0	-	-	0.3	0.0	0.2	0.2	-	-	0.2	0.6	1.0	1.9	-	-	1.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.2	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-

Halifax Regional Municipality - Transportation Planning
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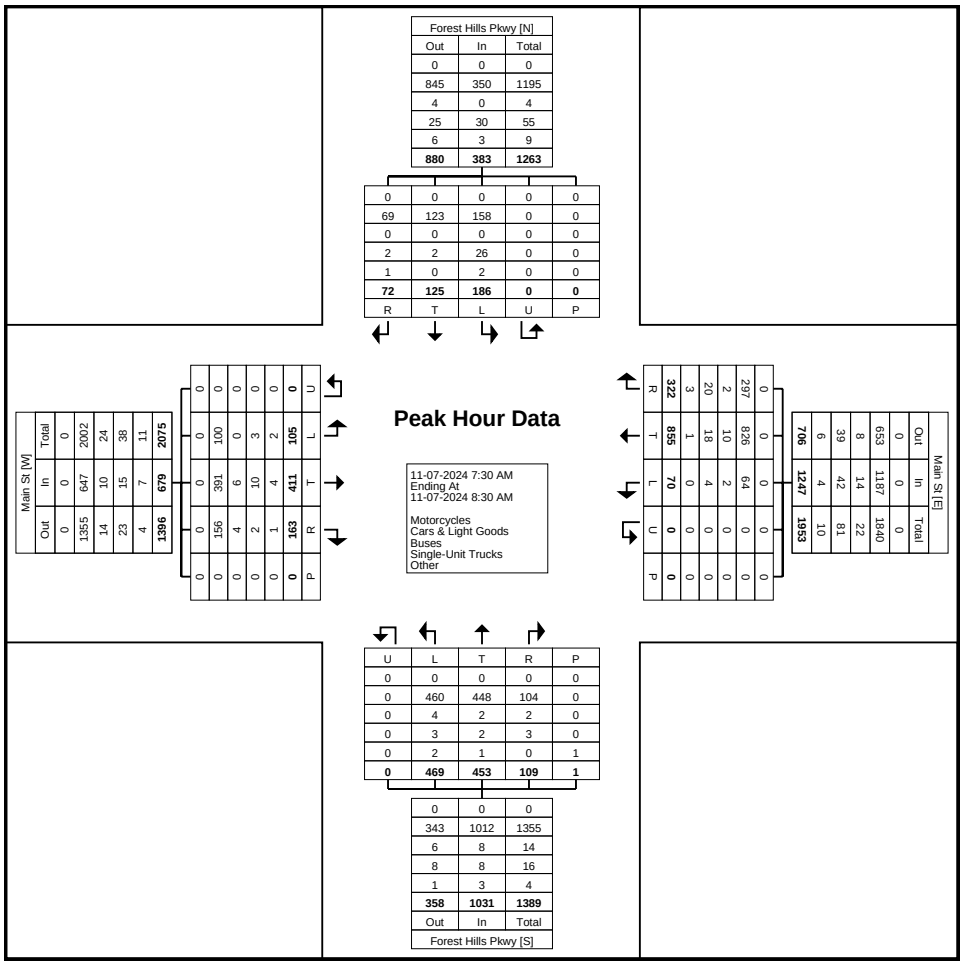
Count Name: 24RQ714
Site Code: Main St at Forest Hills Pkwy
Start Date: 11-07-2024



Turning Movement Peak Hour Data Plot (7:30 AM)

Halifax Regional Municipality - Transportation Planning
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(786) 641-3878 Hannah.McBride@halifax.ca

Count Name: 24RQ714
Site Code: Main St at Forest Hills Pkwy
Start Date: 11-07-2024

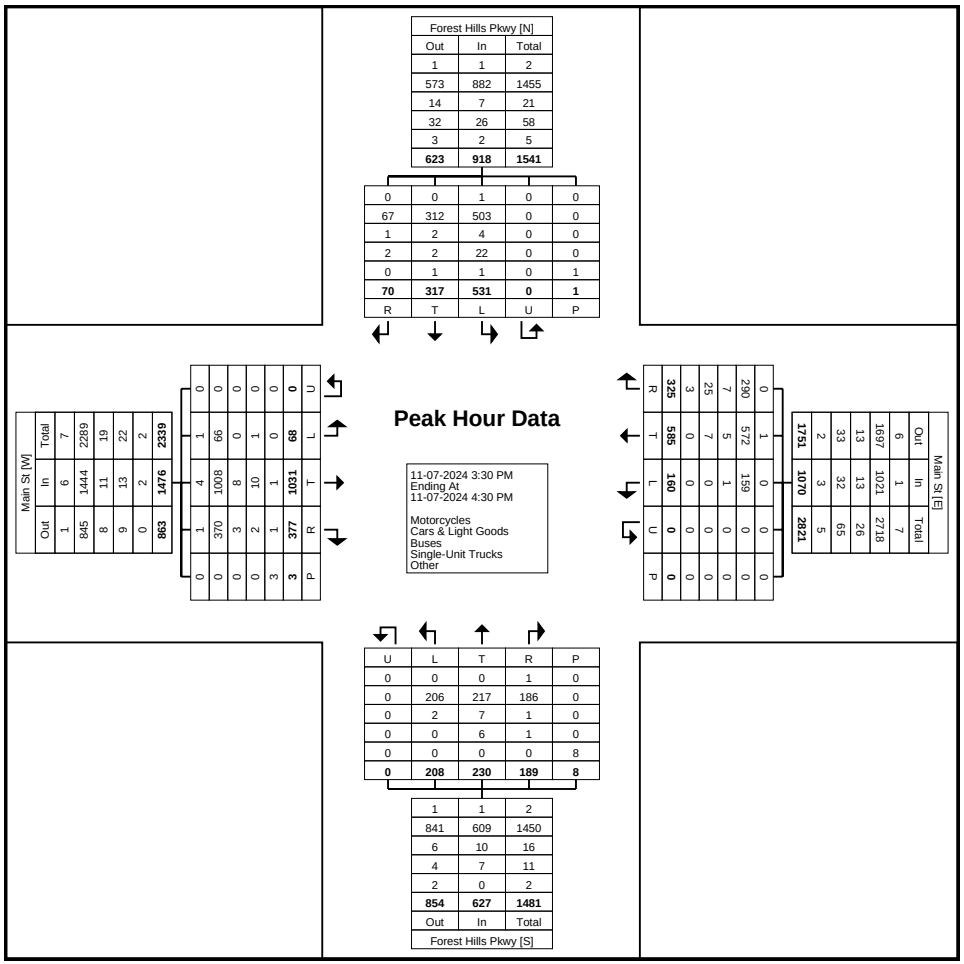
Turning Movement Peak Hour Data (3:30 PM)

Start Time	Forest Hills Pkwy Southbound						Main St Westbound						Forest Hills Pkwy Northbound						Main St 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	
3:30 PM	13	76	128	0	0	217	102	137	50	0	0	289	47	61	48	0	3	156	95	234	17	0	0	346	1008
3:45 PM	17	76	137	0	0	230	81	147	40	0	0	268	47	42	57	0	1	146	87	282	19	0	0	388	1032
4:00 PM	17	88	149	0	1	254	74	153	33	0	0	260	44	70	64	0	3	178	100	247	18	0	2	365	1057
4:15 PM	23	77	117	0	0	217	68	148	37	0	0	253	51	57	39	0	1	147	95	268	14	0	1	377	994
Total	70	317	531	0	1	918	325	585	160	0	0	1070	189	230	208	0	8	627	377	1031	68	0	3	1476	4091
Approach %	7.6	34.5	57.8	0.0	-	-	30.4	54.7	15.0	0.0	-	-	30.1	36.7	33.2	0.0	-	-	25.5	69.9	4.6	0.0	-	-	-
Total %	1.7	7.7	13.0	0.0	-	22.4	7.9	14.3	3.9	0.0	-	26.2	4.6	5.6	5.1	0.0	-	15.3	9.2	25.2	1.7	0.0	-	36.1	-
PHF	0.761	0.901	0.891	0.000	-	0.904	0.797	0.956	0.800	0.000	-	0.926	0.926	0.821	0.813	0.000	-	0.881	0.943	0.914	0.895	0.000	-	0.951	0.968
Motorcycles	0	0	1	0	-	1	0	1	0	0	-	1	1	0	0	0	-	1	1	4	1	0	-	6	9
% Motorcycles	0.0	0.0	0.2	-	-	0.1	0.0	0.2	0.0	-	-	0.1	0.5	0.0	0.0	-	-	0.2	0.3	0.4	1.5	-	-	0.4	0.2
Cars & Light Goods	67	312	503	0	-	882	290	572	159	0	-	1021	186	217	206	0	-	609	370	1008	66	0	-	1444	3956
% Cars & Light Goods	95.7	98.4	94.7	-	-	96.1	89.2	97.8	99.4	-	-	95.4	98.4	94.3	99.0	-	-	97.1	98.1	97.8	97.1	-	-	97.8	96.7
Buses	1	2	4	0	-	7	7	5	1	0	-	13	1	7	2	0	-	10	3	8	0	0	-	11	41
% Buses	1.4	0.6	0.8	-	-	0.8	2.2	0.9	0.6	-	-	1.2	0.5	3.0	1.0	-	-	1.6	0.8	0.8	0.0	-	-	0.7	1.0
Single-Unit Trucks	2	2	22	0	-	26	25	7	0	0	-	32	1	6	0	0	-	7	2	10	1	0	-	13	78
% Single-Unit Trucks	2.9	0.6	4.1	-	-	2.8	7.7	1.2	0.0	-	-	3.0	0.5	2.6	0.0	-	-	1.1	0.5	1.0	1.5	-	-	0.9	1.9
Articulated Trucks	0	1	1	0	-	2	3	0	0	0	-	3	0	0	0	0	-	0	1	1	0	0	-	2	7
% Articulated Trucks	0.0	0.3	0.2	-	-	0.2	0.9	0.0	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.3	0.1	0.0	-	-	0.1	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	25.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	75.0	-	-	-	-	-	100.0	-	-

Halifax Regional Municipality - Transportation Planning
PO Box 1749

Halifax, Nova Scotia, Canada B3J 3A5
(786) 641-3878 Hannah.McBride@halifax.ca

Count Name: 24RQ714
Site Code: Main St at Forest Hills Pkwy
Start Date: 11-07-2024



Turning Movement Peak Hour Data Plot (3:30 PM)

AM - Main and Forest Hills - TMC

Provided by: Trans4m Development Group
59 Craigburn Drive, Dartmouth, NS, B2X 3E6, CA

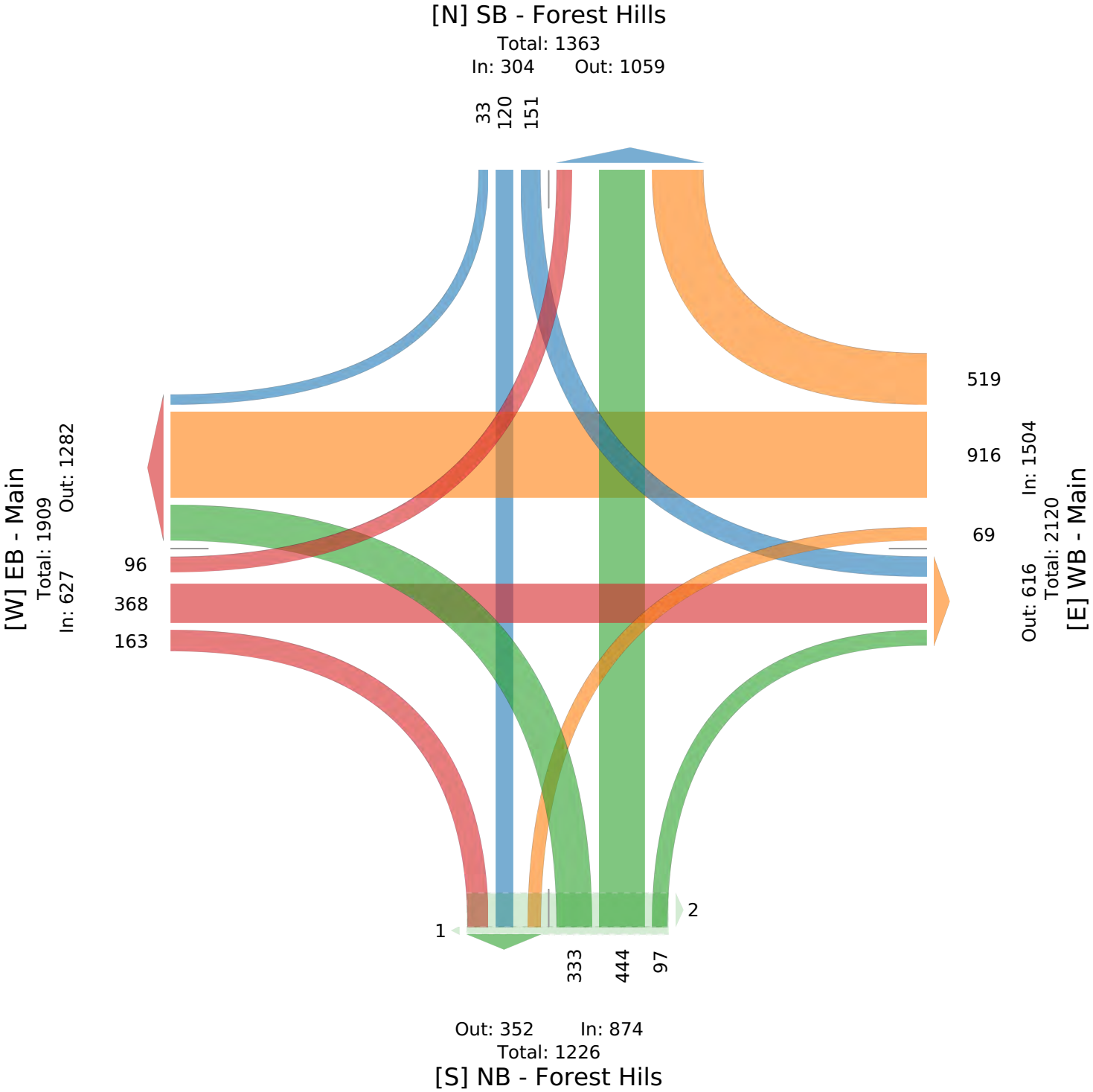
Tue Apr 13, 2021
AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians)
All Movements
ID: 829104, Location: 44.693874, -63.499017

Leg Direction	EB - Main Eastbound						WB - Main Westbound						NB - Forest Hils Northbound						SB - Forest Hills Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2021-04-13 7:30AM	26	86	30	0	**142**	0	10	239	183	0	**432**	0	114	118	16	0	**248**	0	23	27	7	0	**57**	0	**879**
7:45AM	28	81	35	0	**144**	0	9	219	105	0	**333**	0	92	132	22	0	**246**	1	48	32	13	0	**93**	0	**816**
8:00AM	20	90	43	0	**153**	0	24	256	110	0	**390**	0	67	97	16	0	**180**	2	33	27	8	0	**68**	0	**791**
8:15AM	22	111	55	0	**188**	0	26	202	121	0	**349**	0	60	97	43	0	**200**	0	47	34	5	0	**86**	0	**823**
Total	96	368	163	0	**627**	0	69	916	519	0	**1504**	0	333	444	97	0	**874**	3	151	120	33	0	**304**	0	**3309**
% Approach	15.3%	58.7%	26.0%	0%	**-**	-	4.6%	60.9%	34.5%	0%	**-**	-	38.1%	50.8%	11.1%	0%	**-**	-	49.7%	39.5%	10.9%	0%	**-**	-	-
% Total	2.9%	11.1%	4.9%	0%	**18.9%**	-	2.1%	27.7%	15.7%	0%	**45.5%**	-	10.1%	13.4%	2.9%	0%	**26.4%**	-	4.6%	3.6%	1.0%	0%	**9.2%**	-	-
PHF	0.857	0.829	0.741	-	**0.834**	-	0.663	0.895	0.709	-	**0.870**	-	0.730	0.841	0.564	-	**0.881**	-	0.786	0.882	0.635	-	**0.817**	-	0.941
Lights	93	347	153	0	**593**	-	64	890	495	0	**1449**	-	325	432	95	0	**852**	-	134	112	30	0	**276**	-	3170
% Lights	96.9%	94.3%	93.9%	0%	**94.6%**	-	92.8%	97.2%	95.4%	0%	**96.3%**	-	97.6%	97.3%	97.9%	0%	**97.5%**	-	88.7%	93.3%	90.9%	0%	**90.8%**	-	95.8%
Articulated Trucks and Single-Unit Trucks	3	15	4	0	**22**	-	3	16	21	0	**40**	-	3	9	1	0	**13**	-	16	7	3	0	**26**	-	101
% Articulated Trucks and Single-Unit Trucks	3.1%	4.1%	2.5%	0%	**3.5%**	-	4.3%	1.7%	4.0%	0%	**2.7%**	-	0.9%	2.0%	1.0%	0%	**1.5%**	-	10.6%	5.8%	9.1%	0%	**8.6%**	-	3.1%
Buses	0	6	6	0	**12**	-	2	10	3	0	**15**	-	5	3	1	0	**9**	-	1	1	0	0	**2**	-	38
% Buses	0%	1.6%	3.7%	0%	**1.9%**	-	2.9%	1.1%	0.6%	0%	**1.0%**	-	1.5%	0.7%	1.0%	0%	**1.0%**	-	0.7%	0.8%	0%	0%	**0.7%**	-	1.1%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

AM - Main and Forest Hills - TMC
Tue Apr 13, 2021
AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians)
All Movements
ID: 829104, Location: 44.693874, -63.499017

Provided by: Trans4m Development Group
59 Craigburn Drive, Dartmouth, NS, B2X 3E6, CA



PM - Main and Forest Hills - TMC

Tue Apr 13, 2021
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians)
All Movements
ID: 829108, Location: 44.693874, -63.499017

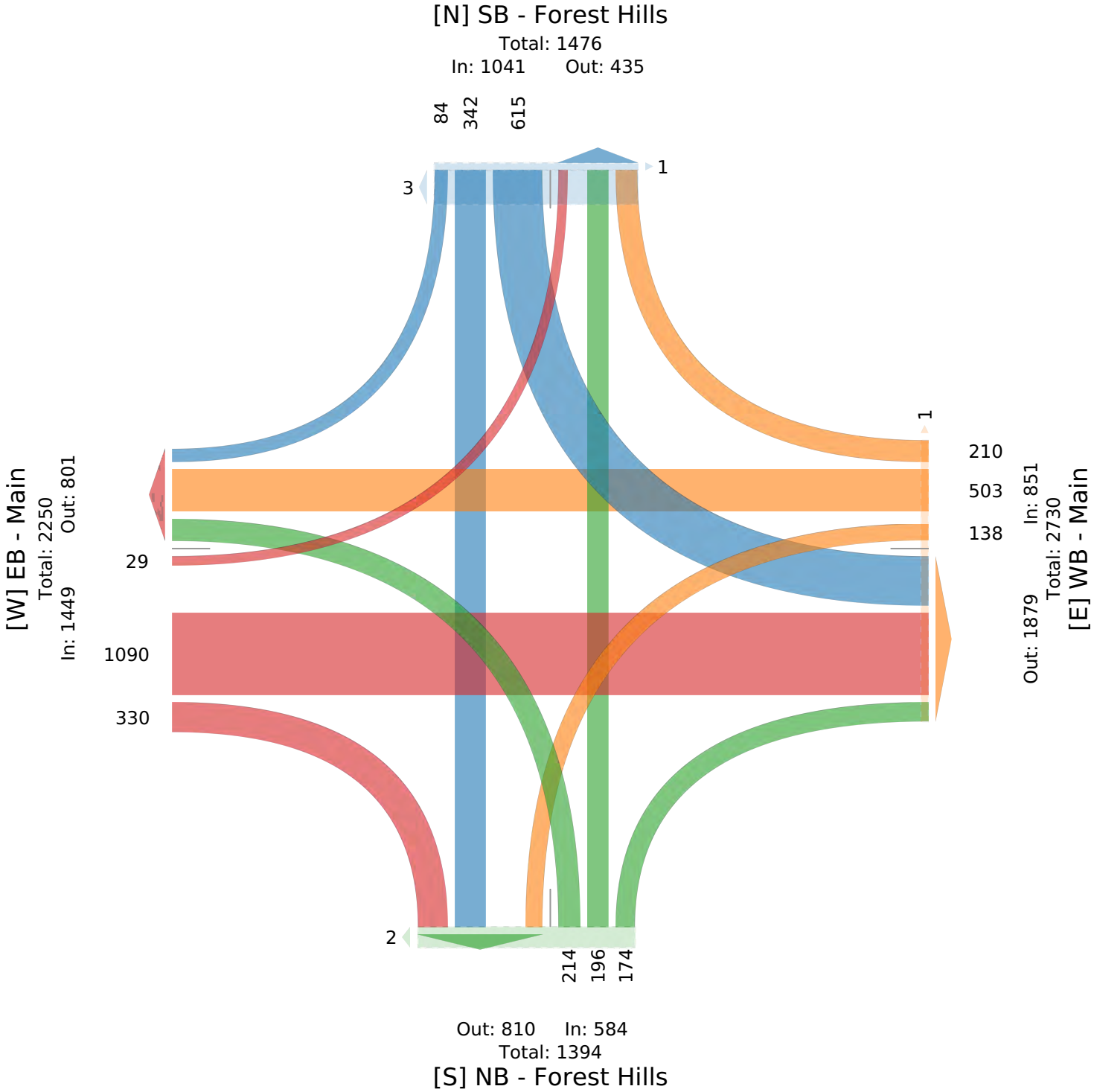
Provided by: Trans4m Development Group
59 Craigburn Drive, Dartmouth, NS, B2X 3E6, CA

Leg / Direction	EB - Main Eastbound						WB - Main Westbound						NB - Forest Hills Northbound						SB - Forest Hills Southbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2021-04-13 4:00PM	9	248	69	0	**326**	0	31	129	45	0	**205**	0	66	55	56	0	**177**	0	151	81	18	0	**250**	0	**958**
4:15PM	10	306	87	0	**403**	0	29	117	66	0	**212**	0	44	50	41	0	**135**	1	158	86	28	0	**272**	2	**1022**
4:30PM	8	299	74	0	**381**	0	40	132	51	0	**223**	1	50	47	39	0	**136**	0	159	84	11	0	**254**	1	**994**
4:45PM	2	237	100	0	**339**	0	38	125	48	0	**211**	0	54	44	38	0	**136**	1	147	91	27	0	**265**	1	**951**
Total	29	1090	330	0	**1449**	0	138	503	210	0	**851**	1	214	196	174	0	**584**	2	615	342	84	0	**1041**	4	**3925**
% Approach	2.0%	75.2%	22.8%	0%	**-**	-	16.2%	59.1%	24.7%	0%	**-**	-	36.6%	33.6%	29.8%	0%	**-**	-	59.1%	32.9%	8.1%	0%	**-**	-	**-**
% Total	0.7%	27.8%	8.4%	0%	**36.9%**	-	3.5%	12.8%	5.4%	0%	**21.7%**	-	5.5%	5.0%	4.4%	0%	**14.9%**	-	15.7%	8.7%	2.1%	0%	**26.5%**	-	**-**
PHF	0.725	0.891	0.825	-	**0.899**	-	0.863	0.953	0.795	-	**0.954**	-	0.811	0.891	0.777	-	**0.825**	-	0.967	0.940	0.750	-	**0.957**	-	0.960
Lights	27	1076	328	0	**1431**	-	136	490	190	0	**816**	-	210	184	173	0	**567**	-	597	338	84	0	**1019**	-	3833
% Lights	93.1%	98.7%	99.4%	0%	**98.8%**	-	98.6%	97.4%	90.5%	0%	**95.9%**	-	98.1%	93.9%	99.4%	0%	**97.1%**	-	97.1%	98.8%	100%	0%	**97.9%**	-	97.7%
Articulated Trucks and Single-Unit Trucks	1	6	1	0	**8**	-	2	9	19	0	**30**	-	2	10	1	0	**13**	-	14	2	0	0	**16**	-	67
% Articulated Trucks and Single-Unit Trucks	3.4%	0.6%	0.3%	0%	**0.6%**	-	1.4%	1.8%	9.0%	0%	**3.5%**	-	0.9%	5.1%	0.6%	0%	**2.2%**	-	2.3%	0.6%	0%	0%	**1.5%**	-	1.7%
Buses	1	8	1	0	**10**	-	0	4	1	0	**5**	-	2	2	0	0	**4**	-	4	2	0	0	**6**	-	25
% Buses	3.4%	0.7%	0.3%	0%	**0.7%**	-	0%	0.8%	0.5%	0%	**0.6%**	-	0.9%	1.0%	0%	0%	**0.7%**	-	0.7%	0.6%	0%	0%	**0.6%**	-	0.6%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

PM - Main and Forest Hills - TMC
Tue Apr 13, 2021
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Lights, Articulated Trucks and Single-Unit Trucks, Buses, Pedestrians)
All Movements
ID: 829108, Location: 44.693874, -63.499017

Provided by: Trans4m Development Group
59 Craigburn Drive, Dartmouth, NS, B2X 3E6, CA



APPENDIX B – TRIP DISTRIBUTION AND ASSIGNMENT

Development: Lake Loon

Driveway: 1 Development

Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Development to Main - West	45	58	45	176
2	Development to Ridgecrest - South	5	6	5	20
3	Development to Forest Hills - South	10	13	10	39
4	Development to Forest Hills - North	35	45	35	137
5	Development to Main - East	5	6	5	20

Development: Lake Loon
Driveway: 1 Development

Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Development to Main - West	45	58	45	176
2	Development to Ridgecrest - South	5	6	5	20
3	Development to Forest Hills - South	10	13	10	39
4	Development to Forest Hills - North	35	45	35	137
5	Development to Main - East	5	6	5	20

Development: Lake Loon
Driveway: 1 Development

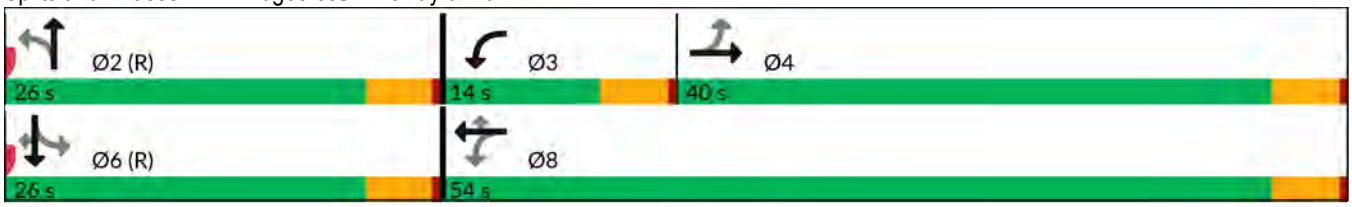
Origin #	Route	To		From	
		Distribution %	Trips	Distribution %	Trips
1	Development to Main - West	45	171	45	111
2	Development to Ridgecrest - South	5	19	5	12
3	Development to Forest Hills - South	10	38	10	25
4	Development to Forest Hills - North	35	133	35	86
5	Development to Main - East	5	19	5	12

APPENDIX C – SYNCHRO REPORTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	450	15	95	1180	0	75	0	150	0	0	0
Future Volume (vph)	0	450	15	95	1180	0	75	0	150	0	0	0
Satd. Flow (prot)	1863	3522	0	1770	3539	1863	1770	1583	0	0	1863	1863
Flt Permitted				0.376			0.757					
Satd. Flow (perm)	1863	3522	0	700	3539	1863	1410	1583	0	0	1863	1863
Satd. Flow (RTOR)		5						435				
Lane Group Flow (vph)	0	505	0	103	1283	0	82	163	0	0	0	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA				Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Total Split (s)	40.0	40.0		14.0	54.0	54.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Act Effct Green (s)		35.5		49.5	49.5		21.5	21.5				
Actuated g/C Ratio		0.44		0.62	0.62		0.27	0.27				
v/c Ratio		0.32		0.18	0.59		0.22	0.22				
Control Delay (s/veh)		15.0		7.0	10.5		24.6	0.7				
Queue Delay		0.0		0.0	0.0		0.0	0.0				
Total Delay (s/veh)		15.0		7.0	10.5		24.6	0.7				
LOS		B		A	B		C	A				
Approach Delay (s/veh)		15.0			10.2			8.7				
Approach LOS		B			B			A				
Queue Length 50th (m)		26.2		5.9	57.6		10.2	0.0				
Queue Length 95th (m)		37.5		11.9	75.5		21.6	0.0				
Internal Link Dist (m)		365.3			459.4			167.4			83.1	
Turn Bay Length (m)				50.0								
Base Capacity (vph)		1565		560	2189		378	743				
Starvation Cap Reductn		0		0	0		0	0				
Spillback Cap Reductn		0		0	0		0	0				
Storage Cap Reductn		0		0	0		0	0				
Reduced v/c Ratio		0.32		0.18	0.59		0.22	0.22				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.59	
Intersection Signal Delay (s/veh): 11.2	Intersection LOS: B
Intersection Capacity Utilization 59.0%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Ridgecrest/Driveway & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	130	360	170	40	920	510	350	540	80	120	80	40
Future Volume (vph)	130	360	170	40	920	510	350	540	80	120	80	40
Satd. Flow (prot)	1770	3539	1794	1770	3528	0	3433	2048	1583	3586	1848	0
Flt Permitted	0.092			0.508			0.950			0.950		
Satd. Flow (perm)	171	3539	1794	946	3528	0	3433	2048	1583	3586	1848	0
Satd. Flow (RTOR)			170		112				131		19	
Lane Group Flow (vph)	130	360	170	40	1430	0	350	540	80	120	120	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6					3			
Total Split (s)	9.0	49.0	49.0	9.0	49.0		30.0	30.0	30.0	22.0	22.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	6.2		6.5	6.5	6.5	6.0	6.0	
Act Effct Green (s)	50.0	43.5	43.5	50.0	42.8		23.5	23.5	23.5	16.0	16.0	
Actuated g/C Ratio	0.45	0.40	0.40	0.45	0.39		0.21	0.21	0.21	0.15	0.15	
v/c Ratio	0.87	0.26	0.21	0.09	0.99		0.48	1.24	0.18	0.23	0.42	
Control Delay (s/veh)	66.1	23.0	3.9	15.2	53.3		40.4	162.2	2.2	42.9	40.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	66.1	23.0	3.9	15.2	53.3		40.4	162.2	2.2	42.9	40.9	
LOS	E	C	A	B	D		D	F	A	D	D	
Approach Delay (s/veh)		26.6			52.3			105.0			41.9	
Approach LOS		C			D			F			D	
Queue Length 50th (m)	15.6	28.3	0.0	4.6	157.5		35.9	~151.4	0.0	12.5	20.9	
Queue Length 95th (m)	#48.4	39.7	13.3	10.6	#211.8		50.6	#218.8	3.1	21.4	39.7	
Internal Link Dist (m)		459.4			497.6			266.2			1120.6	
Turn Bay Length (m)	45.0		115.0	45.0			100.0		80.0	200.0		
Base Capacity (vph)	150	1399	812	467	1441		733	437	441	521	285	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.87	0.26	0.21	0.09	0.99		0.48	1.24	0.18	0.23	0.42	

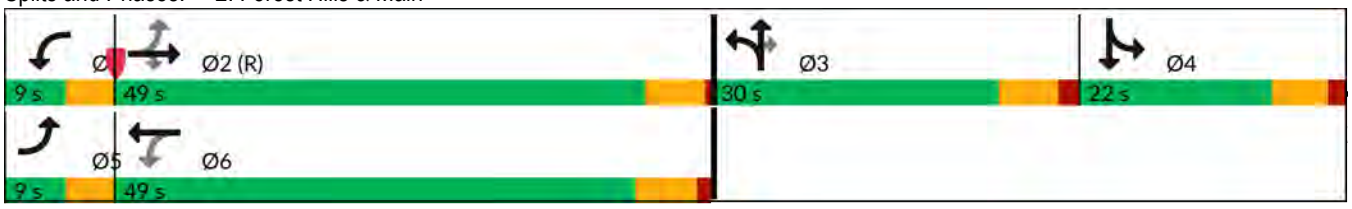
Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 110
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green, Master Intersection
Control Type: Pretimed
Maximum v/c Ratio: 1.24
Intersection Signal Delay (s/veh): 61.8 Intersection LOS: E
Intersection Capacity Utilization 98.6% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

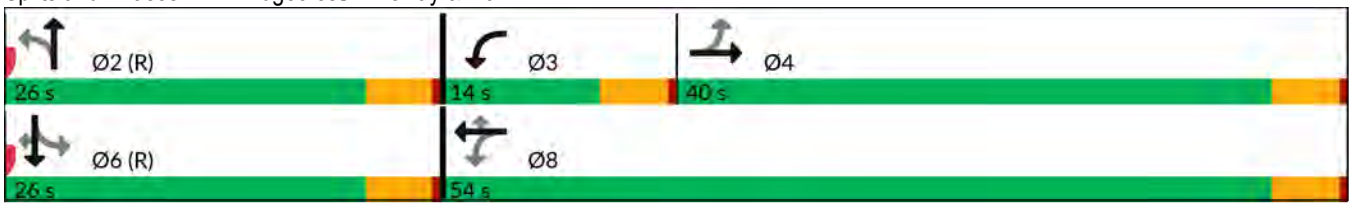
Splits and Phases: 2: Forest Hills & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	477	16	101	1251	0	80	0	159	0	0	0
Future Volume (vph)	0	477	16	101	1251	0	80	0	159	0	0	0
Satd. Flow (prot)	1863	3522	0	1770	3539	1863	1770	1583	0	0	1863	1863
Flt Permitted				0.360			0.757					
Satd. Flow (perm)	1863	3522	0	671	3539	1863	1410	1583	0	0	1863	1863
Satd. Flow (RTOR)		5						418				
Lane Group Flow (vph)	0	535	0	110	1360	0	87	173	0	0	0	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA				Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Total Split (s)	40.0	40.0		14.0	54.0	54.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Act Effct Green (s)		35.5		49.5	49.5		21.5	21.5				
Actuated g/C Ratio		0.44		0.62	0.62		0.27	0.27				
v/c Ratio		0.34		0.20	0.62		0.23	0.24				
Control Delay (s/veh)		15.2		7.2	11.0		24.8	0.8				
Queue Delay		0.0		0.0	0.0		0.0	0.0				
Total Delay (s/veh)		15.2		7.2	11.0		24.8	0.8				
LOS		B		A	B		C	A				
Approach Delay (s/veh)		15.2			10.7			8.8				
Approach LOS		B			B			A				
Queue Length 50th (m)		28.0		6.4	63.3		10.8	0.0				
Queue Length 95th (m)		39.7		12.5	82.6		22.7	0.0				
Internal Link Dist (m)		365.3			459.4			167.4			83.1	
Turn Bay Length (m)				50.0								
Base Capacity (vph)		1565		545	2189		378	731				
Starvation Cap Reductn		0		0	0		0	0				
Spillback Cap Reductn		0		0	0		0	0				
Storage Cap Reductn		0		0	0		0	0				
Reduced v/c Ratio		0.34		0.20	0.62		0.23	0.24				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay (s/veh): 11.6	Intersection LOS: B
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Ridgecrest/Driveway & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	382	180	42	975	541	371	572	85	127	85	42
Future Volume (vph)	138	382	180	42	975	541	371	572	85	127	85	42
Satd. Flow (prot)	1863	3725	1889	1863	3524	0	3614	2048	1667	3774	1946	0
Flt Permitted	0.090			0.525			0.950			0.950		
Satd. Flow (perm)	176	3725	1889	1029	3524	0	3614	2048	1667	3774	1946	0
Satd. Flow (RTOR)			180		106				174		19	
Lane Group Flow (vph)	138	382	180	42	1516	0	371	572	85	127	127	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6					3			
Total Split (s)	15.5	51.5	51.5	9.0	45.0		29.0	29.0	29.0	20.5	20.5	
Total Lost Time (s)	4.0	6.5	6.5	4.0	6.5		6.5	6.5	6.5	6.0	6.0	
Act Effct Green (s)	55.2	47.5	47.5	46.4	38.9		22.5	22.5	22.5	11.3	11.3	
Actuated g/C Ratio	0.52	0.45	0.45	0.44	0.37		0.21	0.21	0.21	0.11	0.11	
v/c Ratio	0.55	0.23	0.19	0.09	1.11		0.48	1.31	0.17	0.31	0.56	
Control Delay (s/veh)	24.7	19.4	3.6	13.9	91.5		39.5	190.7	0.8	45.7	48.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	24.7	19.4	3.6	13.9	91.5		39.5	190.7	0.8	45.7	48.2	
LOS	C	B	A	B	F		D	F	A	D	D	
Approach Delay (s/veh)		16.4			89.4			120.4			47.0	
Approach LOS		B			F			F			D	
Queue Length 50th (m)	14.8	28.0	0.0	4.3	~191.9		37.3	~164.1	0.0	13.4	22.7	
Queue Length 95th (m)	32.4	40.6	13.1	10.3	#251.6		53.7	#239.2	0.0	22.8	42.3	
Internal Link Dist (m)		459.4			497.6			266.2			1120.6	
Turn Bay Length (m)	45.0		115.0	45.0			100.0		80.0	200.0		
Base Capacity (vph)	275	1675	948	491	1364		771	436	492	519	284	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.50	0.23	0.19	0.09	1.11		0.48	1.31	0.17	0.24	0.45	

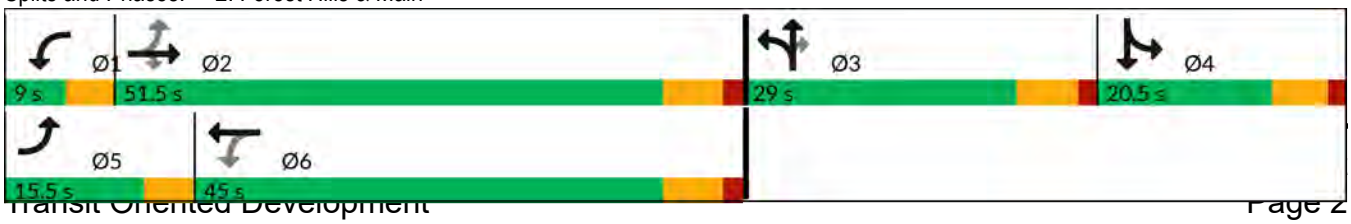
Intersection Summary

Cycle Length: 110
Actuated Cycle Length: 105.6
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.31
Intersection Signal Delay (s/veh): 80.9 Intersection LOS: F
Intersection Capacity Utilization 102.9% ICU Level of Service G
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

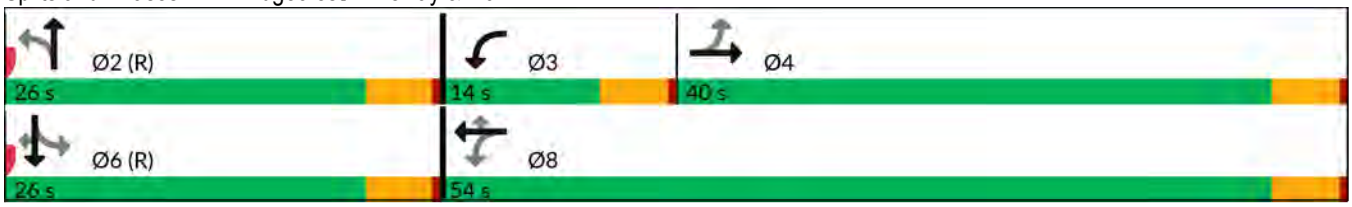
Splits and Phases: 2: Forest Hills & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	477	16	101	1251	0	80	0	159	0	0	0
Future Volume (vph)	58	477	16	101	1251	64	80	6	159	196	20	176
Satd. Flow (prot)	1770	3522	0	1770	3539	1583	1770	1595	0	0	1783	1583
Flt Permitted	0.191			0.360			0.490				0.957	
Satd. Flow (perm)	356	3522	0	671	3539	1583	913	1595	0	0	1783	1583
Satd. Flow (RTOR)		5				70		173				82
Lane Group Flow (vph)	63	535	0	110	1360	70	87	180	0	0	235	191
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA			NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Total Split (s)	40.0	40.0		14.0	54.0	54.0	26.0	26.0		26.0	26.0	26.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Act Effct Green (s)	35.5	35.5		49.5	49.5	49.5	21.5	21.5			21.5	21.5
Actuated g/C Ratio	0.44	0.44		0.62	0.62	0.62	0.27	0.27			0.27	0.27
v/c Ratio	0.40	0.34		0.20	0.62	0.07	0.36	0.32			0.49	0.39
Control Delay (s/veh)	24.7	15.2		7.2	11.0	1.9	28.7	6.2			28.8	16.4
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay (s/veh)	24.7	15.2		7.2	11.0	1.9	28.7	6.2			28.8	16.4
LOS	C	B		A	B	A	C	A			C	B
Approach Delay (s/veh)		16.2			10.3			13.5			23.2	
Approach LOS		B			B			B			C	
Queue Length 50th (m)	6.6	28.0		6.4	63.3	0.0	11.2	0.8			31.6	13.7
Queue Length 95th (m)	18.8	39.7		12.5	82.6	4.4	24.5	15.4			53.4	31.8
Internal Link Dist (m)		365.3			459.4			167.4			83.1	
Turn Bay Length (m)	80.0			50.0		50.0						60.0
Base Capacity (vph)	157	1565		545	2189	1006	245	555			479	485
Starvation Cap Reductn	0	0		0	0	0	0	0			0	0
Spillback Cap Reductn	0	0		0	0	0	0	0			0	0
Storage Cap Reductn	0	0		0	0	0	0	0			0	0
Reduced v/c Ratio	0.40	0.34		0.20	0.62	0.07	0.36	0.32			0.49	0.39

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.62	
Intersection Signal Delay (s/veh): 13.8	Intersection LOS: B
Intersection Capacity Utilization 61.5%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 1: Ridgecrest/Driveway & Main

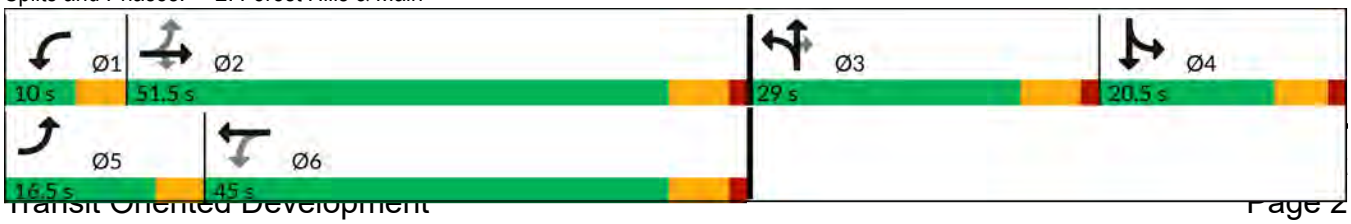


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	138	382	180	42	975	541	371	572	85	127	85	42
Future Volume (vph)	275	402	219	42	981	541	384	572	85	127	85	87
Satd. Flow (prot)	1863	3725	1889	1863	3528	0	3614	2048	1667	3774	1892	0
Flt Permitted	0.091			0.515			0.950			0.950		
Satd. Flow (perm)	178	3725	1889	1010	3528	0	3614	2048	1667	3774	1892	0
Satd. Flow (RTOR)			219		103				172		38	
Lane Group Flow (vph)	275	402	219	42	1522	0	384	572	85	127	172	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6					3			
Total Split (s)	16.5	51.5	51.5	10.0	45.0		29.0	29.0	29.0	20.5	20.5	
Total Lost Time (s)	4.0	6.5	6.5	4.0	6.5		6.5	6.5	6.5	6.0	6.0	
Act Effct Green (s)	57.5	49.1	49.1	47.0	38.5		22.5	22.5	22.5	12.3	12.3	
Actuated g/C Ratio	0.53	0.45	0.45	0.43	0.35		0.21	0.21	0.21	0.11	0.11	
v/c Ratio	0.96	0.24	0.23	0.09	1.16		0.51	1.35	0.18	0.30	0.69	
Control Delay (s/veh)	71.9	20.1	3.4	14.1	111.6		41.5	208.7	0.8	45.9	51.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	71.9	20.1	3.4	14.1	111.6		41.5	208.7	0.8	45.9	51.1	
LOS	E	C	A	B	F		D	F	A	D	D	
Approach Delay (s/veh)		31.9			109.0			130.1			48.9	
Approach LOS		C			F			F			D	
Queue Length 50th (m)	44.9	31.2	0.0	4.5	~209.1		40.2	~171.4	0.0	13.6	29.1	
Queue Length 95th (m)	#100.2	43.4	14.5	10.3	#256.7		56.2	#241.9	0.0	23.0	52.8	
Internal Link Dist (m)		459.4			497.6			266.2			1120.6	
Turn Bay Length (m)	45.0		115.0	45.0			100.0		80.0	200.0		
Base Capacity (vph)	287	1680	972	483	1314		747	423	481	502	285	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.96	0.24	0.23	0.09	1.16		0.51	1.35	0.18	0.25	0.60	

Intersection Summary

Cycle Length: 111
Actuated Cycle Length: 108.9
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.35
Intersection Signal Delay (s/veh): 91.8 Intersection LOS: F
Intersection Capacity Utilization 102.9% ICU Level of Service G
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

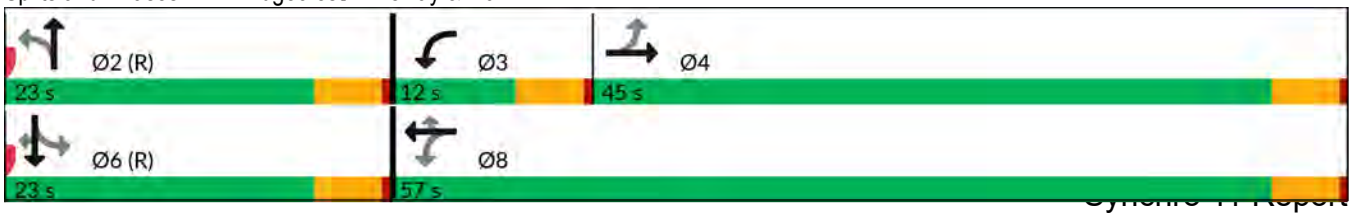
Splits and Phases: 2: Forest Hills & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1460	70	200	770	0	30	0	220	0	0	0
Future Volume (vph)	0	1460	70	200	770	0	30	0	220	0	0	0
Satd. Flow (prot)	1863	3514	0	1770	3539	1863	1770	1583	0	0	1863	1863
Flt Permitted				0.089			0.757					
Satd. Flow (perm)	1863	3514	0	166	3539	1863	1410	1583	0	0	1863	1863
Satd. Flow (RTOR)		9						183				
Lane Group Flow (vph)	0	1663	0	217	837	0	33	239	0	0	0	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA				Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Total Split (s)	45.0	45.0		12.0	57.0	57.0	23.0	23.0		23.0	23.0	23.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Act Effct Green (s)		40.5		52.5	52.5		18.5	18.5				
Actuated g/C Ratio		0.51		0.66	0.66		0.23	0.23				
v/c Ratio		0.93		0.84	0.36		0.10	0.47				
Control Delay (s/veh)		29.9		43.4	6.7		25.3	11.0				
Queue Delay		0.0		0.0	0.0		0.0	0.0				
Total Delay (s/veh)		29.9		43.4	6.7		25.3	11.0				
LOS		C		D	A		C	B				
Approach Delay (s/veh)		29.9			14.3			12.7				
Approach LOS		C			B			B				
Queue Length 50th (m)		123.0		17.7	27.6		4.2	7.2				
Queue Length 95th (m)		#179.8		#55.9	37.0		11.3	26.8				
Internal Link Dist (m)		365.3			459.4			167.4			83.1	
Turn Bay Length (m)				50.0								
Base Capacity (vph)		1783		259	2322		326	506				
Starvation Cap Reductn		0		0	0		0	0				
Spillback Cap Reductn		0		0	0		0	0				
Storage Cap Reductn		0		0	0		0	0				
Reduced v/c Ratio		0.93		0.84	0.36		0.10	0.47				

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.93	
Intersection Signal Delay (s/veh): 22.8	Intersection LOS: C
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: Ridgecrest/Driveway & Main



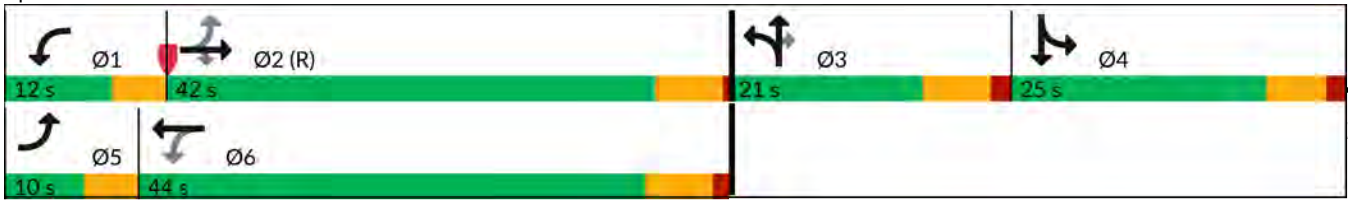
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	60	1100	480	200	580	280	250	230	200	600	300	80
Future Volume (vph)	60	1100	480	200	580	280	250	230	200	600	300	80
Satd. Flow (prot)	1770	3539	1794	1770	3366	0	3433	1946	1583	3586	1883	0
Flt Permitted	0.215			0.106			0.950			0.950		
Satd. Flow (perm)	400	3539	1794	197	3366	0	3433	1946	1583	3586	1883	0
Satd. Flow (RTOR)			480		94				144		12	
Lane Group Flow (vph)	60	1100	480	200	860	0	250	230	200	600	380	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6					3			
Total Split (s)	10.0	42.0	42.0	12.0	44.0		21.0	21.0	21.0	25.0	25.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	6.2		6.5	6.5	6.5	6.0	6.0	
Act Effct Green (s)	44.0	36.5	36.5	48.0	37.8		14.5	14.5	14.5	19.0	19.0	
Actuated g/C Ratio	0.44	0.37	0.37	0.48	0.38		0.15	0.15	0.15	0.19	0.19	
v/c Ratio	0.23	0.85	0.50	0.91	0.65		0.50	0.82	0.57	0.88	1.04	
Control Delay (s/veh)	15.5	37.1	4.1	63.0	25.3		43.4	64.9	19.8	55.3	96.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	15.5	37.1	4.1	63.0	25.3		43.4	64.9	19.8	55.3	96.2	
LOS	B	D	A	E	C		D	E	B	E	F	
Approach Delay (s/veh)		26.6			32.4			43.7			71.2	
Approach LOS		C			C			D			E	
Queue Length 50th (m)	6.1	107.3	0.0	23.4	66.8		24.5	46.1	10.3	61.9	~81.7	
Queue Length 95th (m)	12.8	135.5	20.3	#66.8	88.2		37.2	#85.8	33.1	#91.8	#140.6	
Internal Link Dist (m)		459.4			497.6			266.2			1120.6	
Turn Bay Length (m)	45.0		115.0	45.0			100.0		80.0	200.0		
Base Capacity (vph)	258	1291	959	220	1330		497	282	352	681	367	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.23	0.85	0.50	0.91	0.65		0.50	0.82	0.57	0.88	1.04	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green, Master Intersection	
Control Type: Pretimed	
Maximum v/c Ratio: 1.04	
Intersection Signal Delay (s/veh): 40.7	Intersection LOS: D
Intersection Capacity Utilization 89.0%	ICU Level of Service E
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Forest Hills & Main

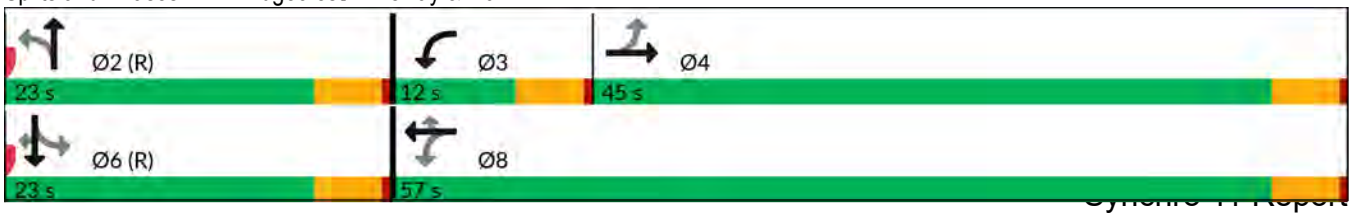


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1548	74	212	816	0	32	0	233	0	0	0
Future Volume (vph)	0	1548	74	212	816	0	32	0	233	0	0	0
Satd. Flow (prot)	1863	3514	0	1770	3539	1863	1770	1583	0	0	1863	1863
Flt Permitted				0.089			0.757					
Satd. Flow (perm)	1863	3514	0	166	3539	1863	1410	1583	0	0	1863	1863
Satd. Flow (RTOR)		9						180				
Lane Group Flow (vph)	0	1763	0	230	887	0	35	253	0	0	0	0
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA				Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Total Split (s)	45.0	45.0		12.0	57.0	57.0	23.0	23.0		23.0	23.0	23.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Act Effct Green (s)		40.5		52.5	52.5		18.5	18.5				
Actuated g/C Ratio		0.51		0.66	0.66		0.23	0.23				
v/c Ratio		0.99		0.89	0.38		0.11	0.50				
Control Delay (s/veh)		39.7		51.7	6.9		25.4	12.6				
Queue Delay		0.0		0.0	0.0		0.0	0.0				
Total Delay (s/veh)		39.7		51.7	6.9		25.4	12.6				
LOS		D		D	A		C	B				
Approach Delay (s/veh)		39.7			16.1			14.1				
Approach LOS		D			B			B				
Queue Length 50th (m)		137.8		20.0	29.7		4.4	9.5				
Queue Length 95th (m)		#198.3		#61.1	39.8		11.9	30.4				
Internal Link Dist (m)		365.3			459.4			167.4			83.1	
Turn Bay Length (m)				50.0								
Base Capacity (vph)		1783		259	2322		326	504				
Starvation Cap Reductn		0		0	0		0	0				
Spillback Cap Reductn		0		0	0		0	0				
Storage Cap Reductn		0		0	0		0	0				
Reduced v/c Ratio		0.99		0.89	0.38		0.11	0.50				

Intersection Summary

Cycle Length: 80
Actuated Cycle Length: 80
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Control Type: Pretimed
Maximum v/c Ratio: 0.99
Intersection Signal Delay (s/veh): 29.0 Intersection LOS: C
Intersection Capacity Utilization 82.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Ridgecrest/Driveway & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1166	509	212	615	297	265	244	212	636	318	85
Future Volume (vph)	64	1166	509	212	615	297	265	244	212	636	318	85
Satd. Flow (prot)	1770	3539	1794	1770	3366	0	3433	1946	1583	3586	1883	0
Flt Permitted	0.189			0.106			0.950			0.950		
Satd. Flow (perm)	352	3539	1794	197	3366	0	3433	1946	1583	3586	1883	0
Satd. Flow (RTOR)			475		94				144		12	
Lane Group Flow (vph)	64	1166	509	212	912	0	265	244	212	636	403	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6					3			
Total Split (s)	10.0	42.0	42.0	12.0	44.0		21.0	21.0	21.0	25.0	25.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	6.2		6.5	6.5	6.5	6.0	6.0	
Act Effct Green (s)	44.0	36.5	36.5	48.0	37.8		14.5	14.5	14.5	19.0	19.0	
Actuated g/C Ratio	0.44	0.37	0.37	0.48	0.38		0.15	0.15	0.15	0.19	0.19	
v/c Ratio	0.27	0.90	0.53	0.96	0.69		0.53	0.87	0.60	0.93	1.10	
Control Delay (s/veh)	16.2	41.2	5.3	75.2	26.4		44.0	71.2	22.0	62.4	114.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	16.2	41.2	5.3	75.2	26.4		44.0	71.2	22.0	62.4	114.2	
LOS	B	D	A	E	C		D	E	C	E	F	
Approach Delay (s/veh)		29.8			35.6			46.7			82.5	
Approach LOS		C			D			D			F	
Queue Length 50th (m)	6.5	117.1	4.5	26.1	72.8		26.1	49.3	12.6	66.3	~91.8	
Queue Length 95th (m)	13.6	#158.8	27.2	#72.9	95.7		39.2	#92.6	36.6	#100.4	#151.9	
Internal Link Dist (m)		459.4			497.6			266.2			1120.6	
Turn Bay Length (m)	45.0		115.0	45.0			100.0		80.0	200.0		
Base Capacity (vph)	239	1291	956	220	1330		497	282	352	681	367	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.27	0.90	0.53	0.96	0.69		0.53	0.87	0.60	0.93	1.10	

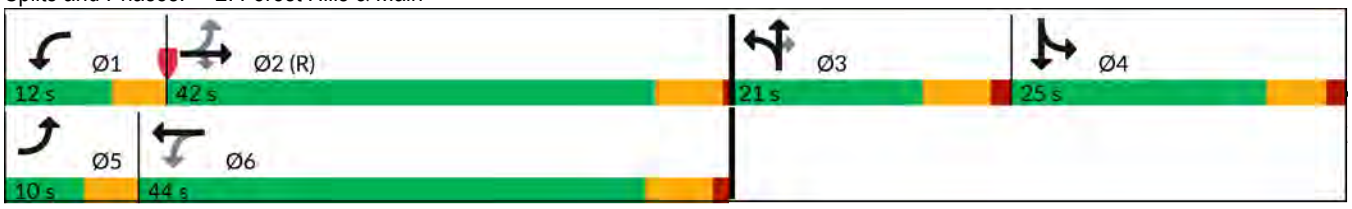
Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green, Master Intersection
Control Type: Pretimed
Maximum v/c Ratio: 1.10
Intersection Signal Delay (s/veh): 45.7 Intersection LOS: D
Intersection Capacity Utilization 93.3% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Forest Hills & Main

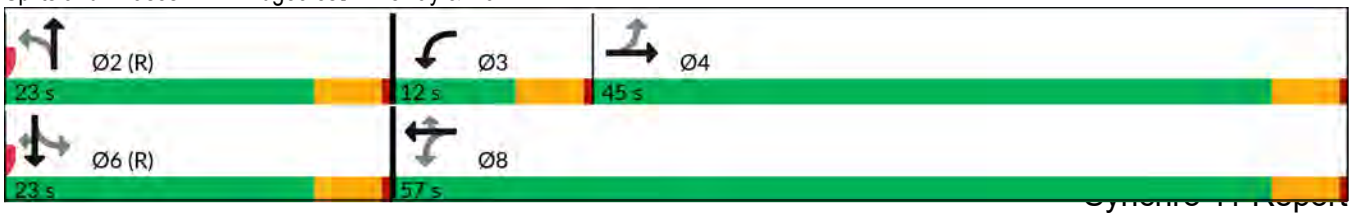


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1548	74	212	816	0	32	0	233	0	0	0
Future Volume (vph)	171	1548	74	212	816	190	32	19	233	123	12	111
Satd. Flow (prot)	1770	3514	0	1770	3539	1583	1770	1604	0	0	1781	1583
Flt Permitted	0.321			0.089			0.629				0.956	
Satd. Flow (perm)	598	3514	0	166	3539	1583	1172	1604	0	0	1781	1583
Satd. Flow (RTOR)		9				207		180				121
Lane Group Flow (vph)	186	1763	0	230	887	207	35	274	0	0	147	121
Turn Type	Perm	NA		pm+pt	NA	Perm	Perm	NA			NA	Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8		8	2			6		6
Total Split (s)	45.0	45.0		12.0	57.0	57.0	23.0	23.0		23.0	23.0	23.0
Total Lost Time (s)	4.5	4.5		4.5	4.5	4.5	4.5	4.5			4.5	4.5
Act Effct Green (s)	40.5	40.5		52.5	52.5	52.5	18.5	18.5			18.5	18.5
Actuated g/C Ratio	0.51	0.51		0.66	0.66	0.66	0.23	0.23			0.23	0.23
v/c Ratio	0.62	0.99		0.89	0.38	0.19	0.13	0.54			0.36	0.26
Control Delay (s/veh)	25.1	39.7		51.7	6.9	1.2	25.9	14.2			28.8	6.9
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay (s/veh)	25.1	39.7		51.7	6.9	1.2	25.9	14.2			28.8	6.9
LOS	C	D		D	A	A	C	B			C	A
Approach Delay (s/veh)		38.3			13.8			15.6			18.9	
Approach LOS		D			B			B			B	
Queue Length 50th (m)	20.1	137.8		20.0	29.7	0.0	4.5	12.3			19.8	0.0
Queue Length 95th (m)	45.6	#198.3		#61.1	39.8	6.3	12.0	35.1			36.4	12.8
Internal Link Dist (m)		365.3			459.4			167.4			83.1	
Turn Bay Length (m)	80.0			50.0		50.0						60.0
Base Capacity (vph)	302	1783		259	2322	1110	271	509			411	459
Starvation Cap Reductn	0	0		0	0	0	0	0			0	0
Spillback Cap Reductn	0	0		0	0	0	0	0			0	0
Storage Cap Reductn	0	0		0	0	0	0	0			0	0
Reduced v/c Ratio	0.62	0.99		0.89	0.38	0.19	0.13	0.54			0.36	0.26

Intersection Summary	
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Control Type: Pretimed	
Maximum v/c Ratio: 0.99	
Intersection Signal Delay (s/veh): 26.7	Intersection LOS: C
Intersection Capacity Utilization 82.6%	ICU Level of Service E
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: Ridgecrest/Driveway & Main



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1166	509	212	615	297	265	244	212	636	318	85
Future Volume (vph)	150	1178	534	212	634	297	303	244	212	636	318	218
Satd. Flow (prot)	1770	3539	1794	1770	3369	0	3433	1946	1583	3586	1827	0
Flt Permitted	0.180			0.106			0.950			0.950		
Satd. Flow (perm)	335	3539	1794	197	3369	0	3433	1946	1583	3586	1827	0
Satd. Flow (RTOR)			475		89				144		30	
Lane Group Flow (vph)	150	1178	534	212	931	0	303	244	212	636	536	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA		Split	NA	Perm	Split	NA	
Protected Phases	5	2		1	6		3	3		4	4	
Permitted Phases	2		2	6					3			
Total Split (s)	10.0	42.0	42.0	12.0	44.0		21.0	21.0	21.0	25.0	25.0	
Total Lost Time (s)	4.0	5.5	5.5	4.0	6.2		6.5	6.5	6.5	6.0	6.0	
Act Effct Green (s)	44.0	36.5	36.5	48.0	37.8		14.5	14.5	14.5	19.0	19.0	
Actuated g/C Ratio	0.44	0.37	0.37	0.48	0.38		0.15	0.15	0.15	0.19	0.19	
v/c Ratio	0.64	0.91	0.56	0.96	0.70		0.61	0.87	0.60	0.93	1.44	
Control Delay (s/veh)	28.9	42.2	6.1	75.2	27.0		45.9	71.2	22.0	62.4	245.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	
Total Delay (s/veh)	28.9	42.2	6.1	75.2	27.0		45.9	71.2	22.0	62.4	245.5	
LOS	C	D	A	E	C		D	E	C	E	F	
Approach Delay (s/veh)		30.8			36.0			47.4			146.1	
Approach LOS		C			D			D			F	
Queue Length 50th (m)	16.1	118.8	7.8	26.1	75.6		30.2	49.3	12.6	66.3	~145.6	
Queue Length 95th (m)	#30.1	#161.5	33.4	#72.9	99.0		44.5	#92.6	36.6	#100.4	#212.2	
Internal Link Dist (m)		459.4			497.6			266.2			1120.6	
Turn Bay Length (m)	45.0		115.0	45.0			100.0		80.0	200.0		
Base Capacity (vph)	233	1291	956	220	1328		497	282	352	681	371	
Starvation Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0		0	0	0	0	0	
Reduced v/c Ratio	0.64	0.91	0.56	0.96	0.70		0.61	0.87	0.60	0.93	1.44	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:EBTL, Start of Green, Master Intersection
Control Type: Pretimed
Maximum v/c Ratio: 1.44
Intersection Signal Delay (s/veh): 61.9 Intersection LOS: E
Intersection Capacity Utilization 93.3% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 2: Forest Hills & Main