Logy Bay-Middle Cove-Outer Cove
Transportation Study

Prepared For:
Town of Logy Bay-Middle Cove-Outer Cove
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08 May 2018

Status: Draft Report
For Client Review Only

HARBOURSIDE
Transportation Consultants

HTC File #172055

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Project Name: Town of Logy Bay-Middle Cove-Outer Cove Transportation Study

Project Number: 172055

Client:	Town of Logy Bay-Middle Cove-Outer Cove
Status:	Draft Report – Issued for Client Review – May 08, 2018

Engineering Seal

Permit to Practice

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Date:	May 07, 2018	May 07, 2018	May 07, 2018

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1.0 Introduction

In recent years, development has grown in the central portion of the Town of Logy Bay-Middle Cove-Outer Cove (LBMCOC). This main development area is generally bounded by Torbay Road to the east, the Town boundary with the City of St. John's to the south, Logy Bay Road to the west and Middle Cove Road to the north. There are a number of proposals currently underway or in the planning process for this area. A total of 268 dwelling units are expected to be built over the next 10 years.

Harbourside Transportation Consultants (HTC) was retained by the Town of LBMCOC to complete a transportation study to identify the long-term transportation needs required to support future development in this area of the Town.

1.1 Objectives of the Transportation Study

The objectives of the transportation study were to address a number of concerns raised by the Town:

1. Based on the proposed residential development, what road infrastructure has to be in place to allow the proposed stages of residential development to proceed.
2. Verify that the configuration of the proposed internal road network in the best interest of the Town of LBMCOC.
3. Identify if the development area has sufficient access for both emergency vehicles and normal traffic flow.
4. Identify if sufficient allowance has been made for open space and trail connections.
5. Identify substandard roads that require upgrading as part of the planning process for both traffic operations and pedestrian safety.
6. Identify existing intersection configurations incapable of handling projected increases in traffic.
7. Identify the impact of future development on the existing school zone along Outer Cove Road.
8. Identify improvements required to support the projected development and develop a timeframe for the implementation of these improvements.

2.0 Context

2.1 Study Area

The main development area is located in the central portion of the Town of LBMCOC, shown in Figure 1. There are a number of key roadways in the study area including:

- Cadigan's Road
- Logy Bay Road
- Lower Road
- Middle Cove Road
- Outer Cove Road
- Snow's Lane

All key roadways within the study area have one lane of travel in each direction and a speed limit of 50 km/h.

Figure 1: Study area

2.2 Data Collection

Intersection turning movement counts were gathered at the fourteen study intersections using Miovision Scout video data collection units. The traffic counts were collected in September 2017 during the AM (7:00am to 9:00am), midday (11:00am to 1:00pm) and PM (4:00pm to 6:00pm) peak hours. Traffic count data can be found in Appendix A. Intersection turning movement counts were gathered at the following intersections:

1. Marine Drive & Middle Cove Road – Tuesday, September 19th, 2017
2. Marine Drive & Outer Cove Road – Tuesday, September 19th, 2017
3. Marine Drive & Lower Road – Tuesday, September 19th, 2017
4. Outer Cove Road & Pine Line – Wednesday, September 27th, 2017
5. Pine Line & Sandalwood Drive – Thursday, September 28th, 2017
6. Outer Cove Road & Big Meadow Drive – Wednesday, September 20th, 2017
7. Outer Cove Road & St. Francis Road –Thursday, September 21st, 2017
8. Logy Bay Road & Outer Cove Road/Lower Road – Thursday, September 21st, 2017
9. Logy Bay Road & Clover Dale Close – Wednesday, September 27th, 2017

10. Logy Bay Road & Cadigan's Road – Thursday, September 21st, 2017
11. Marine Drive & Cadigan's Road – Tuesday, September 26th, 2017
12. Logy Bay Road & Snow's Lane – Tuesday, September 26th, 2017
13. Snow's Lane & Ashkay Drive – Tuesday, September 26th, 2017
14. Logy Bay Road & Marine Drive – Wednesday, September 27th, 2017

Link speed and volume counts were collected at eleven locations throughout the Town using BlackCAT radar recorders to obtain average daily traffic (ADT) and 85th percentile speed values. The ADT is the total volume of vehicular traffic over a 24-hour period, and the 85th percentile speed is the speed value that 85 percent of vehicles do not exceed. A summary of the ADT counts and 85th percentile speeds are shown in Table 1, the detailed volume and speed reports can be found in Appendix B.

Table 1: Average daily traffic and 85th percentile speed results

Date	Location	ADT	85th Percentile Speed (km/h)	Posted Speed Limit (km/h)
27-Sep-17	Logy Bay Road (Town Boundary) - Near Civic Address #542	4,741	59	50
27-Sep-17	Snow's Lane - Near Civic Address #80-86	3,721	56	50
28-Sep-17	Lower Road - Near Civic Address #59	513	65	50
3-Oct-17	Marine Drive (Town Boundary) - Near Civic Address #272	894	63	50
3-Oct-17	Middle Cove Road - Near Civic Address #232	1,211	62	50
4-Oct-17	Outer Cove Road - Near Civic Address #102	1,635	63	50
4-Oct-17	Pine Line - Near Civic Address #171-397	941	69	50
5-Oct-17	Logy Bay Road - Near Civic Address #744	4,194	67	50
5-Oct-17	Marine Drive - Near Civic Address #200	887	61	50
11-Oct-17	St. Francis Road - Near Civic Address #14	239	43	30

2.3 Study Horizons and Background Traffic Forecasting

Two study horizons were selected for the purpose of this study. The horizon years for the study are 2022, a five-year projection of growth and development, and 2027, a ten-year projection of growth and development. Existing traffic volumes were factored using a background traffic growth rate of 0.8 percent per year to reflect normal increases in traffic on the study area road network.

3.0 Stakeholder Consultation

Interviews were conducted with stakeholders (developers and/or engineering/planning staff) to obtain information regarding development projections.

3.1 Russell Caddigan

An interview was conducted with Russell Caddigan on August 25th, 2017. Mr. Caddigan indicated that his development plans for the study area involve developing senior adult housing with density limited to two units per acre. He noted that in order for his proposal to proceed, an amendment to the existing zoning in the area is required.

The total development area, shown in Figure 2, including the Venice Holdings, Gosse and Kennedy properties will consist of 82 senior adult dwelling units and 64 one-acre lots. The area is subdivided into three phases. Mr. Caddigan has indicated that Phase 1, which includes the 82 senior adult dwelling units, would be completed in the 0-5 year timeframe and Phases 2 and 3 in the 5-10 year timeframe. The proposed internal road network will connect to Killick Drive and Middle Ledge Drive.

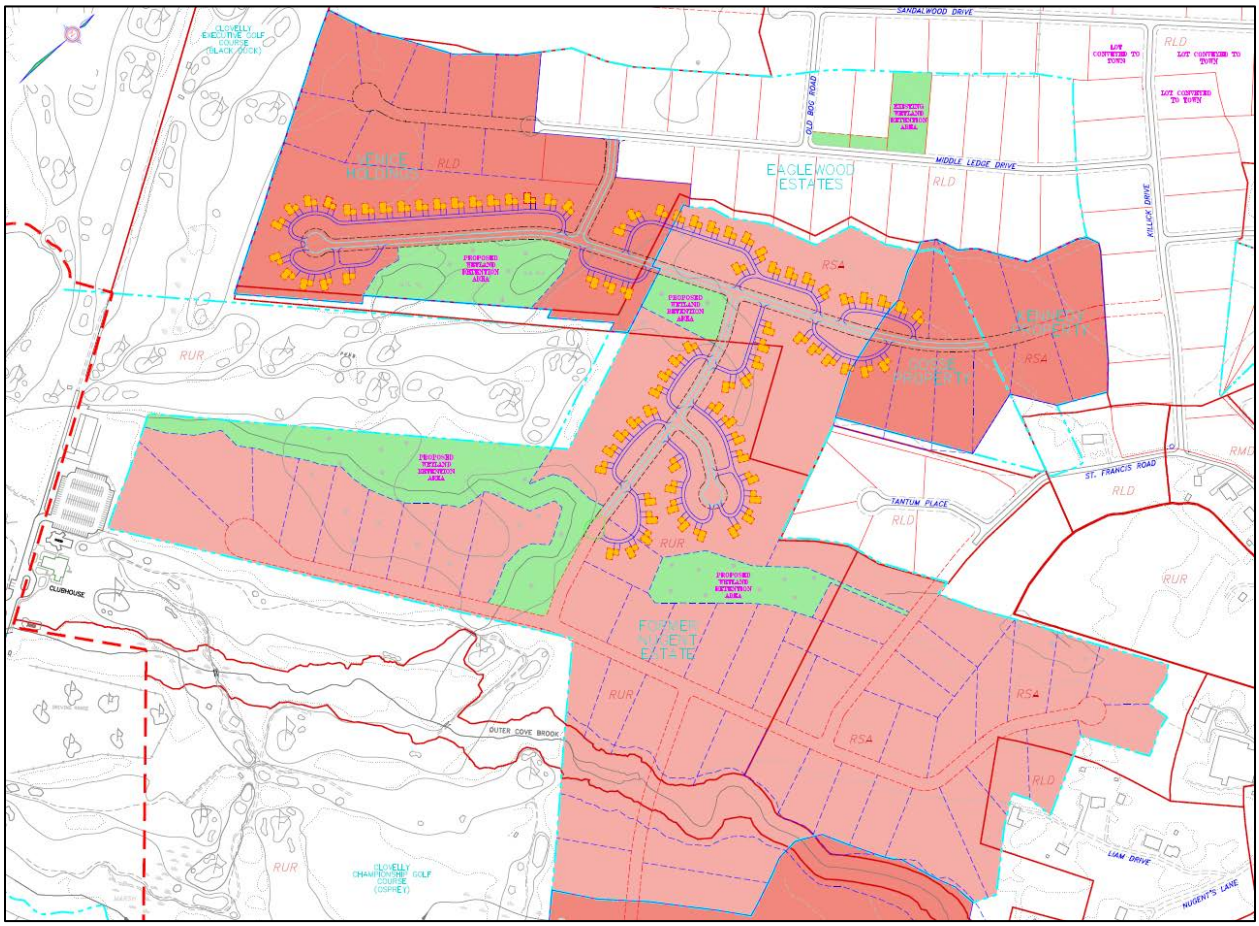


Figure 2: Caddigan property development plan

3.2 Pinnacle Engineering

An interview was conducted with Shawn Fudge, a senior engineering technologist with Pinnacle Engineering Limited, on September 13th, 2017. Pinnacle Engineering has done the planning and design work for the remainder of the study area show in Figure 3. The area includes the Basil Dobbin, Sylvester Power, O'Brien and Power Estates properties.

Basil Dobbin Property – A total of 49 one-acre lots developed in three stages. Stage 1 will consist of 27 lots, Stage 2 will consist of 8 lots and Stage 3 of 14 lots. An additional 18 lots can be developed in the area between Stages 1 and 2. The proposed internal road network will connect to Skip's Place and Stick Pond Road. Stage 1 is expected to be completed in the 0-5 year timeframe and Stages 2 and 3 in the 5-10 year timeframe.

Sylvester Power & O'Brien Properties – The concept plan proposes an extension of Clover Dale Close and Stick Pond Road into the Sylvester Power and O'Brien properties. Between the two properties, five lots can be developed in this area. This area is expected to be developed in the 5-10 year timeframe.

Power Estate Property – There are no plans for development in the Power Estate property within the study timeframe (10 years). There is a stream and wet area running through the property. A roadway connection is proposed through this property to connect Clover Dale Close to the Caddigan Development.

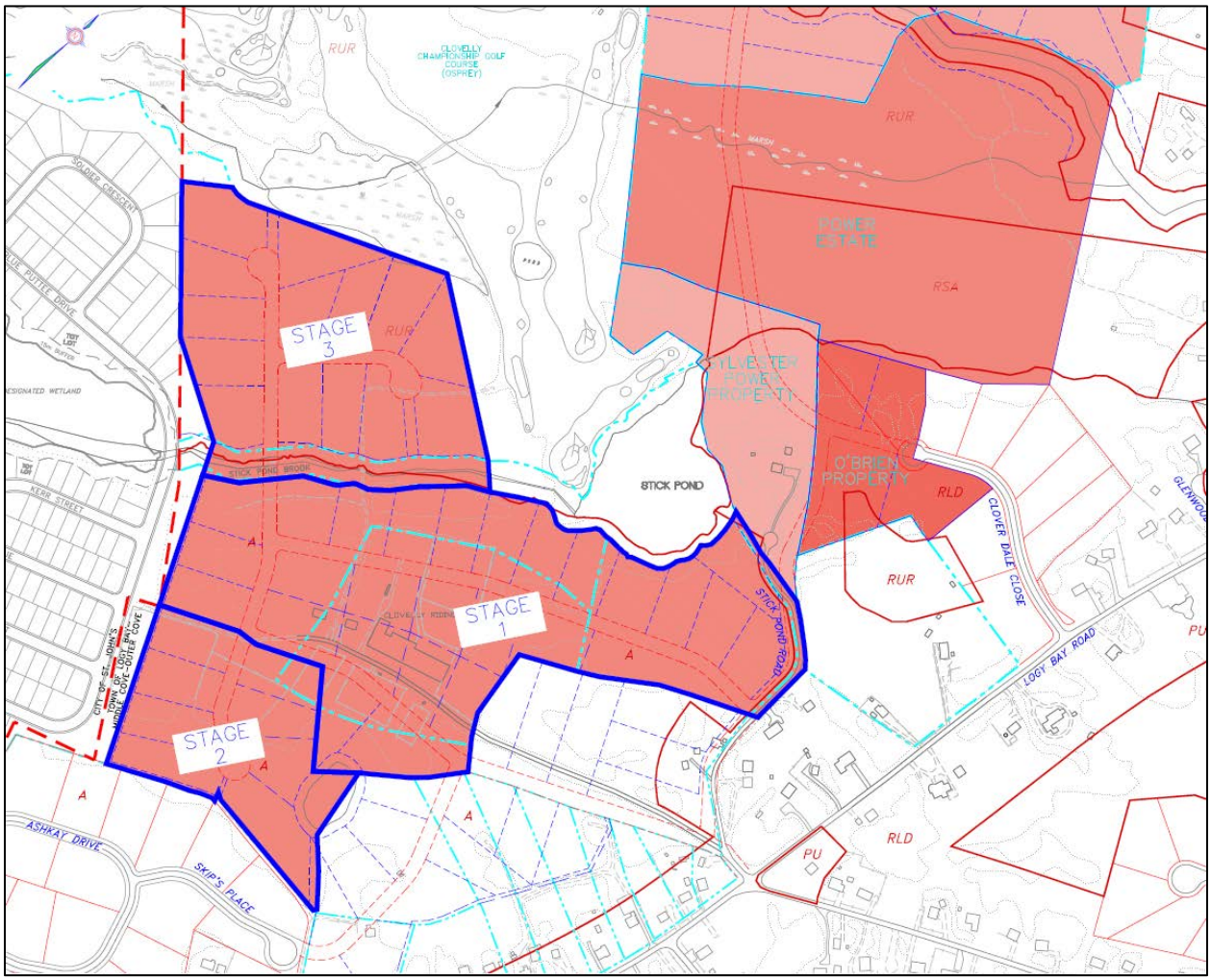


Figure 3: Basil Dobbin and others development plan

3.3 St. John's Regional Fire Department

A meeting was held with fire prevention and senior management staff at the St. John's Regional Fire Department (SJRFD) to discuss the proposed road network from an operational perspective and identify any issues with servicing.

The SJRFD indicated that the Town is primarily serviced by the Kent's Pond Station No. 6 on Portugal Cove Road. If necessary, a pumper truck is also dispatched from the Paradise Station No. 8. No existing concerns were identified with respect to the current level of service that they have contracted with the Town to provide. SJRFD did indicate that they have done some work in conjunction with Town staff with respect to identifying water sources that can be used by the pumper truck if necessary.

The SJRFD did not provide any comments with respect to the proposed road network but provided documentation referring to the elements they look for when reviewing a new development. The documentation included the SJRDF *Proposal Development Commentary Manual* and the standard form for development review comments. The SJRFD also indicated that the Town is welcome to forward any development plans to their attention for review and comment during the approval process.

3.4 Resident Concerns

Resident concerns were identified by reviewing social media posts on the Facebook group "Safe Streets of LB-MC-OC". The two common themes that emerged are speeding and traffic calming.

Speeding - Vehicle speeds are considered high throughout the entire Town. Specific roads identified to have very high speeds include:

- Pine Line
- Red Cliff Road
- O'Neil's Road
- Middle Cove Road
- Outer Cove Road
- Lower Road
- Marine Drive
- Marine Lab Road

Traffic Calming – The comments include positive feedback regarding traffic calming measures employed by the Town (speed bumps and radar speed displays). Residents have also indicated that they would like to see other traffic calming measures explored.

Request for speed bumps or other traffic calming measures on the following streets were identify through the comments:

- Red Cliff Road
- Outer Cove Road near Kelly Park. Some residents would also like to see a crosswalk in this area.
- Sandalwood Drive (replace the speed bumps that were removed)
- Pine Line
- Middle Cove Road

Other concerns noted include:

- Lack of enforcement/RNC patrol in the area
- High volumes ATV and dirt bike traffic on roads
- Dangerous driving behavior is common (drag racing, racing, burnouts, etc.)

4.0 Development Proposal

The proposed overall development plan for the study area is shown in Figure 4. The development includes residential land uses only, including single-family detached housing and senior adult housing. In total, 268 dwelling units are proposed, and a breakdown of dwelling units by property is shown in Table 2. The area can be divided into two areas, the area north of the Power Estate property and the area south of the Power Estate property.

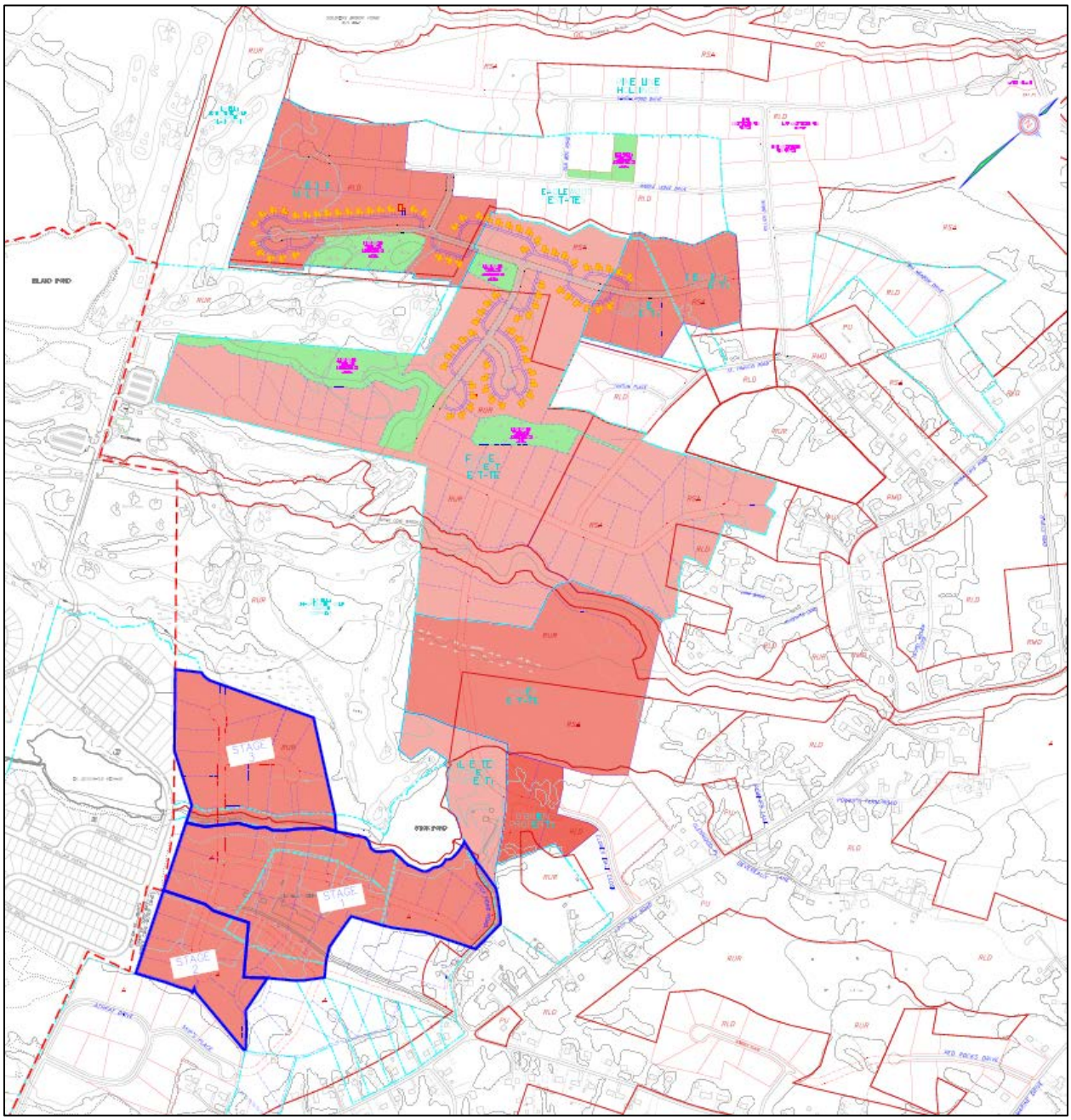


Figure 4: Overall development area

The area to the north of the Power Estate property includes the Russel Caddigan property and the remaining lots to be developed in the Pine Line Holdings and Eaglewood Estates subdivision. As of the fall of 2017 approximately 50 lots remain to be developed this area. A total of 114 single-family and 82 senior adult dwelling units are proposed for the area north of the Power Estate property.

The area to the south of the Power Estate property includes the Basil Dobbin, Sylvester and O'Brien properties. A total of 72 single-family dwelling units are proposed for the area south of the Power Estate property.

Table 2: Summary of proposed developments

Property/Land Use	Units
Pine Line Holdings	
Single-Family Detached Housing	37
Eaglewood Estates	
Single-Family Detached Housing	13
Russell Caddigan Property	
Single-Family Detached Housing	64
Senior Adult Housing - Detached	82
O'Brien & Sylvester Properties	
Single-Family Detached Housing	5
Basil Dobbin Property	
Single-Family Detached Housing	67
Total Dwelling Units	**268**

4.1 Future Road Network

A number of different road networks have been proposed over time for the study area. The road network included in the recent Pinnacle development plan (Figure 4) was used for the traffic analysis included in this study. It was assumed that the roadway through the Power Estate would not be constructed before the 5-year study horizon (2022), but that it would be constructed before the 10-year study horizon (2027). It should be noted that the future connection from Sandalwood Drive to Pine Line was not included in the road network in order to determine if it is required.

4.2 Trip Generation

The trip generation rates for the proposed background developments were quantified using the 10th edition of the *Trip Generation Manual* published by the Institute of Transportation Engineers (ITE). Two land use codes were used:

- 210 – Single-Family Detached Housing
- 251 – Senior Adult Housing - Detached

The trip generation rates for the proposed developments are summarized in Tables 3 and 4 for the five-year and ten-year horizons respectively. At full build-out in 2027, the proposed developments are expected to generate 160 trips in the AM peak hour (44 trips in/116 trips out) and 211 trips in the PM peak hour (137 trips in/74 trips out).

Table 3: Trip generation rates for the proposed developments included in the five-year horizon

Property	Land Use	Number	Unit	ITE Code	AM Peak Rate	AM Peak Trip Gen	AM Peak In	AM Peak Out	PM Peak Rate	PM Peak Trip Gen	PM Peak In	PM Peak Out
Area North of Power Estate												
Pine Line Holdings/Eaglewood Estates	Single Family Detached Housing	50	DU	210	0.74	37	10	27	0.99	50	32	18
Russell Caddigan (Phase 1)	Seniors Adult Housing - Detached	82	DU	251	0.24	20	7	13	0.30	25	16	9
	Single Family Detached Housing	18	DU	210	0.74	14	4	10	0.99	18	12	6
Area South of Power Estate												
Basil Dobbin Property (Stage 1)	Single Family Detached Housing	27	DU	210	0.74	20	5	15	0.99	27	18	9
Trips Generated at Full Build-Out						**91**	**26**	**65**		**120**	**78**	**42**

Table 4: Trip generation rates for the proposed developments included in the ten-year horizon

Property	Land Use	Number	Unit	ITE Code	AM Peak Rate	AM Peak Trip Gen	AM Peak In	AM Peak Out	PM Peak Rate	PM Peak Trip Gen	PM Peak In	PM Peak Out
Area North of Power Estate												
Russell Caddigan (Phases 2 & 3)	Single Family Detached Housing	46	DU	210	0.74	35	9	26	0.99	46	29	17
Area South of Power Estate												
O'Brien & Sylvester Properties	Single Family Detached Housing	5	DU	210	0.74	4	1	3	0.99	5	4	1
Basil Dobbin Property (Stage 2 & 3)	Single Family Detached Housing	40	DU	210	0.74	30	8	22	0.99	40	26	14
Trips Generated at Full Build-Out						**69**	**18**	**51**		**91**	**59**	**32**

4.3 Trip Distribution and Assignment

The St. John's Regional PTV Visum models were used to distribute the projected development traffic onto the study area road network. PTV Visum is a macroscopic transportation planning modelling software used to model transportation networks and travel demand to forecast traffic flows.

In 2011, the City of St. John's developed AM and PM peak hour regional models for traffic conditions in 2025. For the purposes of this study, the Visum models were updated and calibrated to reflect the existing and future road networks and travel patterns in the LBMCOC area. The four traffic analysis zones (TAZs) in the immediate area of the Town were examined in detail to ensure they were coded correctly and to ensure they were generating traffic properly. The road network and TAZs were adjusted as required. Details of the Visum model calibration can be found in Appendix C.

The proposed road network for the new developments and four project zones were added to the model to reflect future development in the Town of LBMCOC. The new project zones listed below were coded using the ITE trip generation rates described in section 4.2.

- Zone 911 – North of Power Estate (0 to 5 year timeframe)
- Zone 912 – South of Power Estate (0 to 5 year timeframe)
- Zone 913 – North of Power Estate (5 to 10 year timeframe)
- Zone 914 –South of Power Estate (5 to 10 year timeframe)

The trips associated with each zone were distributed to the road network along defined multipoint assignments (MPAs). The MPAs were manually coded for each zone based on existing travel patterns and local knowledge of the study area. The "select zone analysis" feature of the software was used to obtain traffic volumes at intersections in the model that are associated with the specified zones. These volumes were then superimposed on the base volumes for each of the defined scenarios to produce design volumes. The traffic design volumes for each scenario can be found in Appendix D.

5.0 Intersection Performance Analysis

The performance of an intersection can be evaluated using a number of measures of effectiveness. Delay and level of service (LOS), volume-to-capacity ratio (v/c) and vehicle queuing are the primary measures of effectiveness used in traffic analyses.

Delay is defined in the Highway Capacity Manual as the additional travel time experienced by a motor vehicle, pedestrian or cyclist attributable to the presence of traffic control (unsignalized or signalized intersection) and conflicting traffic. Delay is used as the basis to calculate LOS, a qualitative measure used to describe operational conditions based on service measures such as freedom to maneuver, travel time, speed, and traffic interruptions. LOS is expressed as a scale from 'A' to 'F', where LOS A represents free flow conditions or very low delay and LOS F represents delay times that are unacceptable to motorists using

the facility. The level of service criteria for unsignalized (stop/yield controlled and roundabouts) and signalized intersections are described in Table 5.

The volume-to-capacity ratio relates the estimated traffic volume (demand volume) to the theoretical maximum volume that could be accommodated (capacity volume/adjusted saturation flow rate). As the v/c ratio approaches 1.0, the movement has reduced ability to accommodate any additional volume of traffic.

Vehicle queuing at intersections is critical to the performance of the network. The 95th percentile queue length is typically used to determine if sufficient vehicle storage is available to maintain efficient traffic flow. The 95th percentile queue length is the length of queue which is exceeded only 5 percent of the time.

Table 5: LOS Criteria Signalized and Unsignalized Intersections

LOS	Level of Service (LOS) Description	Signalized Intersection Control Delay	Unsignalized Intersection Control Delay
A	Very low delay. Majority of through traffic on main street does not stop at all. **(Excellent)**	≤ 10 sec/veh	≤ 10 sec/veh
B	Somewhat higher delay. More vehicles have to stop for red lights. **(Very Good)**	10-20 sec/veh	10-15 sec/veh
C	Higher level of congestion and vehicles wait through more than one signal indication, occasionally backups may develop, however traffic flow is still stable and acceptable. **(Good)**	20-35 sec/veh	15-25 sec/veh
D	Congestion is noticeable and delays may become extensive. Most cars have to wait more than one red light to pass. This threshold is the upper limit for design. **(Satisfactory)**	35-55 sec/veh	25-35 sec/veh
E	Congested conditions. Traffic fills intersection capacity with long queues and delays. Many vehicles need to wait more than one green indication. The LOS is nearing capacity and is unsatisfactory. **(Unsatisfactory)**	55-80 sec/veh	35-50 sec/veh
F	Very congested conditions. Traffic demand exceeds capacity of the intersection with very long queues and delays. The LOS is generally considered to be unacceptable. **(Unacceptable)**	≥ 80 sec/veh	≥ 50 sec/veh

The Synchro Studio (Version 10) software package was used as the primary evaluation tool. Synchro, an analysis and optimization software package, was used to analyze network intersections based on the methodology of the *Highway Capacity Manual* 6th edition (2016) published by the Transportation Research Board. SimTraffic, the micro-simulation component of the software package, was also used in the course of the analysis to check delay, illustrate and identify interactions between individual driver types and to illustrate the effects of adjacent or closely spaced intersections.

The combination of the two components within the software allows the analyst to review the intersections using two different approaches. The Synchro software models each intersection in isolation, while the SimTraffic software analyzes the network as a whole. SimTraffic will identify external influences on intersections such as spillbacks from upstream and/or downstream intersections include in the model. Synchro Studio was used to analyze signalized and unsignalized intersections (stop controlled).

The Junctions 8 ARCADY software was used to analyze roundabouts. ARCADY uses an empirical model based on the application of statistical regression of a large data set of observed roundabout operations in the United Kingdom. The tool is intended to aid designers in selecting the best geometry for a given location and traffic demand.

Three assessment scenarios were performed to quantify the impact of the future development on the Town's road network, including:

- Scenario 1: Existing Conditions (2017)
- Scenario 2: Five-year Development Projection (2022)
- Scenario 3: Ten-year Development Projection (2027)

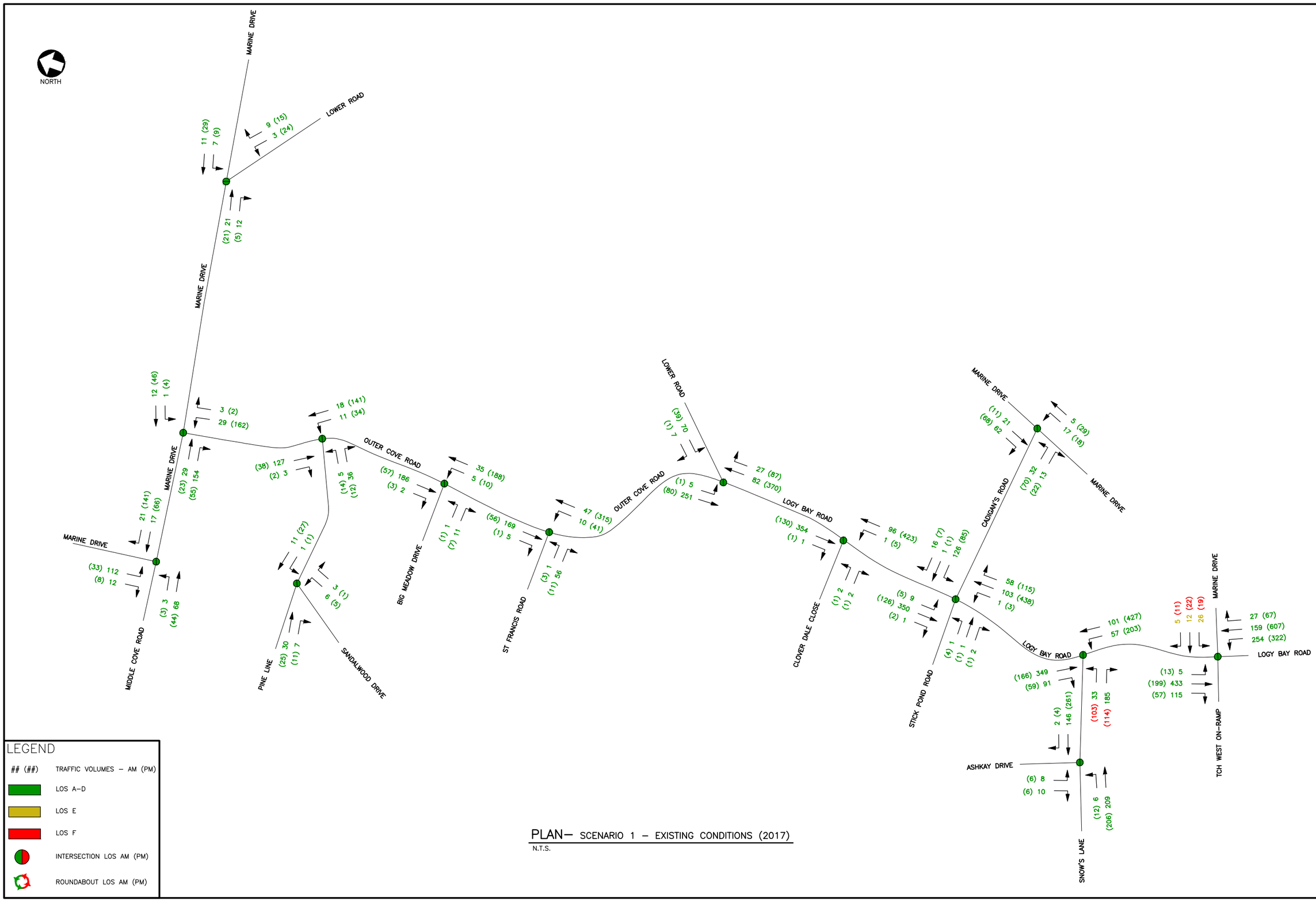
5.1 Scenario 1: Existing Conditions (2017)

Scenario 1 is an assessment of current operations in the study area. The traffic counts collected in 2017 and existing lane configurations were used to reflect existing conditions.

The Synchro level of service conditions for the AM and PM peak hours of Scenario 1 are shown in Figure 5. Results of the Synchro and SimTraffic analyses including LOS, average delay per vehicle, v/c ratio and 95th percentile queue lengths of each approach movement at the individual intersections are summarized in Tables provided in Appendix E. The detailed Synchro/SimTraffic reports can be found in Appendix F. Results of the Synchro analysis show operational problems at two of the fourteen study intersections during the peak hours.

- Logy Bay Road and Marine Drive/ORR On-Ramp: The westbound movements (Marine Drive approach) operate at a LOS E during the AM peak hour. During the PM peak hour, the westbound movements operate at LOS F and experience on average over 1.5 minutes of delay per vehicle. The overall intersection operates at acceptable levels of service during both peak hours.
- Logy Bay Road and Snow's Lane: The intersection operates at acceptable levels of service during the AM peak hour. During the PM peak hour, the eastbound movements (Snow's Lane approach) operate at LOS F and experience on average over 1.0 minute of delay per vehicle. The overall intersection operates at an acceptable level of service during the PM peak hour. It should be noted that the SimTraffic analysis shows 95th percentile queue lengths in the PM peak hour that exceed the storage capability of the northbound left-turn lane on Logy Bay Road.

Results of the SimTraffic analysis show all study intersections operating at acceptable levels of service during both peak hours.



PLAN– SCENARIO 1 – EXISTING CONDITIONS (2017)

N.T.S.

5.1.1 Traffic Signal Warrant Analysis

The Transportation Association of Canada's (TAC) developed the Canadian Traffic Signal Warrant Matrix Procedure in 2005 to provide a basis for making rational, defensible decisions on the installation of traffic signals. The matrix uses a "cumulative factors methodology" to evaluate vehicle to vehicle and vehicle to pedestrian interactions while considering local factors such as demographics and roadway characteristics. The procedure also incorporates collision prediction theory which anticipates the amount of collisions based on traffic volume and intersection geometry. However, it should be noted that some of the data required for this warrant procedure is subjective in nature, such as the intersection being located "near a school". The matrix provides a final score for the intersection, in order for traffic signals to be considered an intersection must score 100 priority points or more. A traffic signal installation would be deemed unwarranted if the scoring is less than 100 points.

The Traffic Signal Warrant Matrix was used to evaluate if traffic signals should be considered at any of the fourteen study intersections. The priority point results are listed below, none of the intersections warrant traffic signals. The traffic signal warrant analysis sheets can be found in Appendix G.

1. Marine Drive & Middle Cove Road = 3 points
2. Marine Drive & Outer Cove Road = 4 points
3. Marine Drive & Lower Road = 0 points
4. Outer Cove Road & Pine Line = 1 point
5. Pine Line & Sandalwood Drive = 0 points
6. Outer Cove Road & Big Meadow Drive = 1 point
7. Outer Cove Road & St. Francis Road = 1 point
8. Logy Bay Road & Outer Cove Road/Lower Road = 6 points
9. Logy Bay Road & Clover Dale Close = 0 points
10. Logy Bay Road & Cadigan's Road = 25 points
11. Marine Drive & Cadigan's Road = 2 points
12. Logy Bay Road & Snow's Lane = 40 points
13. Snow's Lane & Ashkay Drive = 2 points
14. Logy Bay Road & Marine Drive/ORR On-Ramp = 72 points

5.1.2 Left-turn Lane Warrants Analysis

Left-turning movements on two-way streets can cause both operational and safety problems. Operational problems occur when a left-turning vehicle is required to stop and wait for an opportunity to turn across heavy opposing traffic, creating a queue of stopped vehicles. Safety problems include rear end collisions when a left-turning vehicle is stopped or head-on or right-angle collisions when a left-turning vehicle is making its left turn. In some instances, a left-turn storage may be required to remove left-turning vehicles from the through traffic as they decelerate and wait to complete their maneuver.

The Ministry of Transportation of Ontario (MTO) developed a methodology published in the *Geometric Design Standards for Ontario Highways Manual* that uses a series nomographs to identify if a left-turn lane is warranted. The nomograph consider factors such as speed, advancing volumes, left-turn volume as a percentage of advancing volumes and opposing volumes. A left-turn lane warrants analysis was completed

for each of the fourteen unsignalized intersections, warrant calculations can be found in Appendix H. Left-turn lanes are warranted at the following intersections:

- Logy Bay Road and Marine Drive/ORR On-Ramp: Left-turn lanes are warranted on Logy Bay Road in both the northbound and southbound directions. Left-turn lanes already exist in both directions and provided the minimum storage length required.
- Logy Bay Road and Snow's Lane: A left-turn lane with a minimum storage length of 25 metres is warranted on the northbound approach of Logy Bay Road. While there is an existing left-turn lane, the lane only provides approximately 15 metres of storage length which is insufficient based on the volumes observed at the intersection.

5.1.3 Right-turn Lane Warrants Analysis

Right-turning movements on two-way streets can cause both operational and safety problems. Operational problems occur when a vehicle is required to slow down before making a right-turn. Safety problems include rear end collisions when a right-turning vehicle slows down. In some instances, a right-turn storage lane may be required to remove right-turning vehicles from the through traffic and allow them to decelerate.

The Ohio Department of Transportation (ODOT) methodology developed a methodology published in the *Transportation State Highways Access Management Manual* that uses a nomograph to identify if a right-turn lane is required. The nomograph considers factors such as speed, right-turns and advancing volumes. A right-turn lane warrants analysis was completed for each of the fourteen unsignalized intersections, warrant calculations can be found in Appendix H. Right-turn lanes are warranted at the following intersections:

- Logy Bay Road and Marine Drive/ORR On-Ramp: Right-turn lanes are warranted on Logy Bay Road in both the northbound and southbound directions.
- Logy Bay Road and Snow's Lane: A right-turn lane is warranted on Logy Bay Road in the southbound direction.
- Logy Bay Road and Cadigan's Road: A right-turn lane is warranted on Logy Bay Road in the northbound direction.
- Logy Bay Road and Outer Cove Road/Lower Road: A right-turn lane is warranted on Logy Bay Road in the northbound direction.
- Marine Drive and Outer Cove Road: A right-turn lane is warranted on Marine Drive in the westbound direction.
- Marine Drive and Middle Cove Road: A right-turn lane is warranted on Marine Drive in the eastbound direction.

All right turn-lanes should be designed according to the TAC *Geometric Design Guide for Canadian Roads.*

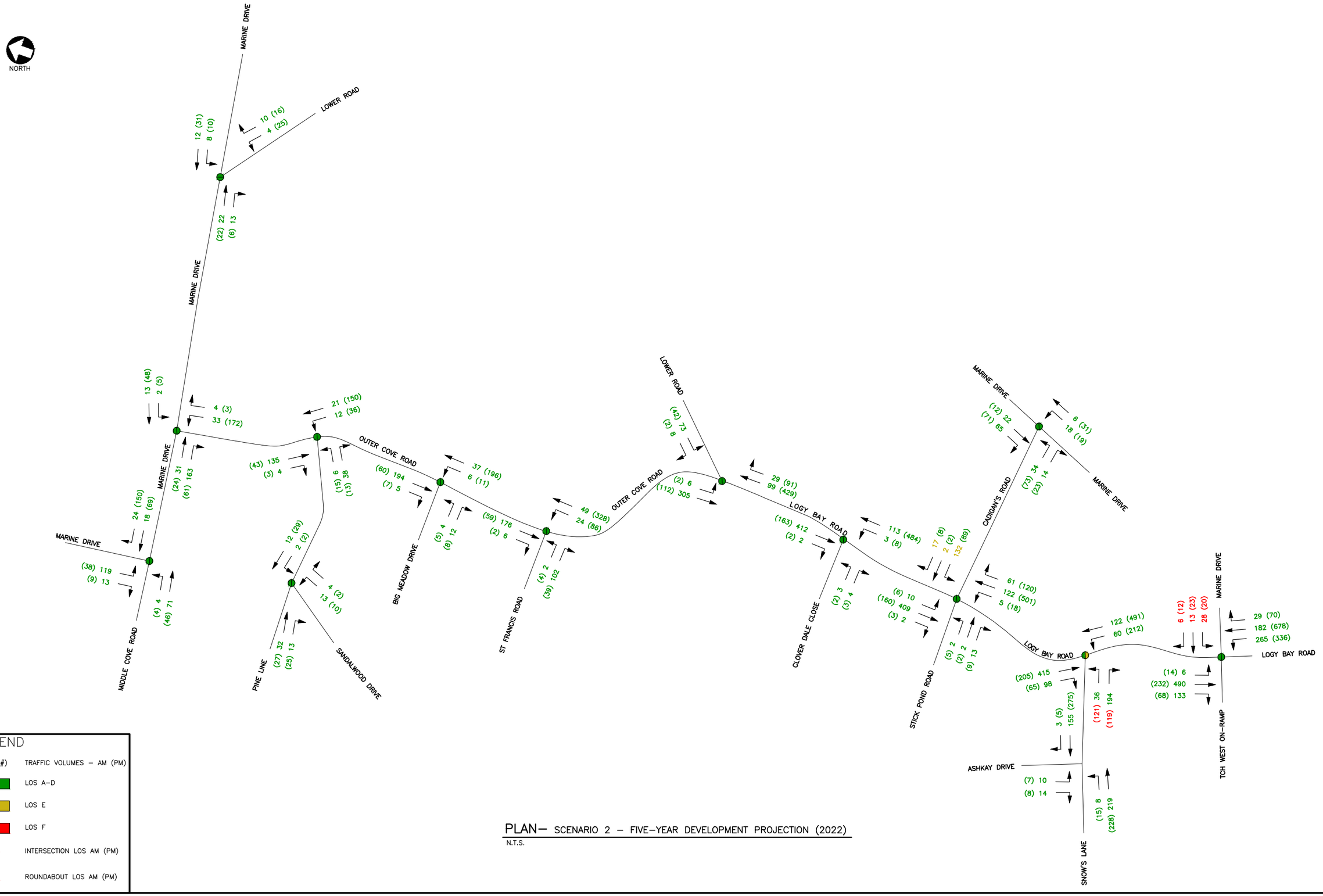
5.2 Scenario 2: Five-year Development Projection (2022)

Scenario 2 is an assessment of future operations in the study area with background traffic growth to the year 2022 and the five-year development projection. The future road network included in this scenario does not include the roadway through the Power Estate. Without a connection between the north and south development areas in the five-year scenario, traffic patterns observed in the trip distribution show that future development traffic will primarily travel along St. Francis Road and Stick Pond Road to access Logy Bay Road. It should be noted that these two roadways are currently substandard, further discussion about these roadways is provided in section 6.0.

The Synchro level of service conditions for the AM and PM peak hours of Scenario 2 are shown in Figure 6. Results of the Synchro and SimTraffic analyses including LOS, average delay per vehicle, v/c ratio and 95th percentile queue lengths of each approach movement at the individual intersections are summarized in Tables provided in Appendix E. The detailed Synchro/SimTraffic reports can be found in Appendix F. Results of the Synchro analysis show operational problems at three of the fourteen study intersections during the peak hours.

- Logy Bay Road and Marine Drive/ORR On-Ramp: The delay for the westbound movements (Marine Drive approach) deteriorates to LOS F during the AM peak hour. The westbound movements experience on average over 1.0 minute of delay per vehicle. During the PM peak hour, the westbound movements operate at LOS F and experience on average over 2.5 minutes of delay per vehicle. It should be noted that the volumes on the Marine Drive approach are approaching capacity. The overall intersection operates at acceptable levels of service during both peak hours.
- Logy Bay Road and Snow's Lane: The intersection operates at acceptable levels of service during the AM peak hour. During the PM peak hour, the eastbound movements (Snow's Lane approach) operate at LOS F and experience on average over 3.0 minutes of delay per vehicle. The overall intersection operates at LOS E during the PM peak hour. The SimTraffic analysis continues to show 95th percentile queue lengths in the PM peak hour that exceed the storage capability of the northbound left-turn lane on Logy Bay Road.
- Logy Bay Road and Cadigan's Road/Stick Pond Road: The delay for the westbound movements (Cadigan's Road approach) deteriorate to LOS E. The westbound movements experience on average over 40 seconds of delay per vehicle during the AM peak hour. The overall intersection operates at an acceptable level of service during the AM peak hour. The intersection operates at acceptable levels of service during the PM peak hour.

Results of the SimTraffic analysis show all study intersections operating at acceptable levels of service during both peak hours.



PLAN– SCENARIO 2 – FIVE–YEAR DEVELOPMENT PROJECTION (2022)

N.T.S.

5.2.1 Traffic Signal Warrant Analysis

The traffic signal warrant matrix was used to evaluate if traffic signals should be considered for the three intersections experiencing poor levels of service under the future traffic volumes for the five-year development projection.

Future volumes for the six hours were estimated by expanding the AM and PM peak hour forecast proportionally to the peak hours observed in the traffic counts. For the midday peak hour, since design volumes are not included in this study, existing volumes were factored to represent background traffic growth.

The priority point results are listed below; none of the intersections warrant traffic signals under 2022 volumes. The traffic signal warrant analysis sheets can be found in Appendix G.

- Logy Bay Road & Marine Drive/ORR On-Ramp = 89 points
- Logy Bay Road & Snow's Lane = 58 points
- Logy Bay Road & Cadigan's Road = 37 points

5.2.2 Five-year Improvements

Results of the Scenario 2 Synchro analysis indicates that with the five-year development projection, poor levels of service will be observed at three intersections. The following improvements are proposed to improve traffic operations within the Town:

- Logy Bay Road and Marine Drive/ORR On-Ramp: Future traffic volumes based on background traffic growth and development projections indicate that the intersection will be close to reaching the threshold for traffic signals in 2022. While the overall volumes at the intersection are high, the total volumes on the Marine Drive approach are less than 60 vehicles during the peak hours.

  The Synchro analysis shows that the Marine Drive approach will experience high delays in both peak hours. The SimTraffic analysis, however, indicates that the approach will experience acceptable levels of delays during both peak hours. Typically, when the results of the two analyses are different, the SimTraffic results are considered to be more representative of the expected field conditions. The intersection should be monitored to ensure that the intersection operates at acceptable levels of service as is anticipated.

  As an interim improvement, a separate left-turn lane should be provided on the Marine Drive (westbound) approach. Separating the left-turn movement from the through and right-turn movements will improve delay for both the through and right-turn movements and increase capacity on the approach.

- Logy Bay Road and Snow's Lane: The intersection should be converted to a single-lane rural roundabout. Justification for the roundabout improvement is provided under section 7.0.

- Logy Bay Road and Cadigan's Road/Stick Pond Road: A separate left-turn lane should be provided on the Cadigan's Road (westbound) approach. Separating the left-turn movement from the through and right-turn movements will improve delay for both the through and right-turn movements.

The Scenario 2 analysis was run with the five-year improvements in place. The Synchro level of service conditions for the AM and PM peak hours of Scenario 2 with Improvements are shown in Figure 7. Results of the Synchro, SimTraffic and Arcady analyses including LOS, average delay per vehicle, v/c ratio and 95th percentile queue lengths of each approach movement at the individual intersections are summarized in Tables provided in Appendix E. The detailed Synchro/SimTraffic and Arcady reports can be found in Appendix F and Appendix I.

Results of the Synchro analysis show the following improvements during the peak hours at the three study intersections with improvements in place.

- Logy Bay Road and Marine Drive/ORR On-Ramp: The westbound (Marine Drive approach) through and right-turn movements improve to LOS A during the AM peak hour. The westbound left-turn movement continues to operate at LOS F and experiences on average over 1.0 minute of delay per vehicle. During the PM peak hour, the westbound through and right-turn movements improve to LOS C. The westbound left-turn movement continues to operate at LOS F and experiences on average over 1.5 minutes of delay per vehicle. The westbound movements are no longer near capacity during the PM peak hour. The overall intersection operates at acceptable levels of service during both peak hours.
- Logy Bay Road and Snow's Lane: The intersection operates at acceptable levels of service during both peak hours.
- Logy Bay Road and Cadigan's Road/Stick Pond Road: The westbound (Cadigan's Road approach) through and right-turn movements improve to LOS B during the AM peak hour. The westbound left-turn movement continues to operate at LOS E and experiences on average over 40 seconds of delay per vehicle. The overall intersection operates at an acceptable level of service during the AM peak hour. The intersection operates at acceptable levels of service during the PM peak hour.

Results of the SimTraffic analysis show all study intersections operating at acceptable levels of service during both peak hours.

NORTH

MARINE DRIVE

LOWER ROAD

12 (31)
8 (10)

10 (16)
4 (25)

(22) 22
(6) 13

MARINE DRIVE

13 (48)
2 (5)

4 (3)
33 (172)

21 (150)
12 (36)

OUTER COVE ROAD

MARINE DRIVE

(24) 31
(61) 163

(43) 135
(3) 4

6
(15) 38
(13)

24 (150)
18 (69)

MARINE DRIVE

(38) 119
(9) 13

(4) 4
(46) 71

MIDDLE COVE ROAD

12 (29)
2 (2)

4 (2)
13 (10)

PINE LINE

(27) 32
(25) 13

SANDALWOOD DRIVE

(60) 194
(7) 5

37 (196)
6 (11)

BIG MEADOW DRIVE

(5) 4
(8) 12

(59) 176
(2) 6

49 (328)
24 (86)

ST FRANCIS ROAD

(4) 2
(39) 102

OUTER COVE ROAD

LOWER ROAD

(42) 73
(2) 8

(2) 6
(112) 305

29 (91)
99 (429)

LOGY BAY ROAD

(163) 412
(2) 2

113 (484)
3 (8)

CLOVER DALE CLOSE

(2) 3
(3) 4

(6) 10
(160) 409
(3) 2

STICK POND ROAD

(5) 2
(2) 2
(9) 13

17 (8)
2 (2)
132

CADIGAN'S ROAD

61 (120)
122 (501)
5 (18)

MARINE DRIVE

(12) 22
(71) 65

6 (31)
18 (19)

(73) 34
(23) 14

MARINE DRIVE

LOGY BAY ROAD

122 (491)
60 (212)

(205) 415
(65) 98

3 (5)
155 (275)

(121) 36
(119) 194

ASHKAY DRIVE

(7) 10
(8) 14

(15) 8
(228) 219

SNOW'S LANE

MARINE DRIVE

6 (12)
13 (23)
28 (20)

29 (70)
182 (678)
265 (336)

LOGY BAY ROAD

(14) 6
(232) 490
(68) 133

TCH WEST ON-RAMP

LEGEND

## (##)	TRAFFIC VOLUMES – AM (PM)
	LOS A–D
	LOS E
	LOS F
	INTERSECTION LOS AM (PM)
	ROUNDABOUT LOS AM (PM)

PLAN– SCENARIO 2 – FIVE–YEAR DEVELOPMENT PROJECTION WITH IMPROVEMENTS (2022)

N.T.S.

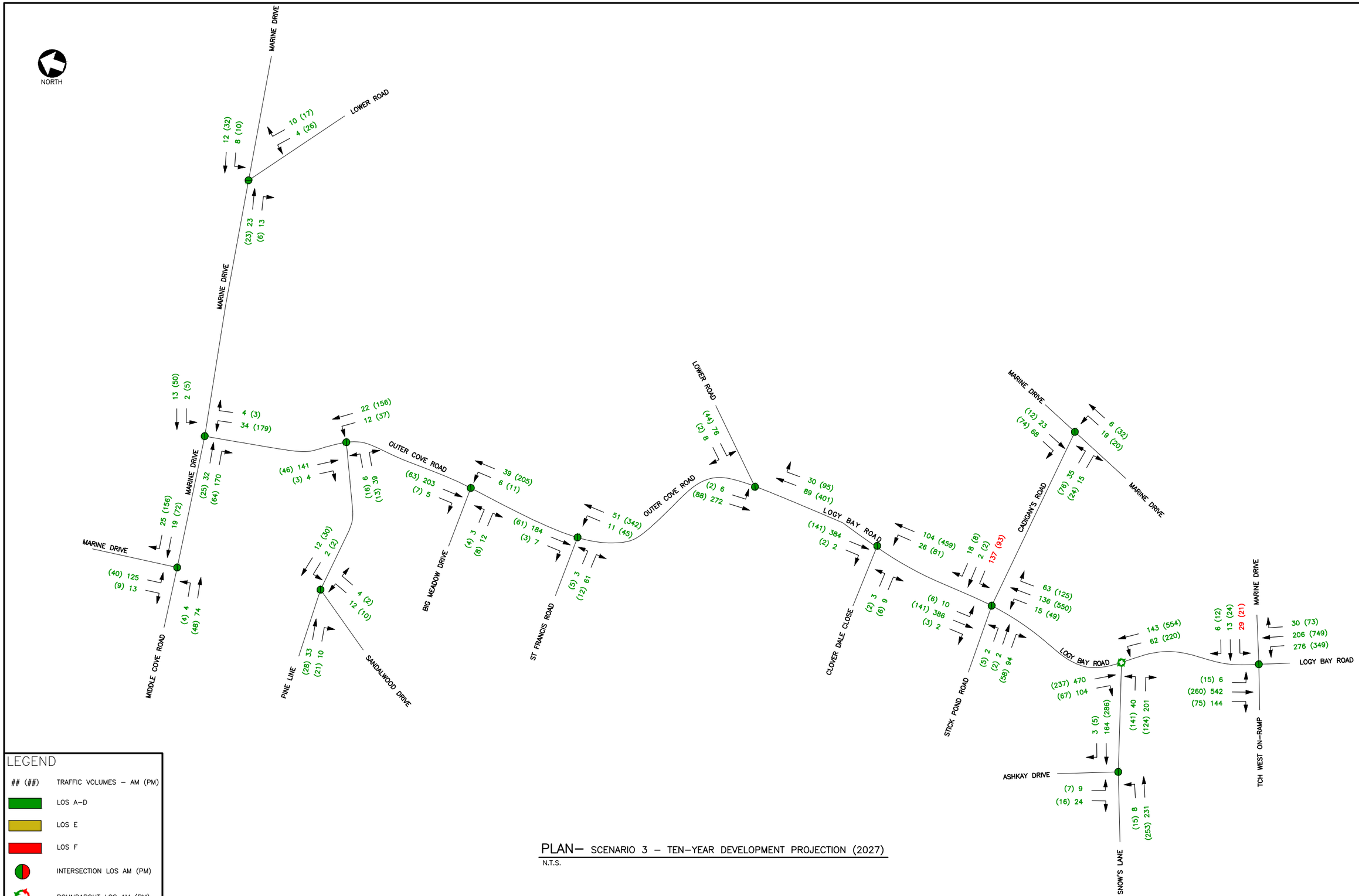
5.3 Scenario 3: Ten-year Development Projection (2027)

Scenario 3 is an assessment of future operations in the study area with background traffic growth to the year 2027 and the ten-year development projection. The road network in this scenario reflects the five-year improvements discussed in section 5.2.1 and includes the roadway connection through the Power Estate. With the connection between the north and south development areas in the ten-year scenario, traffic patterns observed in the trip distribution show that future development traffic will primarily travel along the connector roadway to the intersections of Logy Bay Road and Clover Dale Close and Logy Bay Road and Stick Pond Road/Cadigan's Road. It should be noted that this scenario does not account for the potential redistribution of existing traffic in the northern development area along the connector roadway.

The Synchro level of service conditions for the AM and PM peak hours of Scenario 3 are shown in Figure 8. Results of the Synchro, SimTraffic and Arcady analyses including LOS, average delay per vehicle, v/c ratio and 95th percentile queue lengths of each approach movement at the individual intersections are summarized in Tables provided in Appendix E. The detailed Synchro/SimTraffic and Arcady reports can be found in Appendix F and Appendix I. Results of the analysis show operational problems at two of the fourteen study intersections during the peak hours.

- Logy Bay Road and Marine Drive/ORR On-Ramp: The westbound (Marine Drive approach) left-turn movement operates at LOS F and experiences on average over 1.5 minutes of delay per vehicle during the AM peak hour. During the PM peak hour, the westbound left-turn movement operates at LOS F and experiences on average over 3.0 minutes of delay per vehicle. The overall intersection operates at acceptable levels of service during both peak hours. It should be noted that SimTraffic results show the westbound left-turn movement operating at LOS E during the PM peak hour. All other movements operate at acceptable levels of service in SimTraffic during both peak hours.
- Logy Bay Road and Cadigan's Road/Stick Pond Road: The westbound (Cadigan's Road approach) left-turn movement deteriorates to LOS F and experiences on average over 3.0 minutes of delay per vehicle during the AM peak hour. The westbound left-turn movement is over capacity. The westbound left-turn movement deteriorates to LOS F and experiences on average over 1.0 minute of delay per vehicle during the PM peak hour. The overall intersection operates at acceptable levels of service during both peak hours. It should be noted that SimTraffic results show the eastbound (Stick Pond Road approach) left-turn movement operating at LOS E during the AM peak hour. All other movements operate at acceptable levels of service in SimTraffic during both peak hours.

Results of the SimTraffic analysis show all other study intersections operating at acceptable levels of service during both peak hours.



PLAN– SCENARIO 3 – TEN–YEAR DEVELOPMENT PROJECTION (2027)

N.T.S.

5.3.1 Traffic Signal Warrant Analysis

The traffic signal warrant matrix was used to evaluate if traffic signals should be considered for the three intersections experiencing poor levels of service under the future traffic volumes for the five-year development projection. Future volumes for the six hours were based on expanding the AM and PM peak hour forecast proportionally to the peak hours observed in the traffic counts. For the midday peak hour, since design volumes are not included in this study, existing volumes were factored to represent background traffic growth.

The priority point results are listed below, the intersection of Logy Bay Road and Marine Drive/ORR On-Ramp warrants traffic signals under 2027 volumes. The traffic signal warrant analysis sheets can be found in Appendix G.

- Logy Bay Road & Marine Drive/ORR On-Ramp = 101 points
- Logy Bay Road & Snow's Lane = 69 points
- Logy Bay Road & Cadigan's Road = 46 points

5.3.2 Ten-year Improvements

Results of the Scenario 3 analysis indicates that with the ten-year development projection poor levels of service will be observed at two intersections. The following improvements are proposed to improve traffic operations within the Town:

- Logy Bay Road and Marine Drive/ORR On-Ramp: Future traffic volumes based on background traffic growth and development projections indicate that the intersection will reach the threshold for traffic signals in 2027. While the overall volumes at the intersection are high, the volumes on the Marine Drive approach are still less than 60 vehicles during the peak hours.

  As previously indicated, based on the SimTraffic analysis it is unlikely that high delays will materialize. The left-turn movement on Marine Drive may begin to experience some longer delays, however, due to the small proportion of left-turn volumes this does not justify installing a traffic signal.

  The intersection should continue be monitored to ensure that the intersection operates at acceptable levels of service as is anticipated. If high delays are observed, then conversations must occur with the Provincial Government and/or the City of St. John's to discuss any future improvements to the intersection. The intersection should not be signalized without giving consideration to signalizing the intersection of Logy Bay Road and ORR Off-Ramp, located approximately 200 m to the south in the City of St. John's. The interactions between the two intersections should be assessed.

- Logy Bay Road and Cadigan's Road/Stick Pond Road: A separate left-turn lane should be provided on the Stick Pond Road (eastbound) approach. Separating the left-turn movement from the through and right-turn movements will improve delay for both the through and right-turn movements.

6.0 Road Network Review

The proposed road network for the study area was reviewed to ensure that a safe, efficient and well-connected road network is achieved throughout the Town. The primary routes entering/exiting the Town are:

- Logy Bay Road from the City of St. John's to the South
- Marine Drive from the Town of Torbay to the North
- Snow's Lane from the City of St. John's to the West
- Pine Line from the Town of Torbay to the West
- Middle Cove Road from the Town of Torbay to the West

The road network in the Town has, for the most part, evolved in an unplanned manner following established travel paths and property lines as the town developed and grew. The Town's Municipal Plan classifies Logy Bay Road as a Collector Road intended to collect traffic from or distribute traffic to local roads. Direct access to abutting properties is permitted in accordance with the Town's standards. Marine Lab Road and Marine Drive are classified as Scenic Roads. These roads are intended primarily to be scenic routes. Direct access to the abutting land is permitted in accordance with the Town's standards. The Municipal Plan indicates that Council shall continue to seek the cooperation of the Department of Transportation to develop roadside parking areas in conjunction with development of the proposed scenic outlooks. All remaining roads within the Town are currently classified as Local Roads, the primary purpose of which are to provide direct access is permitted to abutting properties.

An updated road classification system is proposed in Section 6.3. It is important that consistency be maintained throughout the Town's documentation (i.e. Municipal Plan, Development Regulations, Development Standards, etc.).

6.1 Proposed Road Network

The Town is taking a proactive approach to planning for future development and has at times considered various development plans for the future road network. At least three different conceptual plans for a proposed road layout have been shown in various documents.

All three plans, shown in the following figures, have some components in common and some components that vary. Either of the three plans will present the same outcomes with respect to trip generation/anticipated traffic volumes and trip distribution on the existing connecting streets – Logy Bay Road, Outer Cove Road, Pine Line and Snow's Lane.

As previously discussed for modeling purposes, Concept 1 by Pinnacle Engineering (Figure 9) was used as it was the most recently prepared/up to date plan. Again, it is stressed that the differences between the proposed street layouts results in no overall difference in the modelling outcomes with respect to traffic volumes and patterns on the existing street network. Either scenario could have been used. It is also acknowledged that the Town has not selected or approved a final or definitive street layout at this point in time.

Concept 1 shows connections to the following existing streets:

- Skip's Place
- Stick Pond Road/Clovelly Lane
- Cloverdale Close
- St. Francis Road
- Killick Drive
- Middle Ledge Drive
- Pine Line

Alternatively, Concept 2 shows connections to Power's Lane and a new street just south of Cloverdale Close.

Concept 1 shows the extension of Sandalwood Drive, Middle Ledge Drive and a new street just south of Middle Ledge Drive to be cul-de-sacs, while Concept 2 shows these three streets to be interconnected with no cul-de-sac treatment on either street. Concept 3 includes elements of both Concepts 1 & 2.

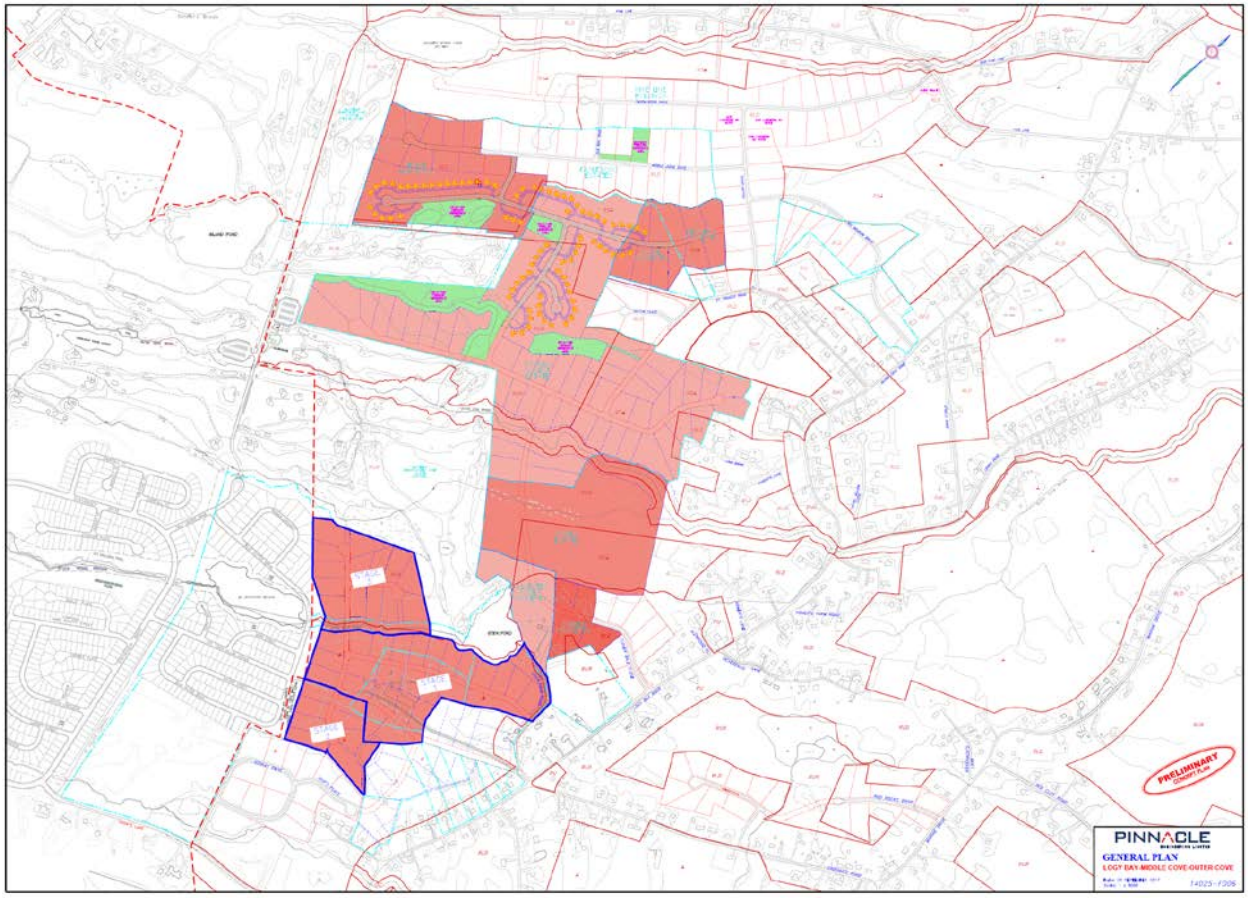


Figure 9: Concept 1 by Pinnacle Engineering

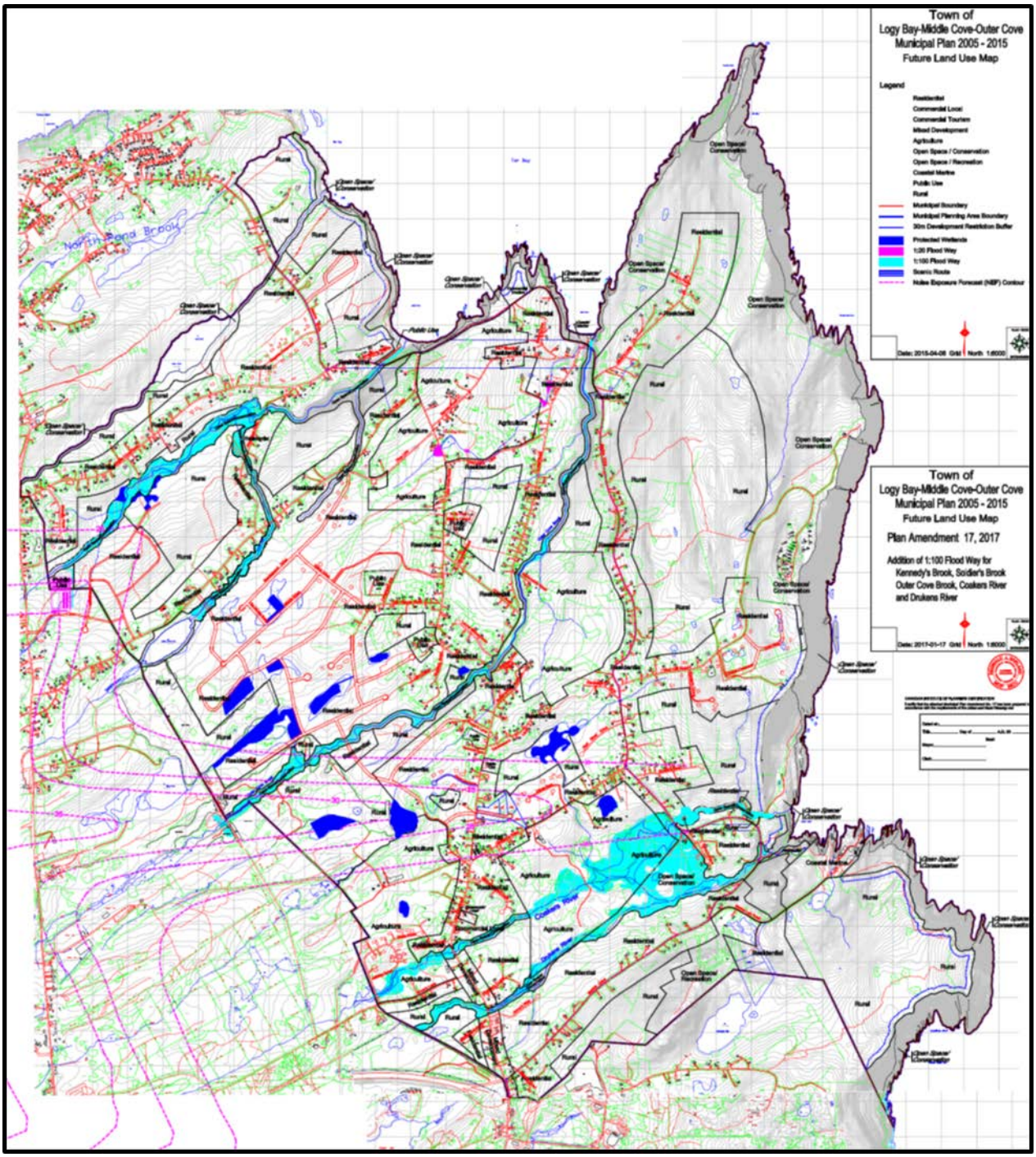


Figure 10: Concept 2 as reflected in the Town's Municipal Plan Amendment No. 17 and Development Regulations Zoning Amendment No. 23

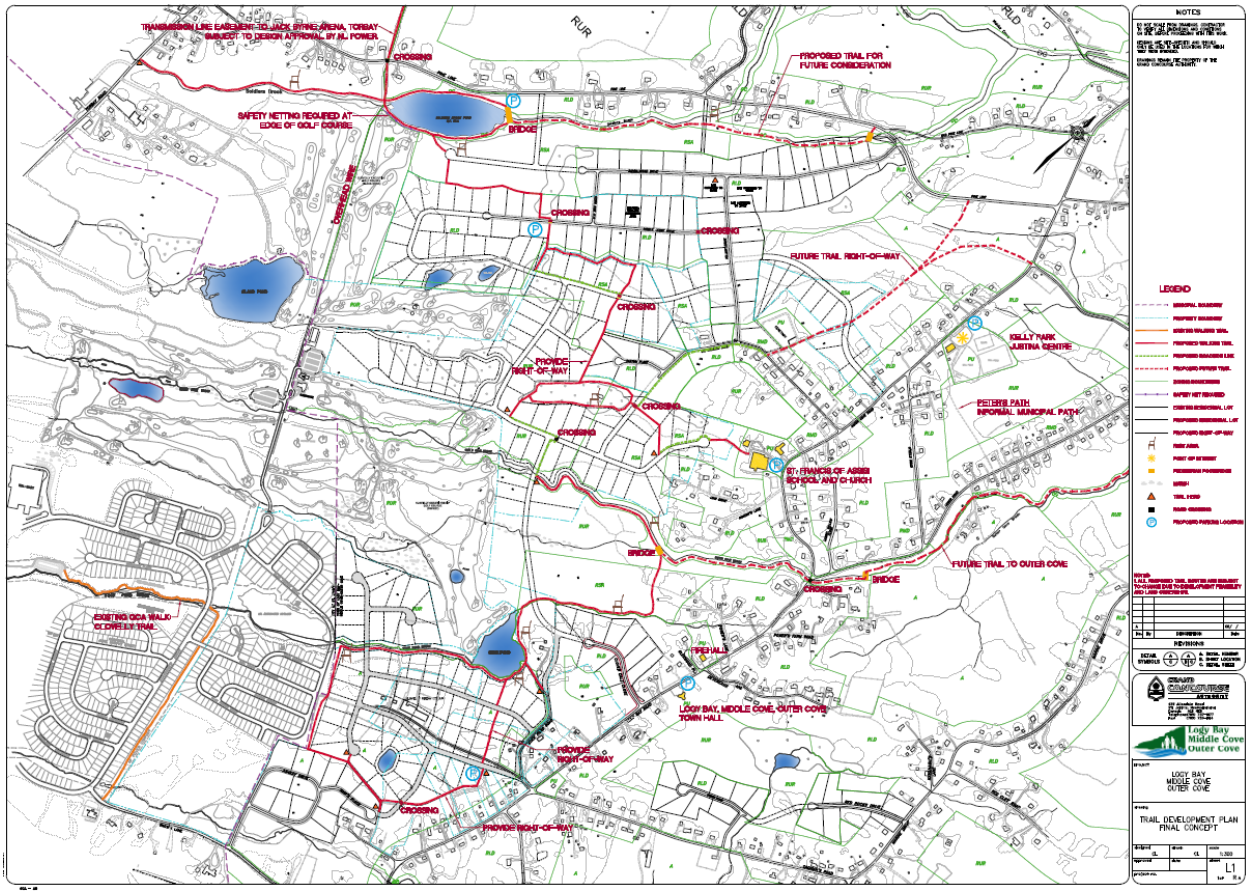


Figure 11: Concept 3 as reflected on the Town's Trail Development Plan

The traffic volumes anticipated to result from the development of the study area were discussed in Section 4.0. Generally, the volumes are such that the Town can consider multiple alternatives with respect to the proposed street network and associated connections to existing streets. There are however some important considerations:

1. The concept plans incorporate a number of cul-de-sacs. Cul-de-sacs are generally preferred from a residential/real estate perspective. They are viewed as being safer or more 'family friendly' as there is no through traffic and lots in the bulb are generally bigger which allow for larger yards. Connected streets are generally preferable from a pedestrian/cycling point of view and from an emergency services and public transportation point of view (bus routes, ease of access, etc.). Some municipalities also prefer connectivity to benefit snow clearing and garbage collection operations. For snow clearing, cul-de-sacs often represent additional time and expense for municipalities due to the nature of clearing the bulb. For garbage collection, both sides of the street have to be serviced in any case and there is little difference in route planning/efficiency. The acceptance of cul-de-sacs as they relate to development is generally a Municipal preference. The Town's *Municipal Engineering Residential Subdivision Standards* indicate that "cul-de-sacs are restricted and used only where land access is not possible by through streets. The use of a cul-de-sac shall be approved by the Town". As indicated above, Sandalwood Drive, Middle Ledge Drive and a new street just south of Middle Ledge Drive are shown in Concept 1 to be cul-de-sacs. While connection of these three streets will result in some efficiencies and is preferable from an access and emergency services point of view, cul-de-sacs can also be developed to meet the Town's standards.

2. All concept plans show a secondary connection between Sandalwood Drive and Pine Line. As indicated in Section 5.0, this connection is not required from a traffic volume perspective. However, from a connectivity perspective, this secondary connection is desirable. It is noted that any street between Sandalwood and Pine Line will require a properly designed stream crossing.

3. St. Francis Road is an attractive route in both the 5-year and 10-year study horizons. This street should be considered for future upgrades. TAC recommends a minimum lane width of 3.5m for a rural street cross section. It is recommended that the Town adopt a 7.0m wide asphalt cross section for future development and upgrades, more discussion regarding cross sections is provided in Section 6.2. A minimum 1.2m wide shoulder on at least one side of St. Francis Road would improve the walkability of this street for pedestrians.

4. In each concept plan, Stick Pond Road is shown as a connection to the proposed street network. Each concept shows slight variations in the alignment of Stick Pond Road and, as per Item 7 below, the proposed intersection of Stick Pond Road and Clovelly Lane will have to be revised. This street will require upgrading which should be a condition of development at such time that further development occurs. A road width of 7m should be considered with a 1.2m wide shoulder.

5. While not shown on Concept 1 a connection to, or extension of, Power's Lane is likely at some point in the future. If/when this does occur, Power's Lane will require upgrading and should be a condition of development at such time that further development occurs. Again, a road width of 7m should be considered with a 1.2m wide shoulder. There is also an existing stream crossing on Power's Lane that will require upgrading.

6. A new north-south street is proposed that connects the proposed developments south of Outer Cove Brook and those north of Outer Cove Brook. This link becomes an attractive route when it is completed on the 10-year study horizon. It is noted that this street will require two stream crossings. In Concepts 1 and 3, this road is shown to connect to Logy Bay Road via Clover Dale Close with a secondary connection to Stick Pond Road. In Concept 2, it is shown to connect to Logy Bay Road via Stick Pond Road with secondary connections to Powers Lane and a new connection just South of Clover Dale Close. Again, there are multiple alternatives which can be considered.

7. There are some minor geometric issues in each of the proposed concept plans with respect to intersection alignments. The proposed geometry at the intersection of Stick Pond Road and Clovelly Lane, shown in all three concepts is less than ideal. Further consideration must be given to the alignment of this intersection at the detailed design stage of any future proposed development in this area.

8. Consideration was given to an additional roadway connection between the Town and the City of St. John's through the municipal boundary along the west side of the study area. Such a connection is not required from a traffic perspective and would likely be undesirable for existing residents in both municipalities as it could potentially attract traffic that would otherwise use Snow's Lane to travel to/from the Stavanger Drive retail/commercial area.

9. Snow's Lane requires upgrades which are further addressed in Section 7.0.

At this point, the Town has the option of establishing a 'set' road network or establishing a more general conceptual road network and leaving the option for some changes to be proposed by prospective developers. Policies 13 (Residential Subdivisions) and 14 (Area Concept Plans) in Section 4.4.1 - *Specific Land Use Policies – Residential* of the Town's Municipal Plan, specifically address the Town's expectations

of developers in this regard and can generally be adhered to in developing a 'final' development plan for the study area. From a traffic volume perspective, it has been determined that traffic can be accommodated for the full build-out of the area without many significant impacts on the existing network. Whatever route the Town decides to take with respect to establishing a set road network or a more flexible conceptual network, it is important that one plan be reflected in all of the Town's documents. At present, multiple concepts have been developed by various interests and it is important for the Town to maintain consistency in this regard.

6.2 Cross Sections

Standard cross sections were prepared for local and collectors roadways, the cross sections were developed based on the TAC *Geometric Design Guide for Canadian Roads*.

The typical cross sections for a local roadway are shown in Figure 12. The cross section for a two-lane local roadway includes a 3.5 m travel lane in each direction and 1.0 m shoulders on each side with 4 to 1 slopes. The cross section for a two-lane local roadway with an exclusive left turn lane includes a 3.5 m through travel lane in each direction, a 3.0 m left turn lane and 1.0 m shoulders on each side with 4 to 1 slopes.

The Town has indicated the desire to remain rural in nature and create a system of off-road active transportation trails rather than install sidewalks. In areas where it may be difficult to incorporate trails, walkable shoulders should be implemented as an alternative to sidewalks and trails.

The typical cross section for a two-lane local roadway with a walkable shoulder is shown in Figure 13. The cross section includes a 2.2 m shoulder on one side and a 1.0 m shoulder on the other side, both with 4 to 1 slopes. The 2.2 m shoulder provides a 1.2 m walkable shoulder, the minimum width required to accommodate a single pedestrian, and a 1.0 metre of buffer space to the edge of the travel lane.

The typical cross sections for a collector roadway are shown in Figure 14. The cross section for a two-lane collector roadway includes a 3.5 m travel lane in each direction and 1.0 m shoulders on each side with 3 to 1 slopes. The cross section for a two-lane collector roadway with an exclusive left turn lane includes a 3.5 m through travel lane in each direction, a 3.0 m left turn lane and 1.0 m shoulders on each side with 3 to 1 slopes.

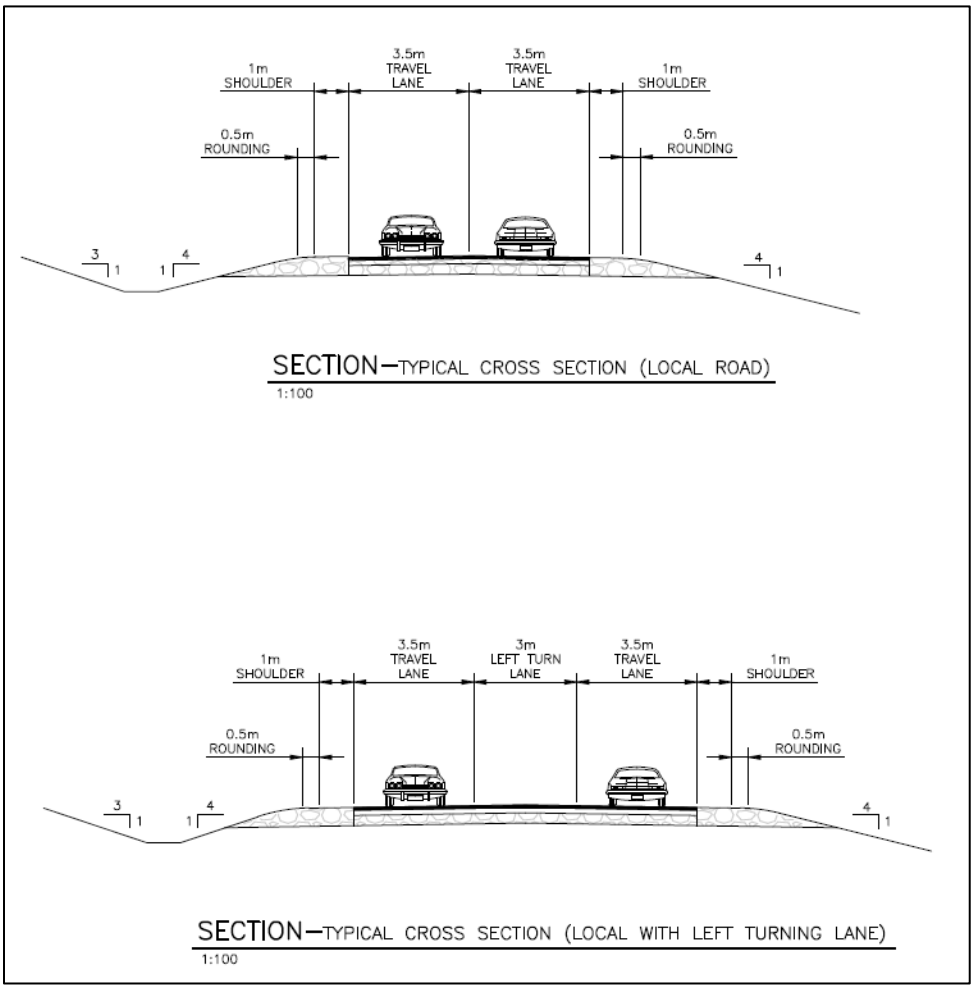


Figure 12: Typical cross sections for a local roadway

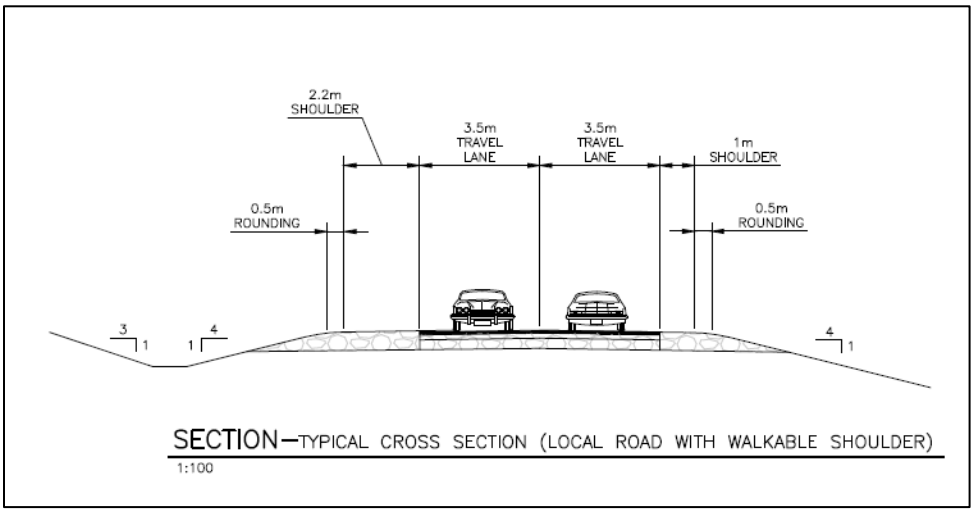


Figure 13: Typical cross sections for a local roadway with a walkable shoulder

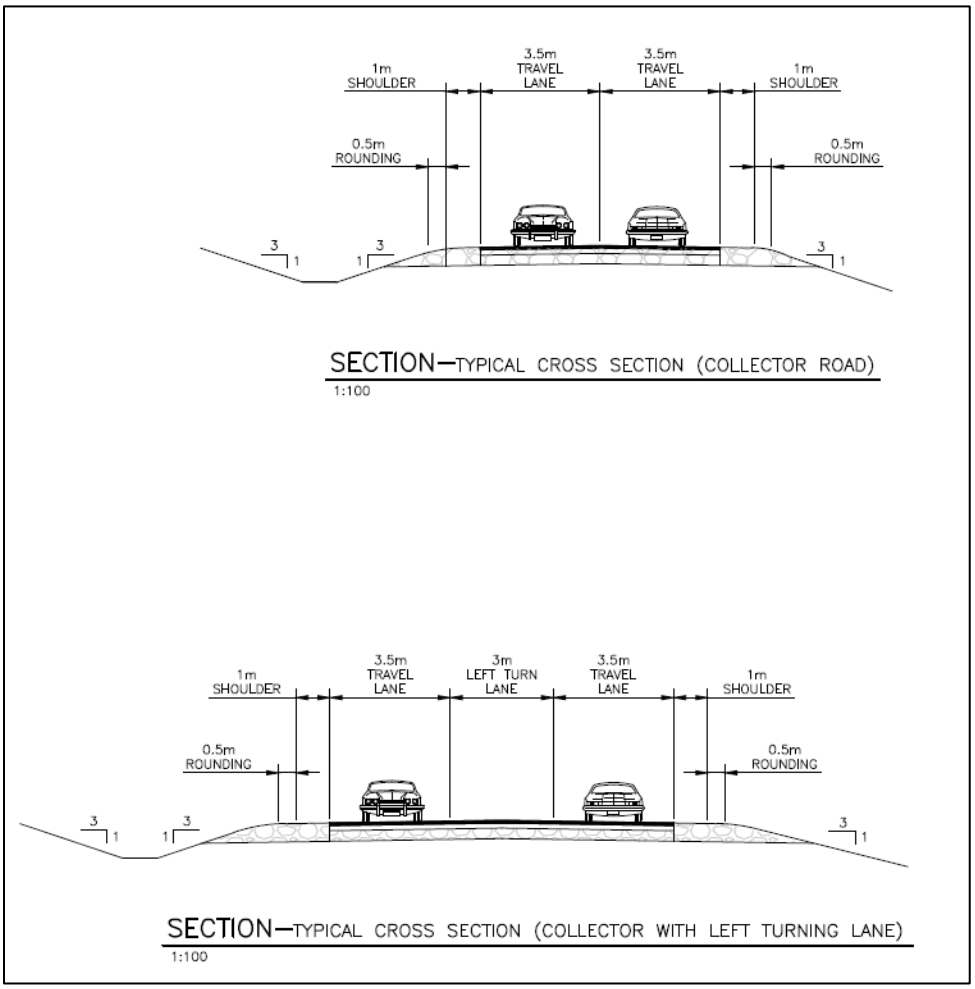


Figure 14: Typical cross sections for a collector roadway

6.3 Roadway Classification System

The Town's municipal plan outlines a roadway classification system that includes local roads, collector roads and scenic roads. Logy Bay Road is identified as the only collector road, Marine Drive and Marine Lab Road are classified as scenic roads and all other roadways are local roads.

The existing classification system does not align with TAC's guidelines for roadways classifications outlined in the *Geometric Design Guide for Canadian Roads*. The roadway classification system was updated to reflect TAC's rural road classification system. The classification system classifies rural roadways into four categories:

- Freeways – A freeway is a major highway with controlled access.
- Arterial Roadways - The primary function of an arterial roadway is to move traffic within the road network system.
- Collector Roadways - Roadways classified as collector roadways are designed and intended to provide access to adjacent properties that are balanced by the need to collect and distribute traffic travelling to and from a neighbourhood.
- Local Roadways - The primary function of a local roadway is to provide access to adjacent properties. Local residential streets are not intended for use as through traffic routes.

The roadway characteristics utilized in the TAC's rural road classification system were compiled for all roadways in the Town of LBMCOC. Detailed information for individual roadways can be found in Appendix J. Characteristics for each roadway include:

- Traffic service function
- Land service/access
- Traffic volumes (select locations only)
- Flow characteristic
- Date of traffic count (select locations only)
- 85th percentile speed (select locations only)
- Speed limit (The NL Highway Traffic Act states that if not otherwise posted, the speed limit is of 50 km/hr on through settlements and 80km/hr on paved highways)
- Accommodation of cyclists
- Accommodation of pedestrians
- Parking
- Right-of-way (not populated)
- Owner

Using these characteristics, each roadway within the Town was reviewed and classified according to TAC's rural road classification system. The recommended roadway classification for the Town is provided in Table 6. It should be noted that there are no roadways classified as freeways or arterial roadways within the Town's boundary. Five roadways were identified as collector roadways. A roadway classification map depicting the classification was prepared; the full-size map can be found in Appendix J.

Table 6: Roadway classification for LBMCOC

Freeways	Arterial Roadways	Collector Roadways	Local Roadways
None	None	Logy Bay Road Marine Drive Middle Cove Road Outer Cove Road Snow's Lane	All other roadways

6.4 Emergency Response Times

The SJRFD response times to all areas of the Town were modelled for existing traffic conditions and the ten-year planning horizon with the proposed road network in place. The SJRFD indicated that the current response time from Kent's Pond Station No. 6 to the Town boundary on Logy Bay Road is 4 minutes and 33 seconds (based on NFPA 1710).

The version of the St. John's Regional PTV Visum models updated and calibrated for the Town of LBMCOC were used to establish travel times from the Town boundary on Logy Bay Road. Isochrones maps were developed showing the constrained travel times from the point of entry in color coded increments of two minutes. The constrained travel time is based on congestion conditions observed using the model's peak hour volumes.

The travel time for the AM and PM peak hours of existing traffic conditions are displayed in Figure 15. All areas of the Town can be accessed from the Town boundary on Logy Bay Road in ten minutes or less. An

additional 4 minutes and 33 seconds of response time from the station to the Town boundary must be added to the maps' response time to obtain total response time from the station.

The travel times for the AM and PM peak hours of future traffic conditions (ten-year horizon) with the proposed road network are displayed in Figure 16. All areas of the Town will still be accessible from the Town boundary on Logy Bay Road in ten minutes or less. An additional 4 minutes and 33 seconds of response time from the station to the Town boundary must be added to the maps' response time to obtain total response time from the station. With the connection through the Power Estate, all areas of the proposed road network are accessible from the Town boundary on Logy Bay Road within four to eight minutes.

The SJRFD indicated that there are have been preliminary discussions regarding a new fire station in the east end of the City of St. John's, which will likely be located closer to the Town. There are currently no confirmed plans with respect to the location and or probable construction date. Some areas which have been preliminarily considered as possible locations include Snow's Lane, the Aberdeen Avenue Extension Area, Hebron Way Area and Torbay Road. It is unlikely that a new station, if approved, would be constructed within the next 5 years. It is recommended, that the Town maintain close contact with the SJRFD in this regard to ensure that the new location is in the mutual best interests of both the SJRFD and the Town.

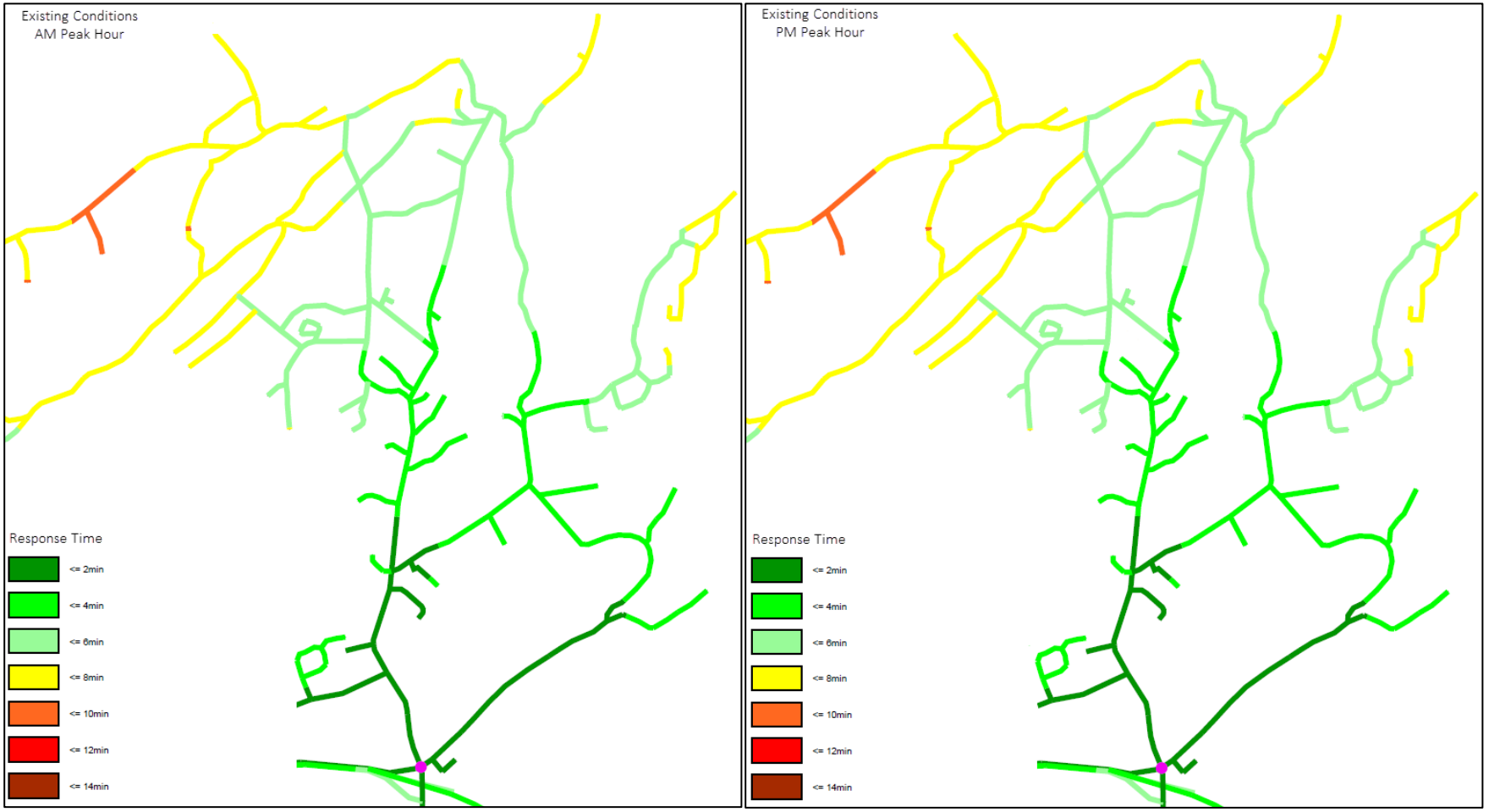


Figure 15: Travel times from the Town boundary on Logy Bay Road under existing traffic conditions

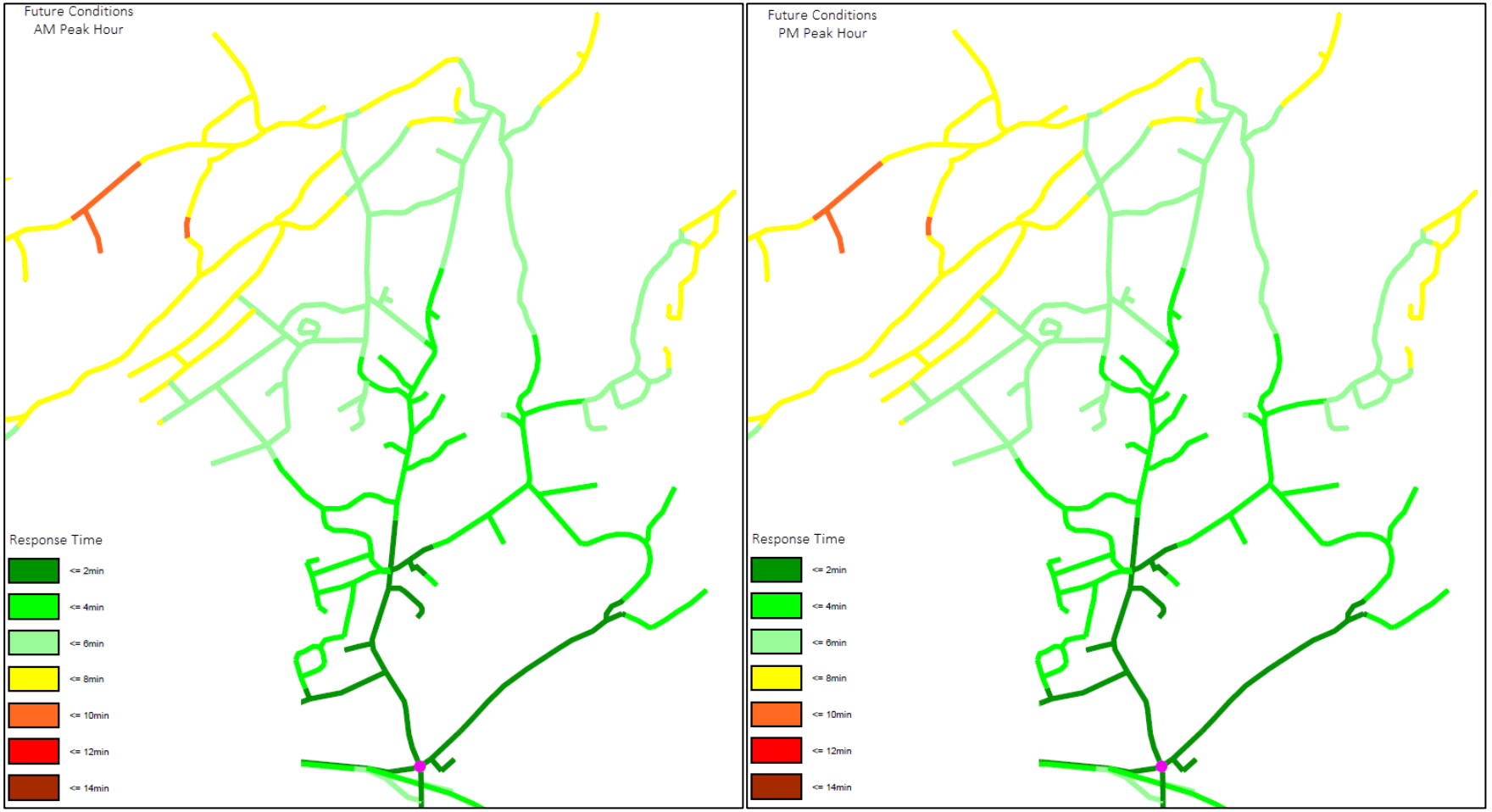


Figure 16: Travel times from the Town boundary on Logy Bay Road under future traffic conditions

7.0 Snow's Lane Traffic and Safety Assessment

A detailed traffic and safety assessment was completed for Snow's Lane. A site visit was performed to observe existing conditions and collect field data including pavement markings, signage, lane widths and sight distance measurements.

7.1 Existing Traffic Operations

The average daily traffic on Snow's Lane is approximately 3721 vehicles based on a 24-hour counting period. According to the roadway classification exercise described in section 6.3, Snow's Lane classifies as a collector roadway. A collector roadway is designed and intended to provide access to adjacent properties and collect and distribute traffic travelling to and from neighborhoods.

Snow's Lane has one travel lane in each direction and is posted to a speed limit of 50 km/h. The 85th percentile speed on Snow's Lane, measured over a 24-hour period, was 56 km/h.

Results of the intersection performance analysis show operational problems at the intersection of Logy Bay Road and Snow's Lane during the PM peak hour. Vehicles on Snow's Lane experience poor levels of service and queues for the northbound left-turn on Logy Bay Road exceed the storage capacity of the left-turn lane. There are no existing operational problems at the intersection of Snow's Lane and Ashkay Drive. Operations at the intersection of Stavanger Drive and Stavanger Drive, located in the City of St. John's, were not analyzed.

7.1.1 Safety Assessment

Pavement markings: Pavement markings include a yellow centerline and white edge lines on the St. John's portion of Snow's Lane, and yellow centerline only on the LBMCOC portion. The centerline pavement marking on the LBMCOC portion, shown in Figure 17, were clearly visible in late August but completely faded by the end of the following February. It should be noted that at that time, both the centerline and edge line markings were still visible on the St. John's portion of Snow's Lane.

Figure 17: Pavement markings on Snow's Lane at the Town Boundary

Signage: Existing signage along Snow's Lane is minimal and only includes stop signs on minor streets, trucking restrictions and speed limit signage. The level of signage is adequate for the roadway.

Lane widths: Snow's Lane has a cross section width of 6.0 m with a 3.0 m travel lane in each direction.

Pedestrian facilities: There are no existing pedestrian facilities on Snow's Lane. Pedestrians and cyclists are required to use the road or gravel shoulders which range from widths of 0-1.5 m with trees and utility poles located within 2.0 m of the edge of asphalt (Figure 18). The narrow width of the travel lanes forces vehicles to stop if a pedestrian or cyclist is travelling along the edge of asphalt when a vehicle is also approaching from the opposite directions. There is insufficient width to allow two vehicles to maneuver around the pedestrian or cyclist.

Figure 18: Varying shoulder width and condition on Snow's Lane

Intersection sight distance: There is limited sight distance on Snow's Lane looking to the left on Logy Bay Road at the intersection of Logy Bay Road and Snow's Lane.

Driveway visibility: The driveway at civic addresses #65 has poor visibility as shown in Figure 19.

Figure 19: Sight distance from the driveway at civic address #65

Lighting: The lighting provided along Snow's Lane appears to be adequate, lights are provided on at least every four poles.

Asphalt condition: The asphalt on Snow's Lane is in poor condition (Figure 20), a number of flexible pavement surface distress types were observed including fatigue cracking, longitudinal cracking and potholes.

Figure 20: Asphalt condition on Snow's Lane

Figure 21 shows an aerial view of the existing conditions along the entire length of Snow's Lane. A full-size drawing can be found in Appendix K.

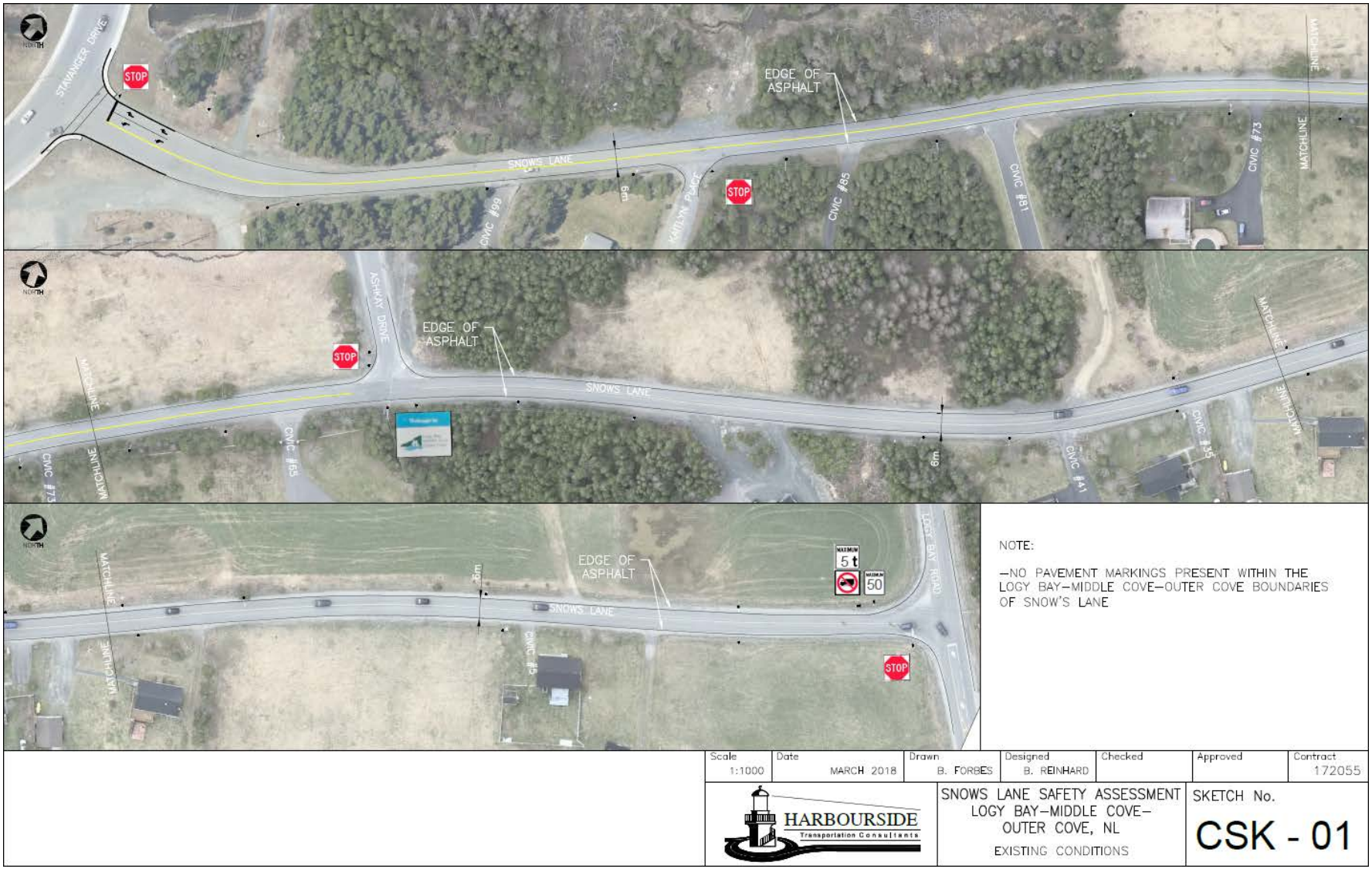


Figure 21: Plan view of existing signage and pavement markings on Snow's Lane

7.2 Snow's Lane Improvements

7.2.1 Logy Bay Road and Snow's Lane Intersection Improvements

The intersection of Logy Bay Road and Snow's Lane currently operates as a unsignalized intersection with minor street (Snow's Lane) stop control. At the intersection, Logy Bay Road has one travel lane in each direction and is posted to a speed limit of 50 km/h. There is a substandard left-turn lane on the northbound approach – the lane is less than 3 metres wide and only 15 metres long (storage capacity of approximately two vehicles). Under existing conditions during the PM peak hour, vehicles on Snow's Lane experience poor levels of service and queues for the northbound left-turn on Logy Bay Road exceed the storage capacity of the left-turn lane.

A review of improvement options was completed for the intersection of Logy Bay Road and Snow's Lane. The review evaluated five improvement options for the intersection under existing and future traffic volumes. The improvement options included:

- Option 1A – Unsignalized Intersection (Status Quo)
- Option 1B – Unsignalized Intersection with Lane Improvements
- Option 2 – 3-way Stop Controlled Intersection
- Option 3 – Signalized Intersection
- Option 4 – Rural Single-Lane Roundabout

It should be noted that as per the Town's request, the review of future operations at the intersection of Logy Bay Road and Snow's Lane was completed prior to the development of the future scenarios based on development projections (Scenario 2 and Scenario 3). As a result, the existing traffic volumes were factored by 25 percent to represent background growth and development in the Town for the purpose of evaluating intersection improvements.

A summary of the review of improvement options and the recommendation is provided below. The detailed report *Logy Bay Road & Snows Lane Intersection – Improvement Options* can be found in Appendix L; the report includes analysis results, conceptual drawings and cost estimates.

Option 1A – Unsignalized Intersection (Status Quo): Under existing conditions, the intersection operates at acceptable levels of service during the AM peak hour. During the PM peak hour, the left and right turn movement on Snow's Lane operate at LOS F and experience on average over 1 minute of delay per vehicle. The overall intersection operates at an acceptable level of service during the PM peak hour.

Under future conditions, the intersection continues to operate at an acceptable of service during the AM peak hour. During the PM peak hour, the conditions on Snow's Lane deteriorate to an average of over 6 minutes of delay per vehicle and the movements are over capacity. The overall intersection operates at LOS F.

Option 1B – Unsignalized Intersection with Lane Improvements: The unsignalized intersection was modelled with the following lane improvements:

- Upgrade the northbound left turn lane on Logy Bay Road to provide 25 metres of storage and appropriate deceleration distance,
- New southbound right turn deceleration lane of 35 metres on Logy Bay Road, and
- New eastbound left-turn lane on Snow's Lane to provide 70 metres of storage space and appropriate deceleration distance.

Under existing conditions, the intersection operates at acceptable levels of service during the AM peak hour. The lane improvements reduce the overall delay at the intersection by one second.

During the PM peak hour, the lane improvements improve delay for the right-turn movement on Snow's Lane. The left turn movement on Snow's Lane continues to operates at LOS F, experiencing approximately 1 minute of delay, similar to conditions without improvements. The overall intersection operates at an acceptable level of service during the PM peak hour.

Under future conditions, the intersection operates at acceptable levels of service during the AM peak hour. The level of service at the southbound approach is improved from LOS D to LOS C. During the PM peak hour, the left turn movement on Snow's Lane operates at LOS F experiencing on average over 4.5 minutes of delay per vehicle and the movement is over capacity. The overall intersection operates at an acceptable level of service during the PM peak hour.

Overall, the addition of auxiliary lanes to the unsignalized intersection under Option 1B does not have a significant impact on operations.

Option 2 – 3-way Stop Controlled Intersection: The all-way stop control warrants analysis outlined in the TAC Manual of Uniform Traffic Control Devices (MUTCD) was completed for the intersection to determine if all-way stop control should be provided at the intersection. Based on the TAC criteria, the intersection of Logy Bay Road and Snow's Lane does not warrant all-way stop control. Providing a 3-way stop at the intersection would cause unnecessary delay on Logy Bay Road and worsen the overall operations at the intersection.

Option 3 – Signalized Intersection: TAC's Traffic Signal Warrant Matrix was used to evaluate if traffic signals should be considered for the intersection of Logy Bay Road and Snow's Lane. The intersection scored 40 points using existing traffic volumes and 64 points under the future traffic volumes; therefore, the intersection does not warrant traffic signals even though poor levels of service are observed on Snow's Lane.

When warranted, traffic signals can improve safety and operations at intersections. However, in instances where they are not warranted they have been shown to create problems. Unwarranted signals typically increase delay on the major street (Logy Bay Road) and the frequency of rear end collisions.

Option 4 – Rural Single-Lane Roundabout: The roundabout operates at acceptable levels of service during both peak hours under existing and future conditions. It should be noted that based on the conceptual drawings, the roundabout option requires 60 percent more land acquisition than the lane improvement option.

The results of the analysis show that the lane improvement option does not significantly improve operations at intersection under both existing and future conditions and that all-way stop control and traffic signals are not warranted. The roundabout option significantly reduces delay under existing conditions and continues to be efficient under future conditions.

In addition, roundabouts provide significant safety benefits, reduce vehicle emissions and require little to no maintenance. If the societal costs associated with injuries, fatalities and property damage were considered, the roundabout would certainly be the preferred means of traffic control at this intersection.

7.2.2 Safety Improvements

Pavement markings: A yellow centerline, white edge lines and a stop bar on Ashkay Drive should be installed as shown in Figure 22. The appropriate roundabout pavement markings should be installed at the intersection of Logy Bay Road and Snow's Lane.

Signage: No improvements are required.

Lane widths: The TAC *Geometric Design Guide for Canadian Roads* recommends a minimum lane width of 3.5 m for rural roadways with daily volumes greater than 450 vehicles and a speed limit of 50 km/h. Snow's lane should be widened to accommodate a 3.5 m lane in each direction.

A minimum of 1.2 m wide shoulders should be provided on both sides of the road and maintained for the entire length of the road. Trees alongside of the roadway should be cleared to provide adequate lateral sight distance at the horizontal curve in the vicinity of civic address #41.

Pedestrian safety: The high traffic volumes and speeds observed on Snow's Lane combined with the narrow cross-section and lack of pedestrian facilities or shoulders create an environment that can perceived as unsafe to pedestrians and cyclists. The Town has indicated the desire to remain rural in nature and not install sidewalks on their roadways but rather create a system of off-road active transportation trails. Since the limited right-of-way along Snow's Lane makes it challenging to incorporate an active transportation trail, the Town should ensure that a consistent shoulder width of minimum 1.2 m is provided along Snow's Lane. Pedestrians and cyclists will then be able to travel along the shoulder rather than within the travel lane.

Intersection sight distance: The proposed roundabout will resolve the sight distance issue at the intersection of Logy Bay Road and Snow's Lane.

Driveway visibility: The trees within the sight triangles on either side of the driveway at civic address #65 should be cleared. Only one sight triangle is located partially within the Town's boundary.

Lighting: No improvements are required.

Asphalt conditions: The asphalt along Snow's Lane should be replaced.

Figure 22 shows an aerial view of the proposed improvement plan along the entire length of Snow's Lane. A full-size drawing can be found in Appendix K.

7.2.3 Snow's Lane Cost Estimate

A Class "D" cost estimate was prepared for the improvements on Snow's Lane. It should be noted that the cost estimate does not include HST or the costs associated with utility relocations and property acquisitions. The estimate includes a 20 percent contingency and a 10 percent engineering design fee.

The cost to widen Snow's Lane and upgrade the intersection of Logy Bay Road and Snow's Lane to a single-lane roundabout is estimated at approximately $859,000. Of this cost, approximately $495,000 is allocated for the construction of the roundabout. A detailed breakdown of the costs is provided in Appendix M.

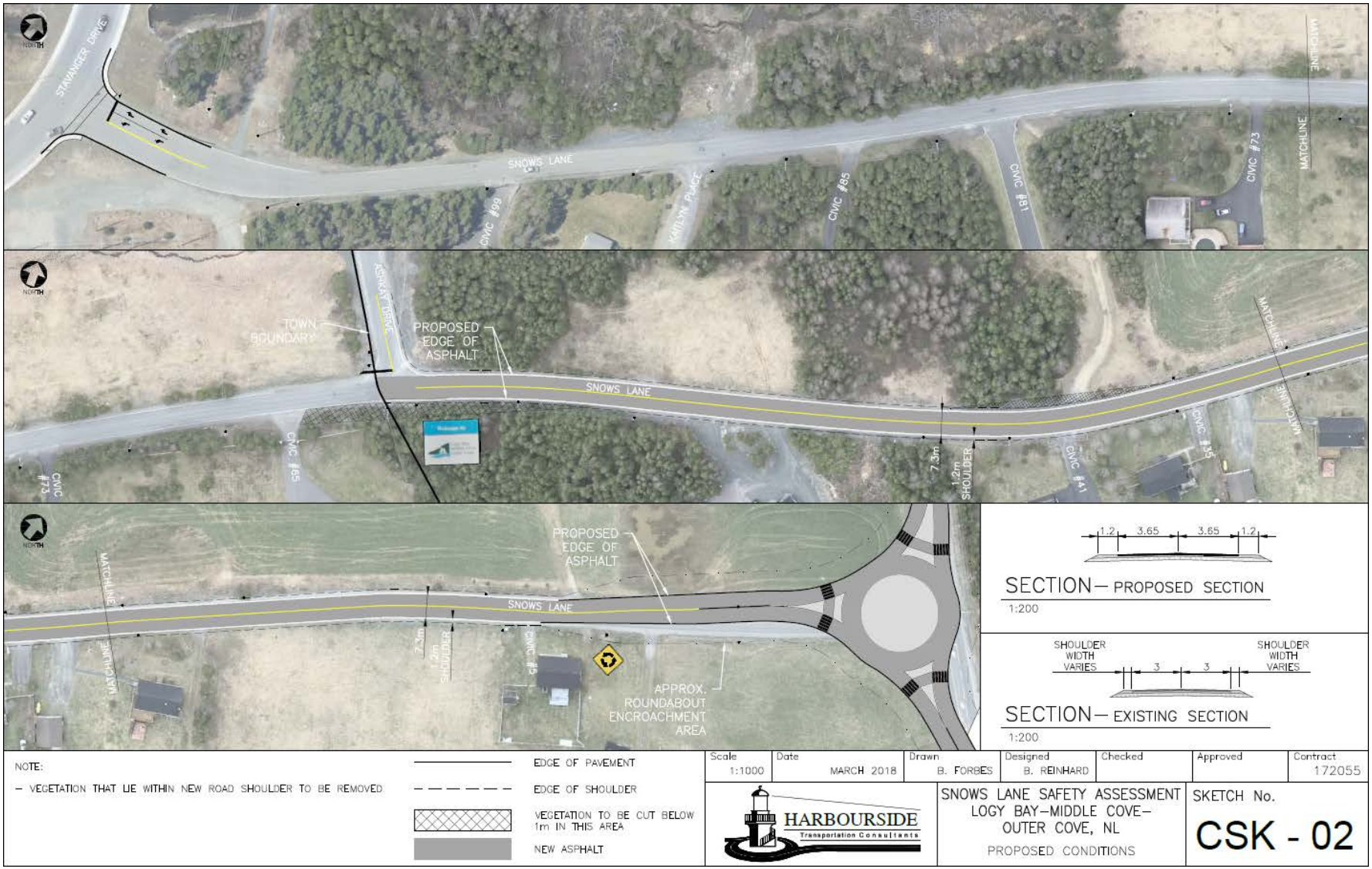


Figure 22: Plan view of proposed signage and pavement markings on Snow's Lane

8.0 Active Transportation

The Town, in collaboration with the Grand Concourse Authority (GCA), has prepared a trail development plan. The trail development plan, included in Appendix N, proposes a number of walking trails, roadside links, key crossing locations as well as trail amenities and parking locations. A section of the map encompassing the study area is shown in Figure 23.

The overall plan shows a proposed trail network (solid red lines) with roadside links (dashed green lines) that is mainly focused in the Town's main development area, the area under review in this study. Trails proposed for the longer term (dashed red lines) will connect this trail network to other areas of the Town.

8.1 Network Connectivity

The trail development plan was reviewed to ensure the connectivity of the proposed trail network. As the Town wishes to remain rural in nature and not provide sidewalks on residential streets, it is important that the trail system provides a high-level of connectivity that will allow user to navigate the Town using active transportation.

The proposed trail network provides a good level of connectivity throughout the main development area. The system also provides a number of loop opportunities which are typically preferred by recreational users.

There are two future connections proposed to connect the trail network in the main development area to other areas of the Town. Both locations are located in the northern area of the Town, one connection from St. Francis Road ending opposite of O'Rourkes Lane and the other connection crossing at the Logy Bay Road and Lower Road intersection and continuing to Outer Cove.

There are no connections to the trail network across Logy Bay Road in the southern portion of the Town. In addition, there are no links proposed to the following key locations in the Town:

- Kelly Park/Justina Centre
- Town Hall
- St. Francis of Assisi School from the east side of the Town
- Neighbourhood commercial area (convenience store, liquor store and wellness clinic)
- Places of worship

The proposed trail network does not provide sufficient connectivity to allow users to navigate the entire Town using active transportation. However, the proposed trail network will promote recreational use of active transportation in the main development area.

8.2 Parking Areas

The trail development plan was reviewed to ensure suitable parking areas are recommended for trail users. The parking areas must provide safe access to trail entrances in order to encourage use of the trail system. The plan identifies a total of six parking areas in the Town.

Three parking areas are proposed in the development area, two in the area north of the Power Estate (one adjacent to Soldiers Pond and one on Middle Ledge Drive) and one in the area south of the Power Estate. In addition, the parking lot at the St. Francis of Assisi school is included as a parking area central to the main development area. The plan proposes sufficient parking areas in the main development area.

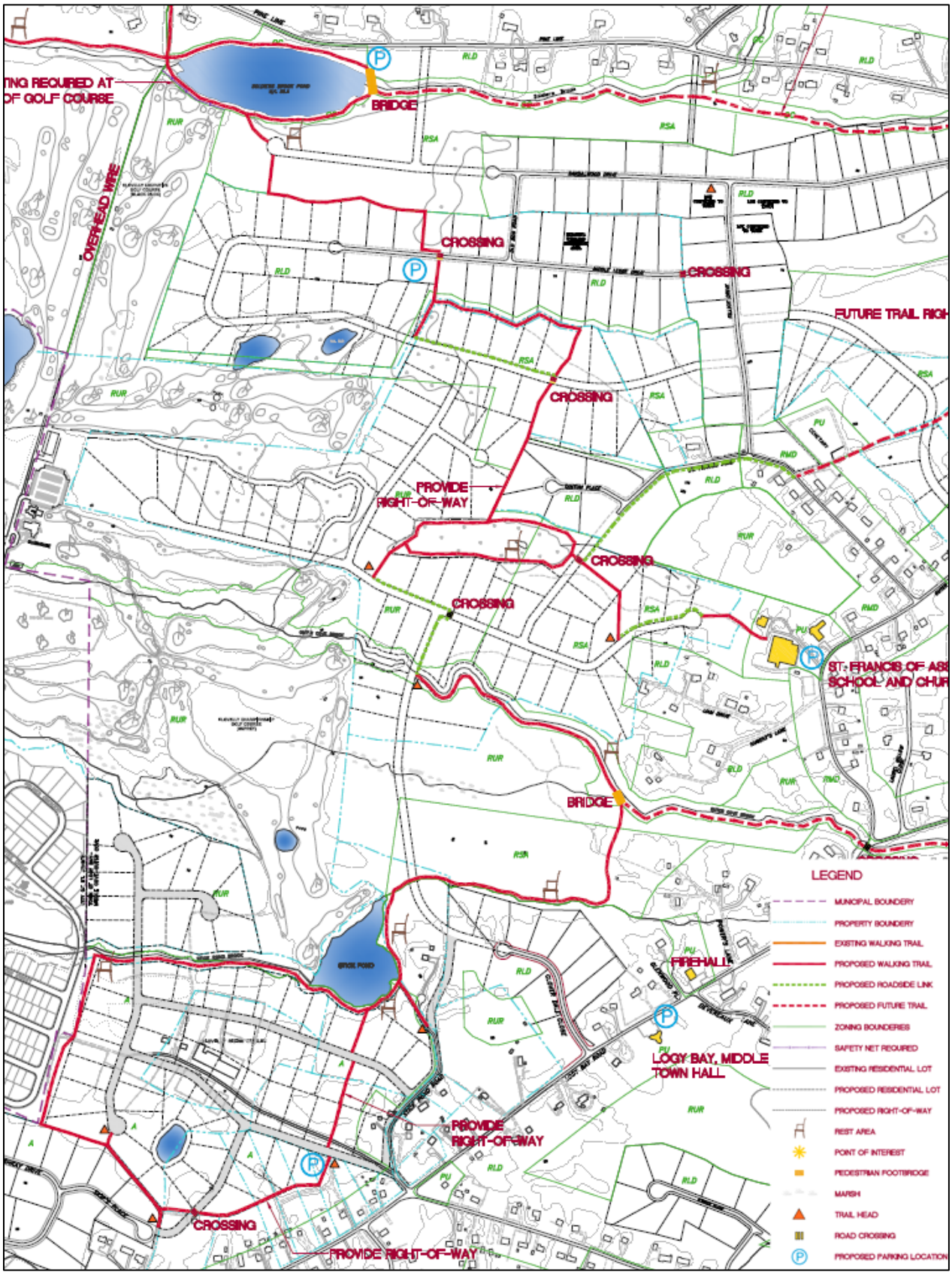


Figure 23: Trail development plan

The two other parking areas identified on the plan include the existing parking areas at the Kelly Park/Justina Centre and the Town Hall. As previously indicated, the plan does not include connections to the trail system at these locations. These parking areas cannot be considered parking areas for the trail system if no connections exist.

Both parking areas are also located on the east side of the road and would require trail users to cross collector roadways to access the trail system. The plan does not include any crossings locations in the vicinity of the parking areas at the Kelly Park/Justina Centre and the Town Hall. Trail connections and proper crossing control should be provided at these two locations.

8.3 Trail Crossings

The proposed trail development plan includes a number of trail crossing along both low volumes residential roads and higher volume collector roads. The plan proposes crosswalks at a number of proposed crossings, crosswalks should be provided at all trail crossings, including those on the following roadways:

- St. Francis Road
- Big Meadow Drive
- Outer Cove Road at O'Rourkes Lane
- Future roadway connection through the Power Estate
- Clovelly Lane
- Future residential roads in the Basil Dobbin Property

Consideration should be given to providing proper crossing control at crossing locations, especially on collector roadways. Higher volume crossings should be reviewed according to the TAC *Pedestrian Crossing Control Guide*. The guide provides a decision support tool to assist in the selection of the most appropriate configuration to enable pedestrians to cross safely at a specific location.

8.4 Trailheads and Signage

Adequate trailheads should be provided at each trail entrance, the entrance to the trail should be clearly indicated and some level of signage and amenities should be provided. The lack of proper signage and trailheads have been identified to hamper the user's ability to find and access trails. While residents may be able to find their way, lack of signage can deter tourism and new users.

A standard should be developed for all trailheads to ensure they are clearly visible to both trail users and vehicles and that appropriate wayfinding signage is provided. Trailhead signage should include a map of the overall trail network indicating to users the layout of the trail network, connections to other trails and services, the presence of amenities and their current location. These maps should also be provided at any major internal trail junctions.

Trail markers such as those used by the Grand Concourse Authority, shown in Figure 24, can also be used to mark trails on roadside links and at internal trail junctions.

Figure 24: Grand Concourse Authority trail marker

8.5 Active Transportation Cross Sections

All active transportation trails should be designed according the GCA standards. The typical cross sections and design for granular walkways in dry or wet areas are shown in Figure 25 and Figure 26 respectively. The GCA cross sections specify a varying trail width of 1.5-3.0 m. The minimum width of 1.5 m provides the minimum width required to accommodate two pedestrians walking abreast.

It should be noted that the TAC *Geometric Design Guide for Canadian Roads* recommends a minimum width of 3.0 m for a shared multi-use path that allows both pedestrians and cyclists. It is recommended that the Town implement trails with 3.0 m wide cross sections to accommodate cycling.

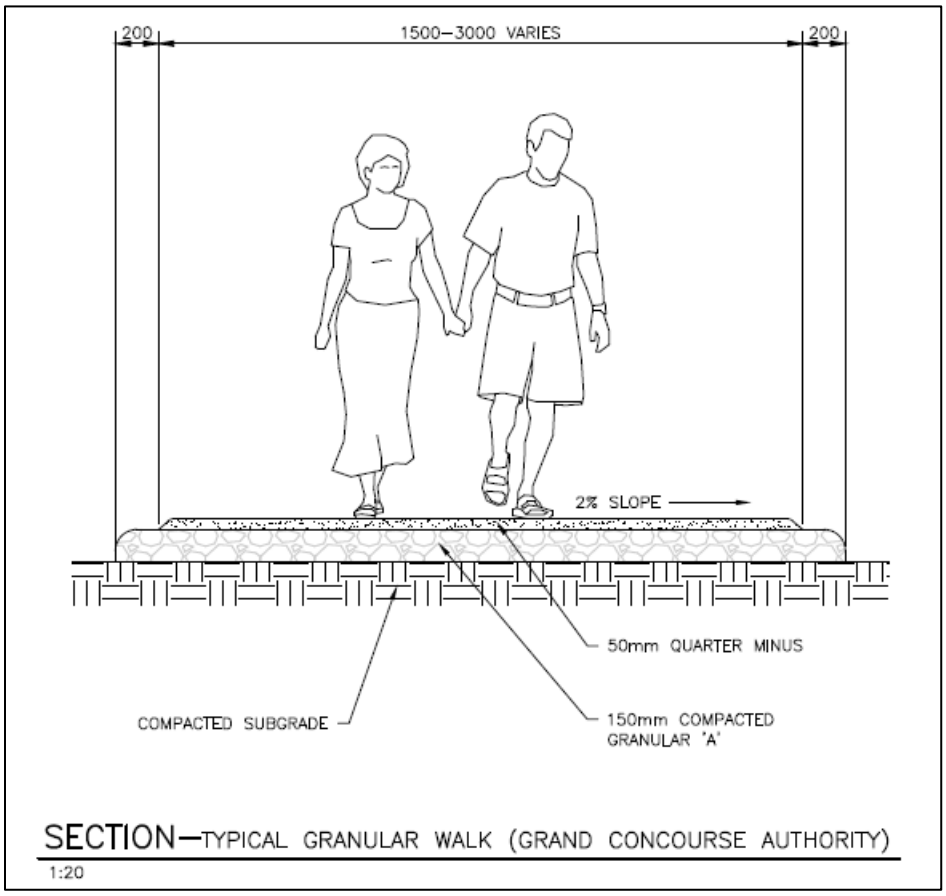


Figure 25: Typical cross section and design for granular walkway

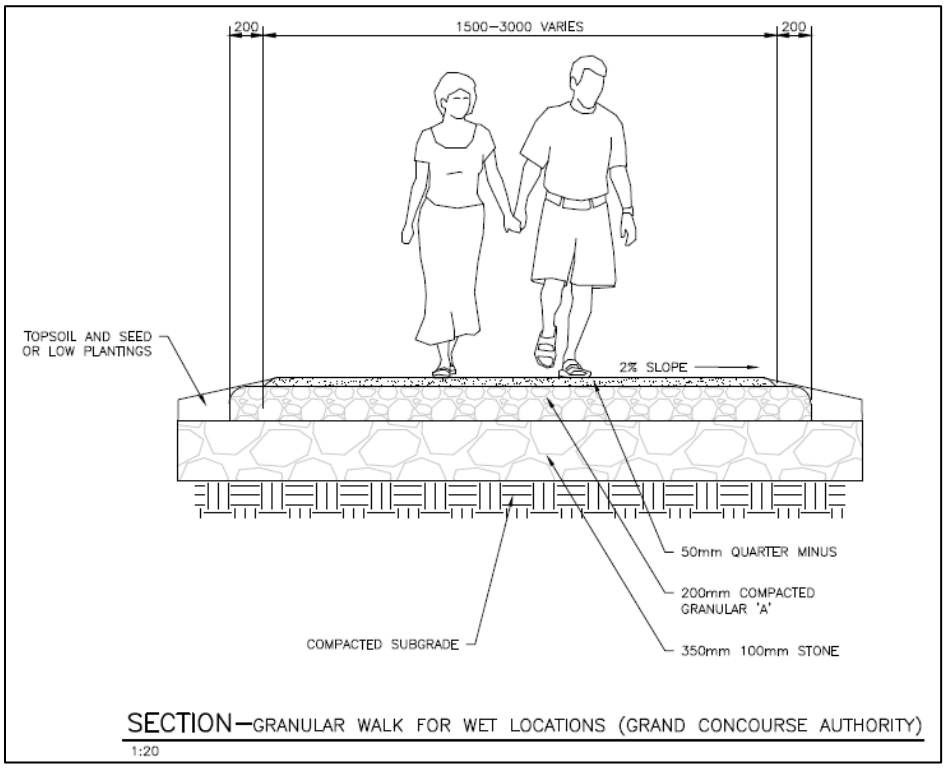


Figure 26: Typical cross section and design for granular walkway in wet locations

9.0 Traffic Calming

Traffic calming is defined by the Institute of Transportation Engineers (ITE) as the combination of physical measures designed to reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for pedestrians and cyclists.

The Town of LBMCOC currently employs speed bumps and radar speed display signs as traffic calming measures on a number of streets. Residents have expressed positive feedback regarding traffic calming measures employed by the Town and indicated that they would like to see more traffic calming measures implemented throughout the Town.

9.1 Traffic Calming Policy

A traffic calming policy was prepared to assist the Town in addressing traffic and safety issues on residential roadways in a consistent and transparent manner. The policy outlines a ten-step process suggested to manage traffic calming requests throughout the Town. The methodology includes:

- Step 1 – Initial request for traffic calming
- Step 2 – Initial screening process
- Step 3 – Prioritizing requests
- Step 4 – Council approval and funding allocation
- Step 5 – Initial resident support
- Step 6 – Traffic calming plan
- Step 7 – Final resident support
- Step 8 – Final Council approval
- Step 9 – Design, tender and construction
- Step 10 – Follow up

The complete traffic calming policy can be found in Appendix O. The traffic calming policy document also includes a “traffic calming toolbox” section that describes common traffic calming measures, their uses and costs.

9.2 Traffic Calming in New Residential Subdivisions

Traffic calming should be introduced into the design stage of new developments to improve the aesthetics of the subdivision, reduce the speeds and through traffic volumes and provide a safer and friendlier environment for children and other users.

A section should be included in the Town’s design standards stating that traffic calming measures should be incorporated into the design of subdivisions to encourage traffic-calmed neighbourhoods and provide safer environments for pedestrians. In addition, it should be required that the layout of the internal road network and its connections to other roadways be reviewed to ensure their layout will not foster traffic issues such as shortcutting or speeding.

10.0 Residential Subdivision Standards Review

The Town has several documents which reference streets and outline various requirements pertaining to streets. The documents and their relevant sections include but are not limited to:

- Strategic Plan for 2014-2017
  - Strategic Initiatives - Page 12
- Municipal Plan for 2005-2015 (currently under review)
  - 3.6 Transportation – Page 10
  - 4.3.2 Subdivision Policies – Page 14
  - 4.3.4 Council Assumption of Private Roads – Page 14
  - 4.4.9 Scenic Route – Page 53
  - 4.4.10 Transportation – Page 55
  - 5.4 Capital Works – Page 63
- Development Regulations for 2005-2015 (currently under review)
  - PART II - General Development Standards
    - 37. Accesses and Service Streets – Page 17
    - 58. Street Construction Standards – Page 26
    - 61. Corner Lot Sight Triangle – Page 26
  - PART IV – Subdivision of Land
    - 80. Subdivision Design Standards – Page 33
    - 83. Street Works May be Deferred – Page 35
    - 84. Transfer of Streets and Utilities to Authority – Page 36
- Municipal Engineering Residential Subdivision Standards (November 2015)
  - Division 6 – Streets

It is important that any overlap of information in the above referenced documents is consistent. The following comments pertain to a specific review of Division 6 of the Town's Municipal Engineering Residential Subdivision Standards.

Section 6.1:

- References table 5.1 in error, the reference should be to table 6.1

Section 6.2.1:

- References the "Manual of Geometric Design Guide for Canadian Roads". "Manual of" should be removed.
- References Dwg 002 in Appendix A which shows a 6m wide asphalt width, as per Section ?? the recommended minimum asphalt width is 7m.

Table 6.2:

- Row 6 - *Minimum Stopping Sight Distance and Turning Sight Distance*
  - "and Turning Sight Distance" should be removed.
  - Arterials & Collectors indicate "Refer to Urban Supplement to TAC". This should be revised to "Reference Section 2.5 of the TAC Geometric Design Guide for Canadian Roads"
  - Locals indicates 45m. This should be increased to 65m
- Row 7 – *Pavement Widths*

  - Locals indicate 6m. This should be increased to 7m
- Row 10 – Minimum Length of Vertical Curve
  - All columns should indicate "Not less than the design speed in km/h and no less than 60m except on Local streets where a vertical curve is required at the approach to a stop-controlled intersection to make the transition to the maximum approach grade of 2% (6.3.4). In this instance, the length of vertical curve may be reduced to 30m."
- Row 11 Vertical curve maximum length (length for drainage)
  - This information appears to be redundant Included in Row 9). Row 11 can be removed.
- Row 13 – *Minimum Edge of Asphalt at Intersections*
  - Should be revised to *Minimum Edge of Asphalt* ***Radius*** *at Intersections*

Section 6.3 Intersections:

- Remove 6.3.2
- 6.3.3 Should be revised to "As far as possible intersections should be aligned at 90°. Maximum permitted deviation is 10° (i.e. 80° to 110°).

Section 6.4 Driveways

- Second paragraph should be revised to "No driveway (ramp) shall be permitted to enter onto an existing or proposed designated…."

11.0 Conclusions and Recommendations

In recent years, development has grown in the central portion of the Town. There are a number of proposals currently underway or in the planning process for this area. A total of 268 dwelling units are expected to be built over the next 10 years. Harbourside Transportation Consultants was retained by the Town of LBMCOC to complete a transportation study to identify the long-term transportation needs required to support future development in the Town of LBMCOC.

Interviews were conducted with stakeholders including developers and engineering/planning staff to obtain information regarding development projections and timeframes. The proposed developments include residential land uses only, including single-family detached housing and senior adult housing.

In the five-year development timeframe (2022), 177 dwelling units are anticipated to be constructed. An additional 91 dwelling units are expected for the ten-year timeframe (2027). At full build-out, the proposed developments are expected to generate 160 trips in the AM peak hour (44 trips in/116 trips out) and 211 trips in the PM peak hour (137 trips in/74 trips out).

The St. John's Regional PTV Visum models were used to distribute the projected development traffic onto the study area road network. As part of this study, the models were updated and calibrated to reflect the existing and future road networks and travel patterns in the LBMCOC area. The volumes obtained from the models were superimposed on the base volumes for each of the defined scenarios to produce design volumes.

Three assessment scenarios were performed to quantify the impact of the future development on the Town's road network, including:

- Scenario 1: Existing Conditions (2017)
- Scenario 2: Five-year Development Projection (2022)
- Scenario 3: Ten-year Development Projection (2027)

Under Scenario 1, an assessment of existing conditions, poor levels of service are observed in Synchro at Logy Bay Road and Marine Drive/ORR On-Ramp and Logy Bay Road and Snow's Lane. All other twelve study intersections operate at acceptable levels of service in Synchro. SimTraffic shows all fourteen study intersections operating at acceptable levels of service. Based on existing traffic volumes, traffic signals are not warranted at any of the study intersections.

Under, Scenario 2, an assessment of future operations in the study area with background traffic growth and the five-year development projection, poor levels of service are observed in Synchro at Logy Bay Road and Marine Drive/ORR On-Ramp, Logy Bay Road and Snow's Lane and Logy Bay Road and Cadigan's Road/Stick Pond Road. All other eleven study intersections operate at acceptable levels of service in Synchro. SimTraffic shows all fourteen study intersections operating at acceptable levels of service.

The following improvements are recommended for the 0-5 year timeframe to improve traffic operations throughout the Town:

- Logy Bay Road and Marine Drive/ORR On-Ramp: Provide a separate left-turn storage lane on the Marine Drive approach.
- Logy Bay Road and Snow's Lane: Convert the intersection to a roundabout
- Logy Bay Road and Cadigan's Road/Stick Pond Road: Provide a separate left-turn storage lane on the Cadigan's Road approach.

Under, Scenario 3, an assessment of future operations in the study area with background traffic growth and the ten-year development projection, poor levels of service are observed in Synchro at Logy Bay Road and Marine Drive/ORR On-Ramp and Logy Bay Road and Cadigan's Road/Stick Pond Road. All other twelve study intersections operate at acceptable levels of service in Synchro. SimTraffic shows poor levels of service at Logy Bay Road and Marine Drive/ORR On-Ramp. All other study intersections operate at acceptable levels of service in Synchro.

The following improvements are recommended for the 5-10 year timeframe to improve traffic operations throughout the Town:

- Logy Bay Road and Marine Drive/ORR On-Ramp: Future traffic volumes based on background traffic growth and development projections will likely reach the threshold for traffic signals by 2027. While the overall volumes at the intersection are high, the volumes on the Marine Drive approach are less than 60 vehicles during the peak hours. The left-turn movement on Marine Drive may begin to experience some longer delays, however, due to the small proportion of left-turn volumes this does not justify installing a traffic signal.

  Based on SimTraffic results, it is unlikely that the high delays observed in Synchro will materialize. The intersection should continue be monitored to ensure that the intersection operates at acceptable levels of service as is anticipated. If high delays are observed, then conversations must occur with the Provincial Government and/or the City of St. John's to discuss any future improvements to the intersection.
- Logy Bay Road and Cadigan's Road/Stick Pond Road: Provide a separate left-turn storage lane on the Stick Pond Road approach.

The proposed road network for the study area was reviewed to ensure that a safe, efficient and well-connected road network is achieved throughout the Town. The traffic volumes generated by the proposed developments are such that the Town can consider multiple alternatives with respect to the proposed road network and associated connections to existing streets. However, a number of important considerations were identified, including:

1. Cul-de-sac reduce connectivity for emergency vehicles and pedestrian/cycling opportunities.
2. A connection between Pine Line and Sandalwood Drive is not required from a traffic volume perspective, although it may be desirable from a connectivity perspective.
3. St. Francis Road becomes is an attractive road in both the 5-year and 10-year study horizons. Upgrades are required to St. Francis Road to accommodate increases in traffic volumes.
4. Stick Pond Road is proposed as a key roadway connection to the development area. Upgrades are required to Stick Pond Road to accommodate increases in traffic volumes.
5. Power's Lane has been suggested as a potential connection to the proposed road network. Upgrades are required to Power's Lane in order to provide a connection.
6. The north-south roadway proposed through the Power Estate becomes an attractive route in the 10-year horizon. The roadway is proposed to connect to Clover Dale Close and Stick Pond Road with potential secondary connections to Power's Lane or a new roadway.
7. There are some geometric issues with the proposed geometry at the intersection of Stick Pond Road and Clovelly Lane. Further consideration must be given to the alignment of this intersection at the detailed design stage.
8. Consideration was given to an additional roadway connection between the Town and the City of St. John's through the municipal boundary along the west side of the study area. Such a connection is not required from a traffic perspective and would likely be undesirable.
9. Snow's Lane requires upgrading along the entire length of the roadway.

Standard cross sections were prepared for local and collectors roadways. Cross sections prepared include local road, local road with left-turn lane, local road with walkable shoulder, collector road, collector road with left-turn lane. The following minimum width are recommended:

- 3.5m through travel lanes
- 3.0 m exclusive turning lanes
- 1.0m shoulders
- 1.2m shoulder for walkable shoulders (a 2.2m shoulder should be provided where possible to include a 1.0m buffer)

The Town's existing roadway classification system does not align with TAC's guidelines for roadways classifications. The roadway classification system was updated to reflect TAC's rural road classification system which includes freeways, arterial roadway, collector roadways and local roadways. Each roadway within the Town was reviewed and classified according to the TAC classification. There are no roadways are classified as freeways or arterial roadways within the Town's boundary. Five roadways were identified as collector roadways: Logy Bay Road, Marine Drive, Middle Cove Road, Outer Cove Road and Snow's Lane. A roadway classification map depicting the classification was developed.

The SJRFD response times to all areas of the Town were modelled for existing traffic conditions and the ten-year planning horizon with the proposed road network in place. The SJRFD's current response time from Kent's Pond Station No. 6 to the Town boundary on Logy Bay Road is 4 minutes and 33 seconds. Under both existing conditions and the ten-year horizon, all areas of the Town can be accessed from the Town

boundary on Logy Bay Road in ten minutes or less. In the ten-year scenario with the connection through the Power Estate, all areas of the proposed road network are accessible from the Town boundary on Logy Bay Road within four to eight minutes.

The SJRFD indicated that there are have been preliminary discussions regarding a new fire station in the east end of the City of St. John's, which will likely be located closer to the Town. It is recommended, that the Town maintain close contact with the SJRFD in this regard to ensure that the new location is in the mutual best interests of both the SJRFD and the Town.

A detailed traffic and safety assessment was completed for Snow's Lane. A review of existing conditions relating to traffic operations, pavement markings, signage, lane widths, pedestrian facilities, intersection sight distance, driveway visibility lighting and pavement condition was completed. A number of improvements were identified including widening Snow's Lane and providing walkable shoulders, providing additional pavement markings, clearing of trees within sight lines and repaving the road. As previously discussed in the 5-year traffic analysis improvements, the intersection of Logy Bay Road and Snow's Lane should be converted to a roundabout. A Class "D" cost estimate was prepared for the improvements on Snow's Lane, that the cost estimate does not include HST or the costs associated with utility relocations and property acquisitions. The cost to widen Snow's Lane and upgrade the intersection of Logy Bay Road and Snow's Lane to a single-lane roundabout is estimated at approximately $858,000. Of this cost, approximately $495,000 is allocated for the construction of the roundabout.

The Town, in collaboration with the Grand Concourse Authority (GCA), has prepared a trail development plan. The plan was reviewed to ensure the connectivity of the proposed trail network. As Town wishes to remain rural in nature and not provide sidewalks on residential streets, it is important that the trail system provides a high-level of connectivity that will allow user to navigate the Town using active transportation.

The plan shows a proposed trail network with roadside links that is mainly focused in the Town's main development area, the area under review in this study. Trails proposed for the longer term will connect this trail network to other areas of the Town. The proposed trail network provides a good level of connectivity throughout the main development area. The system also provides a number of loop opportunities which are typically preferred by recreational users.

The plan lacks connectivity across Logy Bay Road in the lower portion of the Town, connections to key locations and to parking areas.

The proposed trail development plan includes a number of trail crossing along both low volumes residential roads and higher volume collector roads. Consideration should be given to providing proper crossing control at crossing locations, especially on collector roadways.

Adequate trailheads should be provided at each trail entrance, the entrance to the trail should be clearly indicated and some level of signage and amenities should be provided. A standard should be developed for all trailheads to ensure they are clearly visible to both trail users and vehicles and that appropriate wayfinding signage is provided.

All active transportation trails should be designed according the GCA standards. The GCA cross sections specify a varying trail width of 1.5-3.0 m. The minimum width of 1.5 m provides the minimum width required to accommodate two pedestrians walking abreast. A minimum width of 3.0 m is required for a shared multi-use path that allows both pedestrians and cyclists. It is recommended that the Town implement trails with 3.0 m wide cross sections to accommodate cycling.

The Town currently employs traffic calming measures on a number of streets. Residents have expressed positive feedback regarding traffic calming measures employed by the Town and indicated that they would like to see more traffic calming measures implemented throughout the Town. A traffic calming policy was prepared to assist the Town in addressing traffic and safety issues on residential roadways in a consistent and transparent manner. The policy outlines a ten-step process suggested to manage traffic calming requests throughout the Town.

Appendix A

Intersection Turning Movement Counts

Harbourside Transportation Consultants
8 Rowan Street, Suite 306
Terrace on the Square
St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Logy Bay Road & Cadigan's Road
Site Code:
Start Date: 09/21/2017

Turning Movement Data

Start Time	Logy Bay Road Southbound					Cadigan's Road Westbound					Logy Bay Road Northbound					Stick Pond Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:00 AM	0	14	1	0	15	1	0	16	0	17	8	9	0	0	17	1	0	0	0	1	50
7:15 AM	0	37	2	0	39	0	0	18	0	18	9	10	1	0	20	0	0	0	0	0	77
7:30 AM	0	62	0	0	62	1	0	28	0	29	12	22	0	0	34	1	0	0	0	1	126
7:45 AM	0	89	2	0	91	9	0	36	0	45	17	32	0	0	49	0	0	0	0	0	185
Hourly Total	0	202	5	0	207	11	0	98	0	109	46	73	1	0	120	2	0	0	0	2	438
8:00 AM	0	128	6	0	134	5	0	43	0	48	12	30	1	0	43	1	0	1	0	2	227
8:15 AM	0	73	1	0	74	2	0	30	0	32	15	20	0	0	35	1	0	0	0	1	142
8:30 AM	0	60	0	0	60	0	0	17	0	17	14	21	0	0	35	0	0	0	0	0	112
8:45 AM	1	43	1	0	45	3	0	23	0	26	17	22	0	0	39	1	0	0	0	1	111
Hourly Total	1	304	8	0	313	10	0	113	0	123	58	93	1	0	152	3	0	1	0	4	592
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	23	2	0	25	2	0	16	0	18	12	23	1	0	36	0	0	0	0	0	79
11:15 AM	1	21	0	0	22	1	1	13	0	15	18	32	2	0	52	2	0	0	0	2	91
11:30 AM	0	33	0	0	33	5	0	13	0	18	11	28	1	0	40	1	0	0	0	1	92
11:45 AM	0	30	1	0	31	0	0	28	0	28	16	37	0	0	53	0	0	2	0	2	114
Hourly Total	1	107	3	0	111	8	1	70	0	79	57	120	4	0	181	3	0	2	0	5	376
12:00 PM	1	29	1	0	31	5	0	23	0	28	22	41	1	0	64	0	1	0	0	1	124
12:15 PM	0	19	0	0	19	4	0	15	0	19	17	41	0	0	58	2	0	0	0	2	98
12:30 PM	1	28	1	0	30	4	0	19	0	23	20	43	0	0	63	0	0	0	0	0	116
12:45 PM	2	36	2	0	40	2	0	19	0	21	18	34	1	0	53	2	0	0	0	2	116
Hourly Total	4	112	4	0	120	15	0	76	0	91	77	159	2	0	238	4	1	0	0	5	454
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	23	2	0	25	2	0	11	0	13	17	62	1	0	80	0	0	0	0	0	118
4:15 PM	0	29	0	0	29	1	0	22	0	23	25	72	3	0	100	1	0	0	0	1	153
4:30 PM	0	41	1	0	42	1	0	22	0	23	24	96	0	0	120	0	0	3	0	3	188
4:45 PM	1	27	2	0	30	2	0	24	0	26	35	124	0	0	159	1	1	0	0	2	217
Hourly Total	1	120	5	0	126	6	0	79	0	85	101	354	4	0	459	2	1	3	0	6	676
5:00 PM	1	30	2	0	33	2	0	21	0	23	27	140	0	0	167	0	0	0	0	0	223
5:15 PM	0	28	0	0	28	2	0	18	0	20	29	118	3	0	150	0	0	1	0	1	199
5:30 PM	0	41	1	0	42	1	0	16	0	17	27	73	3	0	103	3	0	0	0	3	165
5:45 PM	0	33	3	0	36	2	0	18	0	20	17	64	6	0	87	0	0	0	0	0	143
Hourly Total	1	132	6	0	139	7	0	73	0	80	100	395	12	0	507	3	0	1	0	4	730
Grand Total	8	977	31	0	1016	57	1	509	0	567	439	1194	24	0	1657	17	2	7	0	26	3266
Approach %	0.8	96.2	3.1	0.0	-	10.1	0.2	89.8	0.0	-	26.5	72.1	1.4	0.0	-	65.4	7.7	26.9	0.0	-	-
Total %	0.2	29.9	0.9	0.0	31.1	1.7	0.0	15.6	0.0	17.4	13.4	36.6	0.7	0.0	50.7	0.5	0.1	0.2	0.0	0.8	-
Lights	8	963	30	0	1001	53	1	446	0	500	370	1176	24	0	1570	17	2	7	0	26	3097
% Lights	100.0	98.6	96.8	-	98.5	93.0	100.0	87.6	-	88.2	84.3	98.5	100.0	-	94.7	100.0	100.0	100.0	-	100.0	94.8
Other Vehicles	0	14	1	0	15	4	0	63	0	67	69	18	0	0	87	0	0	0	0	0	169

% Other Vehicles	0.0	1.4	3.2	-	1.5	7.0	0.0	12.4	-	11.8	15.7	1.5	0.0	-	5.3	0.0	0.0	0.0	-	0.0	5.2

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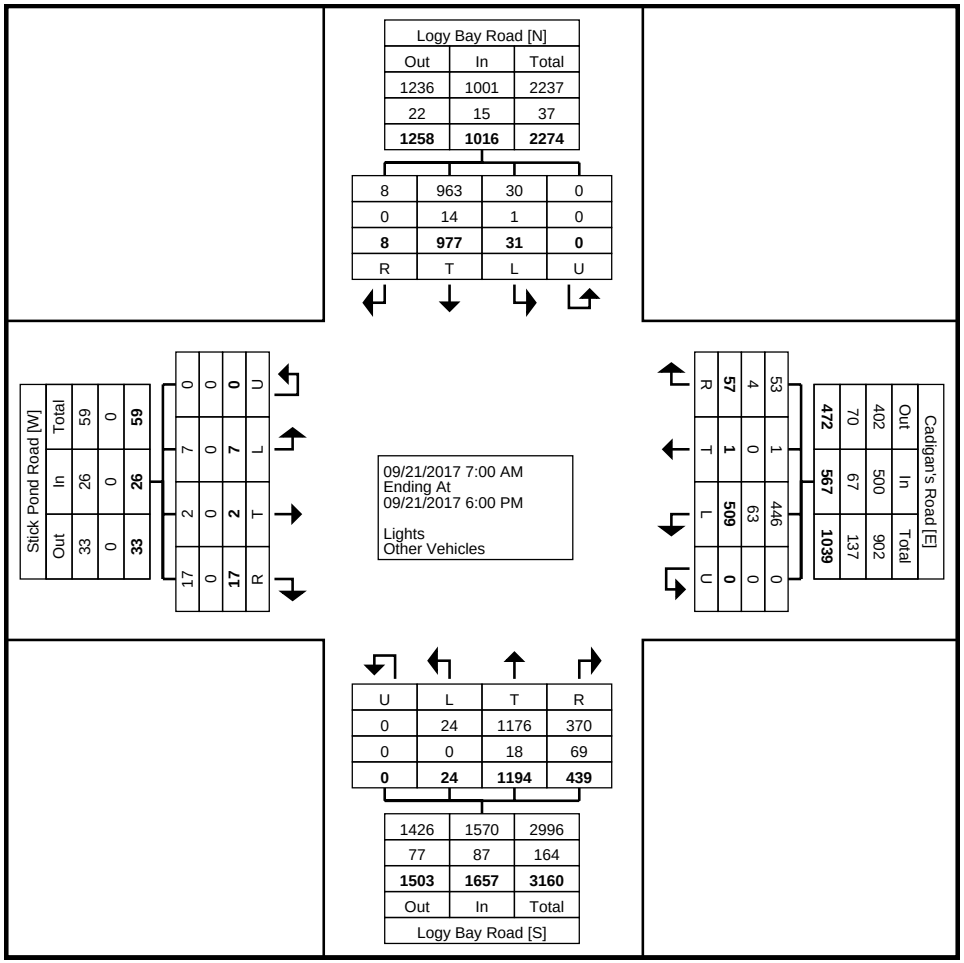
Count Name: Logy Bay Road & Cadigan's Road
Site Code:
Start Date: 09/21/2017



Turning Movement Data Plot

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Count Name: Logy Bay Road & Cadigan's Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Logy Bay Road Southbound					Cadigan's Road Westbound					Logy Bay Road Northbound					Stick Pond Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:30 AM	0	62	0	0	62	1	0	28	0	29	12	22	0	0	34	1	0	0	0	1	126
7:45 AM	0	89	2	0	91	9	0	36	0	45	17	32	0	0	49	0	0	0	0	0	185
8:00 AM	0	128	6	0	134	5	0	43	0	48	12	30	1	0	43	1	0	1	0	2	227
8:15 AM	0	73	1	0	74	2	0	30	0	32	15	20	0	0	35	1	0	0	0	1	142
Total	0	352	9	0	361	17	0	137	0	154	56	104	1	0	161	3	0	1	0	4	680
Approach %	0.0	97.5	2.5	0.0	-	11.0	0.0	89.0	0.0	-	34.8	64.6	0.6	0.0	-	75.0	0.0	25.0	0.0	-	-
Total %	0.0	51.8	1.3	0.0	53.1	2.5	0.0	20.1	0.0	22.6	8.2	15.3	0.1	0.0	23.7	0.4	0.0	0.1	0.0	0.6	-
PHF	0.000	0.688	0.375	0.000	0.674	0.472	0.000	0.797	0.000	0.802	0.824	0.813	0.250	0.000	0.821	0.750	0.000	0.250	0.000	0.500	0.749
Lights	0	344	9	0	353	15	0	123	0	138	39	99	1	0	139	3	0	1	0	4	634
% Lights	-	97.7	100.0	-	97.8	88.2	-	89.8	-	89.6	69.6	95.2	100.0	-	86.3	100.0	-	100.0	-	100.0	93.2
Other Vehicles	0	8	0	0	8	2	0	14	0	16	17	5	0	0	22	0	0	0	0	0	46
% Other Vehicles	-	2.3	0.0	-	2.2	11.8	-	10.2	-	10.4	30.4	4.8	0.0	-	13.7	0.0	-	0.0	-	0.0	6.8

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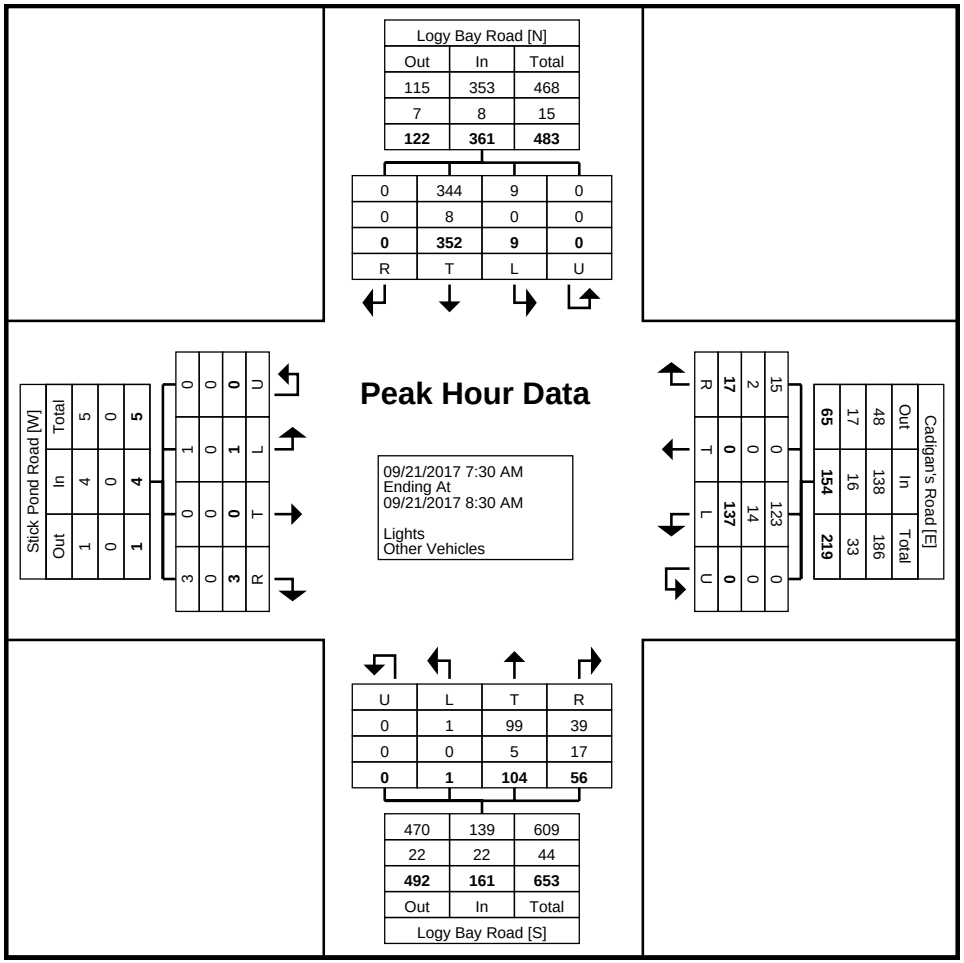

Turning Movement Peak Hour Data Plot (7:30 AM)

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Count Name: Logy Bay Road & Cadigan's Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Logy Bay Road Southbound					Cadigan's Road Westbound					Logy Bay Road Northbound					Stick Pond Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	1	29	1	0	31	5	0	23	0	28	22	41	1	0	64	0	1	0	0	1	124
12:15 PM	0	19	0	0	19	4	0	15	0	19	17	41	0	0	58	2	0	0	0	2	98
12:30 PM	1	28	1	0	30	4	0	19	0	23	20	43	0	0	63	0	0	0	0	0	116
12:45 PM	2	36	2	0	40	2	0	19	0	21	18	34	1	0	53	2	0	0	0	2	116
Total	4	112	4	0	120	15	0	76	0	91	77	159	2	0	238	4	1	0	0	5	454
Approach %	3.3	93.3	3.3	0.0	-	16.5	0.0	83.5	0.0	-	32.4	66.8	0.8	0.0	-	80.0	20.0	0.0	0.0	-	-
Total %	0.9	24.7	0.9	0.0	26.4	3.3	0.0	16.7	0.0	20.0	17.0	35.0	0.4	0.0	52.4	0.9	0.2	0.0	0.0	1.1	-
PHF	0.500	0.778	0.500	0.000	0.750	0.750	0.000	0.826	0.000	0.813	0.875	0.924	0.500	0.000	0.930	0.500	0.250	0.000	0.000	0.625	0.915
Lights	4	110	4	0	118	15	0	64	0	79	67	157	2	0	226	4	1	0	0	5	428
% Lights	100.0	98.2	100.0	-	98.3	100.0	-	84.2	-	86.8	87.0	98.7	100.0	-	95.0	100.0	100.0	-	-	100.0	94.3
Other Vehicles	0	2	0	0	2	0	0	12	0	12	10	2	0	0	12	0	0	0	0	0	26
% Other Vehicles	0.0	1.8	0.0	-	1.7	0.0	-	15.8	-	13.2	13.0	1.3	0.0	-	5.0	0.0	0.0	-	-	0.0	5.7

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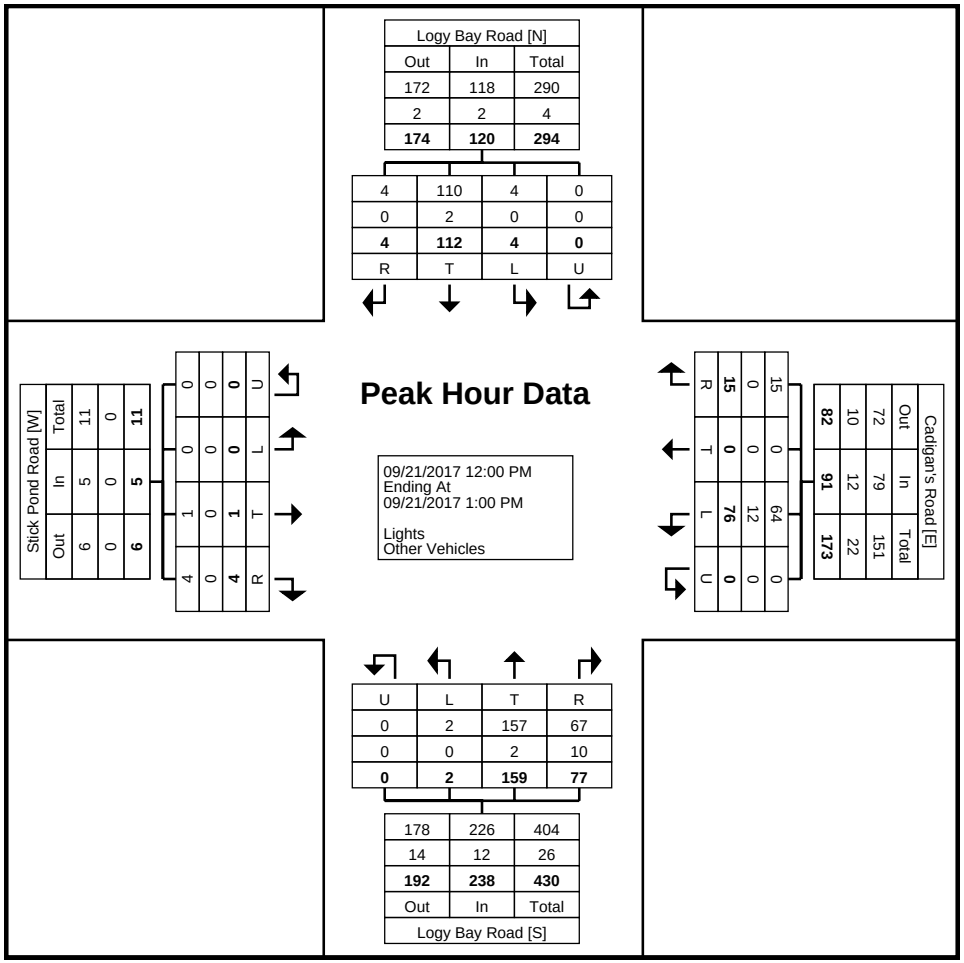

Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Logy Bay Road & Cadigan's Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Logy Bay Road Southbound					Cadigan's Road Westbound					Logy Bay Road Northbound					Stick Pond Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:30 PM	0	41	1	0	42	1	0	22	0	23	24	96	0	0	120	0	0	3	0	3	188
4:45 PM	1	27	2	0	30	2	0	24	0	26	35	124	0	0	159	1	1	0	0	2	217
5:00 PM	1	30	2	0	33	2	0	21	0	23	27	140	0	0	167	0	0	0	0	0	223
5:15 PM	0	28	0	0	28	2	0	18	0	20	29	118	3	0	150	0	0	1	0	1	199
Total	2	126	5	0	133	7	0	85	0	92	115	478	3	0	596	1	1	4	0	6	827
Approach %	1.5	94.7	3.8	0.0	-	7.6	0.0	92.4	0.0	-	19.3	80.2	0.5	0.0	-	16.7	16.7	66.7	0.0	-	-
Total %	0.2	15.2	0.6	0.0	16.1	0.8	0.0	10.3	0.0	11.1	13.9	57.8	0.4	0.0	72.1	0.1	0.1	0.5	0.0	0.7	-
PHF	0.500	0.768	0.625	0.000	0.792	0.875	0.000	0.885	0.000	0.885	0.821	0.854	0.250	0.000	0.892	0.250	0.250	0.333	0.000	0.500	0.927
Lights	2	125	5	0	132	7	0	78	0	85	107	473	3	0	583	1	1	4	0	6	806
% Lights	100.0	99.2	100.0	-	99.2	100.0	-	91.8	-	92.4	93.0	99.0	100.0	-	97.8	100.0	100.0	100.0	-	100.0	97.5
Other Vehicles	0	1	0	0	1	0	0	7	0	7	8	5	0	0	13	0	0	0	0	0	21
% Other Vehicles	0.0	0.8	0.0	-	0.8	0.0	-	8.2	-	7.6	7.0	1.0	0.0	-	2.2	0.0	0.0	0.0	-	0.0	2.5

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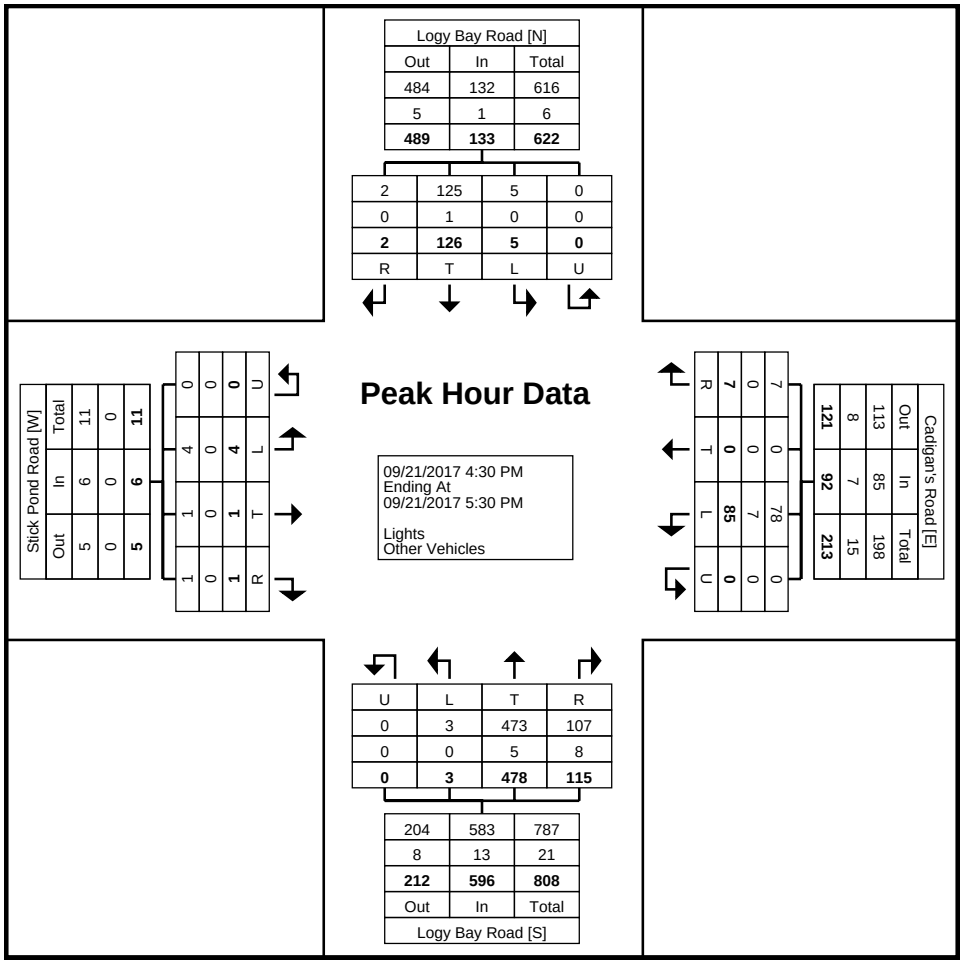
Start Date: 09/21/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Logy Bay Road & Clover Dale Close
Site Code:
Start Date: 09/27/2017

Turning Movement Data

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Clover Dale Close Eastbound				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
7:00 AM	0	16	0	16	13	0	0	13	0	0	0	0	29
7:15 AM	1	30	0	31	11	0	0	11	2	0	0	2	44
7:30 AM	0	57	0	57	16	0	0	16	1	0	0	1	74
7:45 AM	0	96	0	96	40	0	1	41	1	2	0	3	140
Hourly Total	1	199	0	200	80	0	1	81	4	2	0	6	287
8:00 AM	0	115	0	115	26	0	0	26	1	0	0	1	142
8:15 AM	0	80	0	80	10	0	0	10	0	0	0	0	90
8:30 AM	0	63	0	63	20	1	0	21	0	0	0	0	84
8:45 AM	0	37	0	37	23	0	0	23	0	0	0	0	60
Hourly Total	0	295	0	295	79	1	0	80	1	0	0	1	376
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	1	26	0	27	16	1	0	17	1	0	0	1	45
11:15 AM	0	23	0	23	20	1	0	21	0	0	0	0	44
11:30 AM	0	30	0	30	16	1	0	17	3	1	0	4	51
11:45 AM	0	24	0	24	26	0	0	26	0	0	0	0	50
Hourly Total	1	103	0	104	78	3	0	81	4	1	0	5	190
12:00 PM	0	25	0	25	42	0	0	42	0	0	0	0	67
12:15 PM	0	36	0	36	38	0	0	38	0	0	0	0	74
12:30 PM	0	31	0	31	36	0	0	36	0	0	0	0	67
12:45 PM	0	19	0	19	36	0	0	36	0	0	0	0	55
Hourly Total	0	111	0	111	152	0	0	152	0	0	0	0	263
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	21	0	21	52	1	0	53	0	0	0	0	74
4:15 PM	1	20	0	21	70	1	0	71	0	0	0	0	92
4:30 PM	0	38	0	38	66	0	0	66	0	0	0	0	104
4:45 PM	0	35	0	35	93	2	0	95	0	0	0	0	130
Hourly Total	1	114	0	115	281	4	0	285	0	0	0	0	400
5:00 PM	0	27	0	27	97	3	0	100	0	0	0	0	127
5:15 PM	1	30	0	31	77	0	0	77	0	1	0	1	109
5:30 PM	0	29	0	29	44	1	0	45	0	0	0	0	74
5:45 PM	0	32	0	32	48	0	0	48	0	0	0	0	80
Hourly Total	1	118	0	119	266	4	0	270	0	1	0	1	390
Grand Total	4	940	0	944	936	12	1	949	9	4	0	13	1906
Approach %	0.4	99.6	0.0	-	98.6	1.3	0.1	-	69.2	30.8	0.0	-	-
Total %	0.2	49.3	0.0	49.5	49.1	0.6	0.1	49.8	0.5	0.2	0.0	0.7	-
Lights	4	924	0	928	913	12	1	926	9	4	0	13	1867
% Lights	100.0	98.3	-	98.3	97.5	100.0	100.0	97.6	100.0	100.0	-	100.0	98.0
Other Vehicles	0	16	0	16	23	0	0	23	0	0	0	0	39

% Other Vehicles	0.0	1.7	-	1.7	2.5	0.0	0.0	2.4	0.0	0.0	-	0.0	2.0

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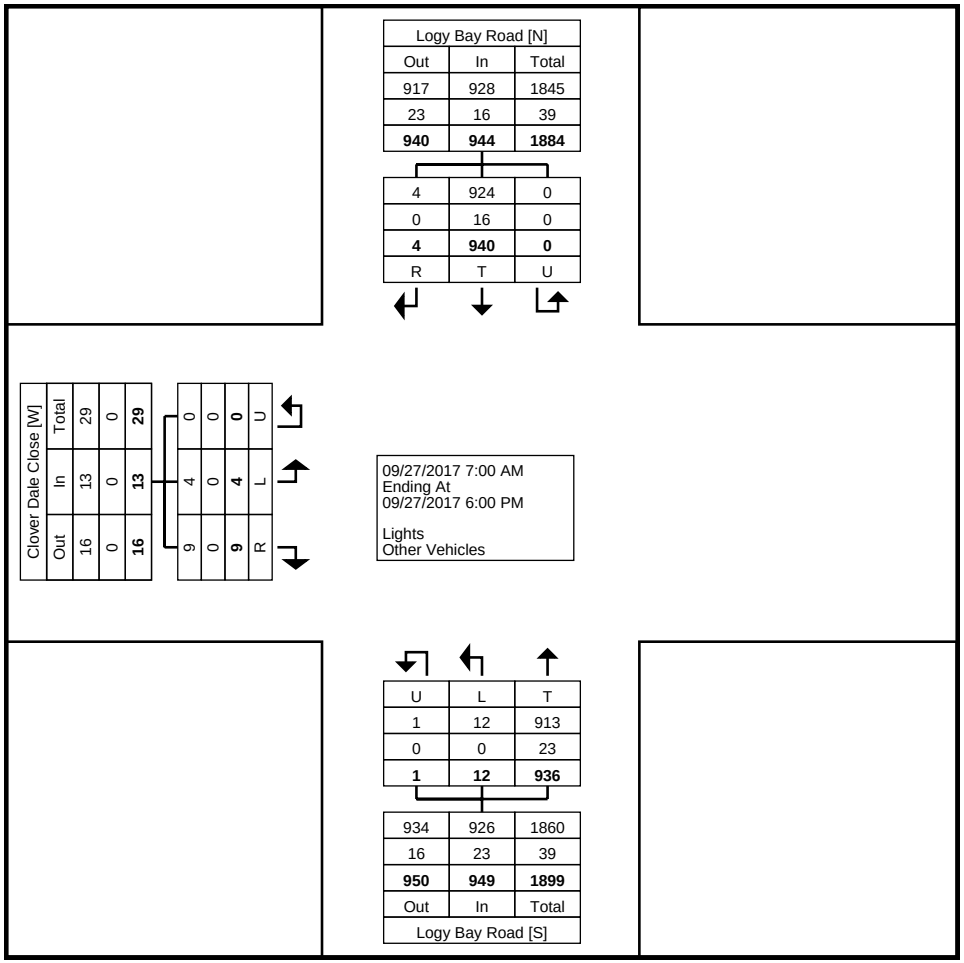
Count Name: Logy Bay Road & Clover Dale Close
Site Code:
Start Date: 09/27/2017



Turning Movement Data Plot

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Count Name: Logy Bay Road & Clover Dale Close
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Clover Dale Close Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
7:45 AM	0	96	0	96	40	0	1	41	1	2	0	3	140
8:00 AM	0	115	0	115	26	0	0	26	1	0	0	1	142
8:15 AM	0	80	0	80	10	0	0	10	0	0	0	0	90
8:30 AM	0	63	0	63	20	1	0	21	0	0	0	0	84
Total	0	354	0	354	96	1	1	98	2	2	0	4	456
Approach %	0.0	100.0	0.0	-	98.0	1.0	1.0	-	50.0	50.0	0.0	-	-
Total %	0.0	77.6	0.0	77.6	21.1	0.2	0.2	21.5	0.4	0.4	0.0	0.9	-
PHF	0.000	0.770	0.000	0.770	0.600	0.250	0.250	0.598	0.500	0.250	0.000	0.333	0.803
Lights	0	349	0	349	90	1	1	92	2	2	0	4	445
% Lights	-	98.6	-	98.6	93.8	100.0	100.0	93.9	100.0	100.0	-	100.0	97.6
Other Vehicles	0	5	0	5	6	0	0	6	0	0	0	0	11
% Other Vehicles	-	1.4	-	1.4	6.3	0.0	0.0	6.1	0.0	0.0	-	0.0	2.4

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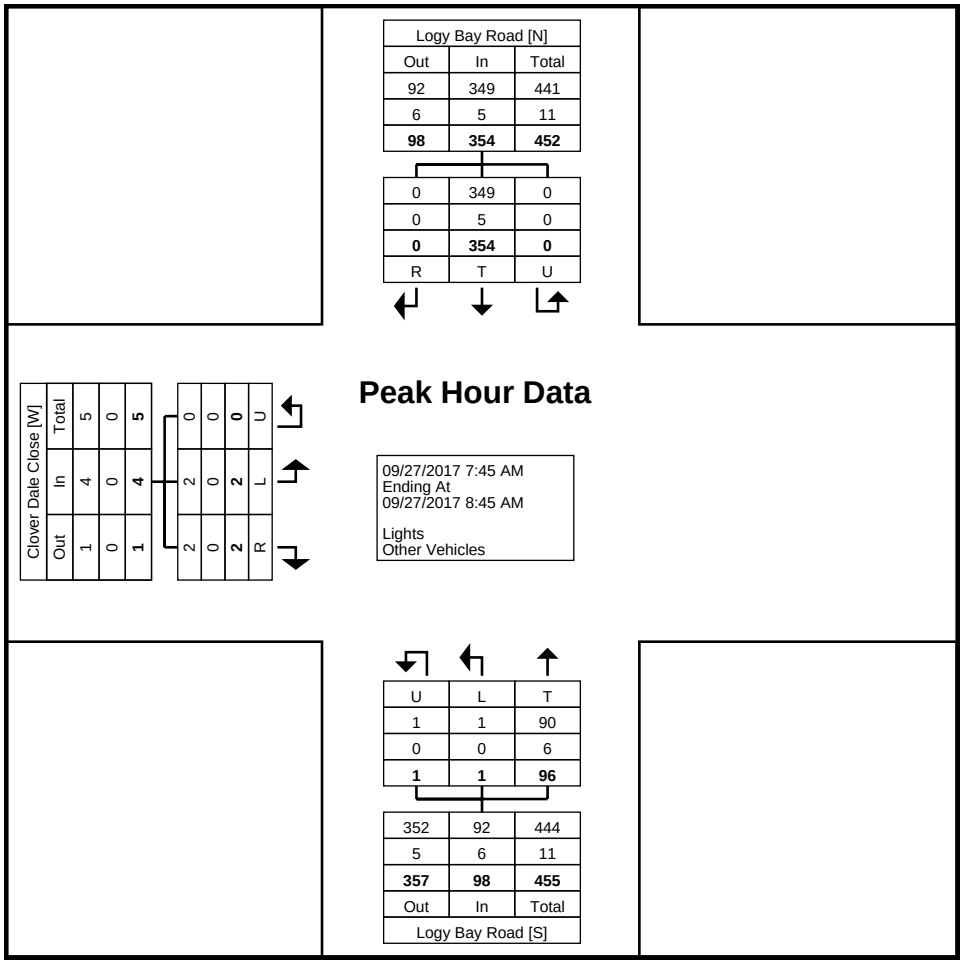
Count Name: Logy Bay Road & Clover Dale Close
Site Code:
Start Date: 09/27/2017



Turning Movement Peak Hour Data Plot (7:45 AM)

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Count Name: Logy Bay Road & Clover Dale Close
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Clover Dale Close Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
12:00 PM	0	25	0	25	42	0	0	42	0	0	0	0	67
12:15 PM	0	36	0	36	38	0	0	38	0	0	0	0	74
12:30 PM	0	31	0	31	36	0	0	36	0	0	0	0	67
12:45 PM	0	19	0	19	36	0	0	36	0	0	0	0	55
Total	0	111	0	111	152	0	0	152	0	0	0	0	263
Approach %	0.0	100.0	0.0	-	100.0	0.0	0.0	-	NaN	NaN	NaN	-	-
Total %	0.0	42.2	0.0	42.2	57.8	0.0	0.0	57.8	0.0	0.0	0.0	0.0	-
PHF	0.000	0.771	0.000	0.771	0.905	0.000	0.000	0.905	0.000	0.000	0.000	0.000	0.889
Lights	0	108	0	108	147	0	0	147	0	0	0	0	255
% Lights	-	97.3	-	97.3	96.7	-	-	96.7	-	-	-	-	97.0
Other Vehicles	0	3	0	3	5	0	0	5	0	0	0	0	8
% Other Vehicles	-	2.7	-	2.7	3.3	-	-	3.3	-	-	-	-	3.0

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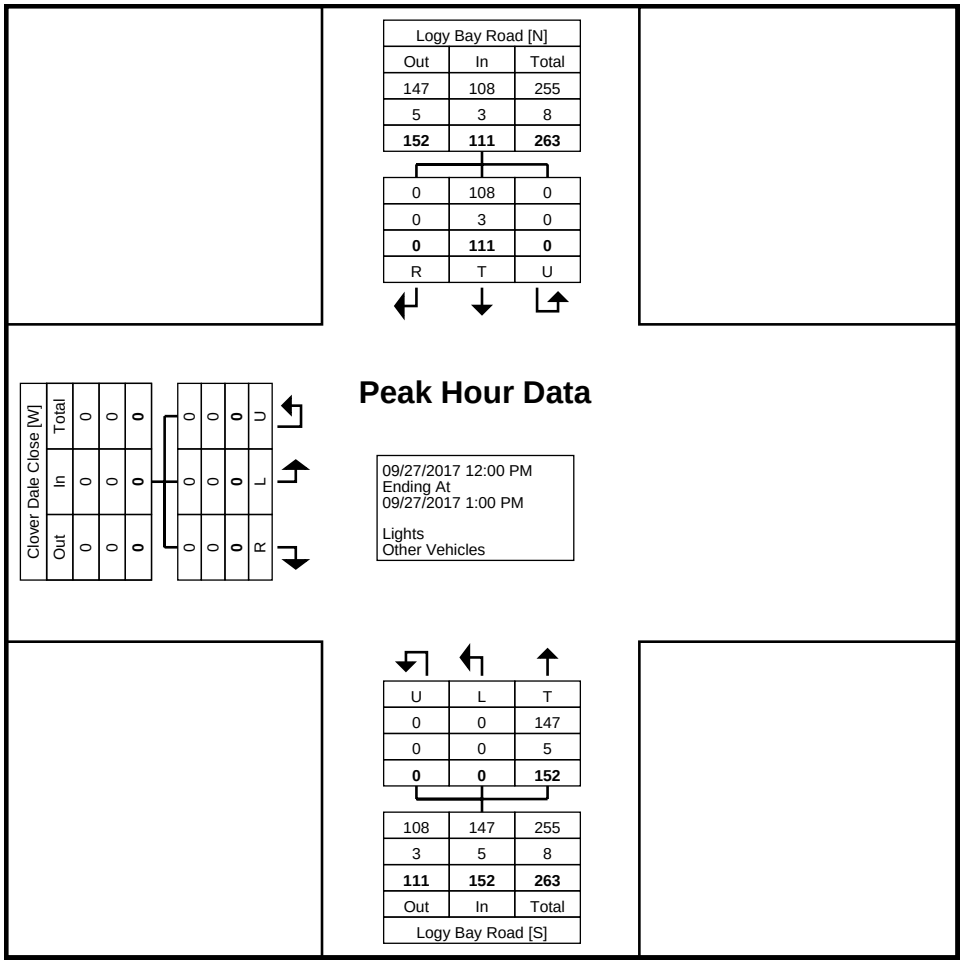

Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Logy Bay Road & Clover Dale Close
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Clover Dale Close Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
4:30 PM	0	38	0	38	66	0	0	66	0	0	0	0	104
4:45 PM	0	35	0	35	93	2	0	95	0	0	0	0	130
5:00 PM	0	27	0	27	97	3	0	100	0	0	0	0	127
5:15 PM	1	30	0	31	77	0	0	77	0	1	0	1	109
Total	1	130	0	131	333	5	0	338	0	1	0	1	470
Approach %	0.8	99.2	0.0	-	98.5	1.5	0.0	-	0.0	100.0	0.0	-	-
Total %	0.2	27.7	0.0	27.9	70.9	1.1	0.0	71.9	0.0	0.2	0.0	0.2	-
PHF	0.250	0.855	0.000	0.862	0.858	0.417	0.000	0.845	0.000	0.250	0.000	0.250	0.904
Lights	1	128	0	129	328	5	0	333	0	1	0	1	463
% Lights	100.0	98.5	-	98.5	98.5	100.0	-	98.5	-	100.0	-	100.0	98.5
Other Vehicles	0	2	0	2	5	0	0	5	0	0	0	0	7
% Other Vehicles	0.0	1.5	-	1.5	1.5	0.0	-	1.5	-	0.0	-	0.0	1.5

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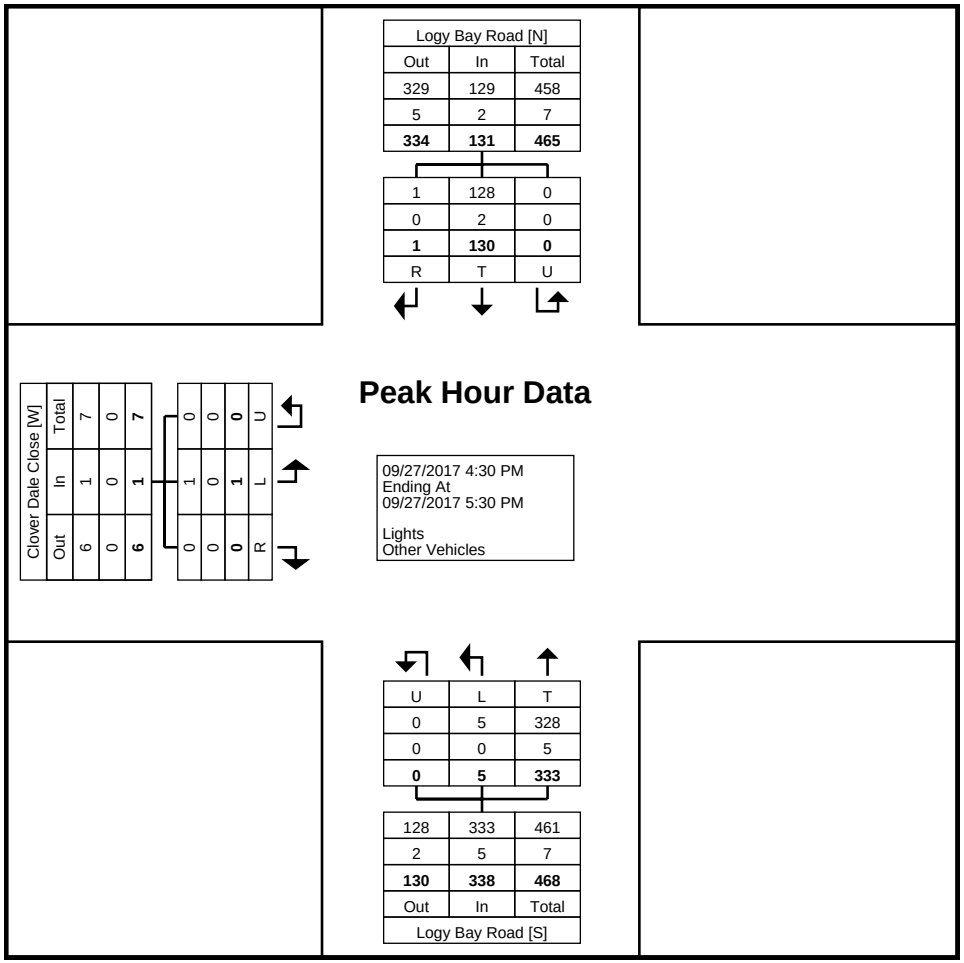
Site Code:
Start Date: 09/27/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Logy Bay Road & Marine Drive
Site Code:
Start Date: 09/27/2017

Turning Movement Data

Start Time	Logy Bay Road Southbound					Marine Drive Westbound					Logy Bay Road Northbound					TCH West On Ramp Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:00 AM	9	22	0	0	31	0	2	5	0	7	3	15	24	0	42	0	0	0	0	0	80
7:15 AM	13	34	1	0	48	1	3	7	0	11	2	24	29	0	55	0	0	0	0	0	114
7:30 AM	21	96	1	0	118	3	4	11	0	18	5	32	73	0	110	0	0	0	0	0	246
7:45 AM	37	110	2	0	149	1	4	8	0	13	5	45	47	0	97	0	0	0	0	0	259
Hourly Total	80	262	4	0	346	5	13	31	0	49	15	116	173	0	304	0	0	0	0	0	699
8:00 AM	32	122	1	0	155	3	2	3	0	8	8	38	58	0	104	0	0	0	0	0	267
8:15 AM	23	107	0	0	130	1	3	11	0	15	8	31	81	0	120	0	0	0	0	0	265
8:30 AM	23	94	2	0	119	0	3	4	0	7	6	45	68	0	119	0	0	0	0	0	245
8:45 AM	11	59	0	0	70	1	3	3	0	7	10	61	51	0	122	0	0	0	0	0	199
Hourly Total	89	382	3	0	474	5	11	21	0	37	32	175	258	0	465	0	0	0	0	0	976
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	6	43	2	0	51	1	1	6	0	8	9	49	44	0	102	0	0	0	0	0	161
11:15 AM	10	46	2	0	58	0	3	2	0	5	5	48	35	0	88	0	0	0	0	0	151
11:30 AM	18	62	6	1	87	3	6	4	0	13	14	44	56	0	114	0	0	0	0	0	214
11:45 AM	9	51	2	0	62	3	2	2	0	7	7	50	54	0	111	0	0	0	0	0	180
Hourly Total	43	202	12	1	258	7	12	14	0	33	35	191	189	0	415	0	0	0	0	0	706
12:00 PM	13	56	2	0	71	1	3	5	0	9	13	91	60	0	164	0	0	0	0	0	244
12:15 PM	10	53	5	0	68	3	4	5	0	12	13	64	68	0	145	0	0	0	0	0	225
12:30 PM	19	59	3	0	81	3	5	5	0	13	12	72	62	0	146	0	0	0	0	0	240
12:45 PM	8	65	5	0	78	1	4	7	0	12	10	55	68	0	133	0	0	0	0	0	223
Hourly Total	50	233	15	0	298	8	16	22	0	46	48	282	258	0	588	0	0	0	0	0	932
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	11	54	3	0	68	5	4	3	0	12	9	122	74	0	205	1	0	0	0	1	286
4:15 PM	12	49	5	0	66	2	2	7	0	11	4	101	92	0	197	0	0	0	0	0	274
4:30 PM	24	58	0	0	82	2	6	3	0	11	16	115	100	0	231	0	0	0	0	0	324
4:45 PM	17	43	7	0	67	6	9	4	0	19	14	184	65	1	264	0	0	0	0	0	350
Hourly Total	64	204	15	0	283	15	21	17	0	53	43	522	331	1	897	1	0	0	0	1	1234
5:00 PM	5	47	3	0	55	1	3	5	0	9	18	158	81	0	257	0	0	0	0	0	321
5:15 PM	11	51	3	0	65	2	4	7	0	13	19	150	76	0	245	0	0	0	0	0	323
5:30 PM	17	48	2	0	67	2	1	2	0	5	12	98	59	0	169	0	0	0	0	0	241
5:45 PM	19	49	2	0	70	1	3	4	0	8	10	83	54	0	147	0	0	0	0	0	225
Hourly Total	52	195	10	0	257	6	11	18	0	35	59	489	270	0	818	0	0	0	0	0	1110
Grand Total	378	1478	59	1	1916	46	84	123	0	253	232	1775	1479	1	3487	1	0	0	0	1	5657
Approach %	19.7	77.1	3.1	0.1	-	18.2	33.2	48.6	0.0	-	6.7	50.9	42.4	0.0	-	100.0	0.0	0.0	0.0	-	-
Total %	6.7	26.1	1.0	0.0	33.9	0.8	1.5	2.2	0.0	4.5	4.1	31.4	26.1	0.0	61.6	0.0	0.0	0.0	0.0	0.0	-
Lights	370	1456	56	1	1883	43	81	122	0	246	227	1736	1433	1	3397	1	0	0	0	1	5527
% Lights	97.9	98.5	94.9	100.0	98.3	93.5	96.4	99.2	-	97.2	97.8	97.8	96.9	100.0	97.4	100.0	-	-	-	100.0	97.7
Other Vehicles	8	22	3	0	33	3	3	1	0	7	5	39	46	0	90	0	0	0	0	0	130

% Other Vehicles	2.1	1.5	5.1	0.0	1.7	6.5	3.6	0.8	-	2.8	2.2	2.2	3.1	0.0	2.6	0.0	-	-	-	0.0	2.3

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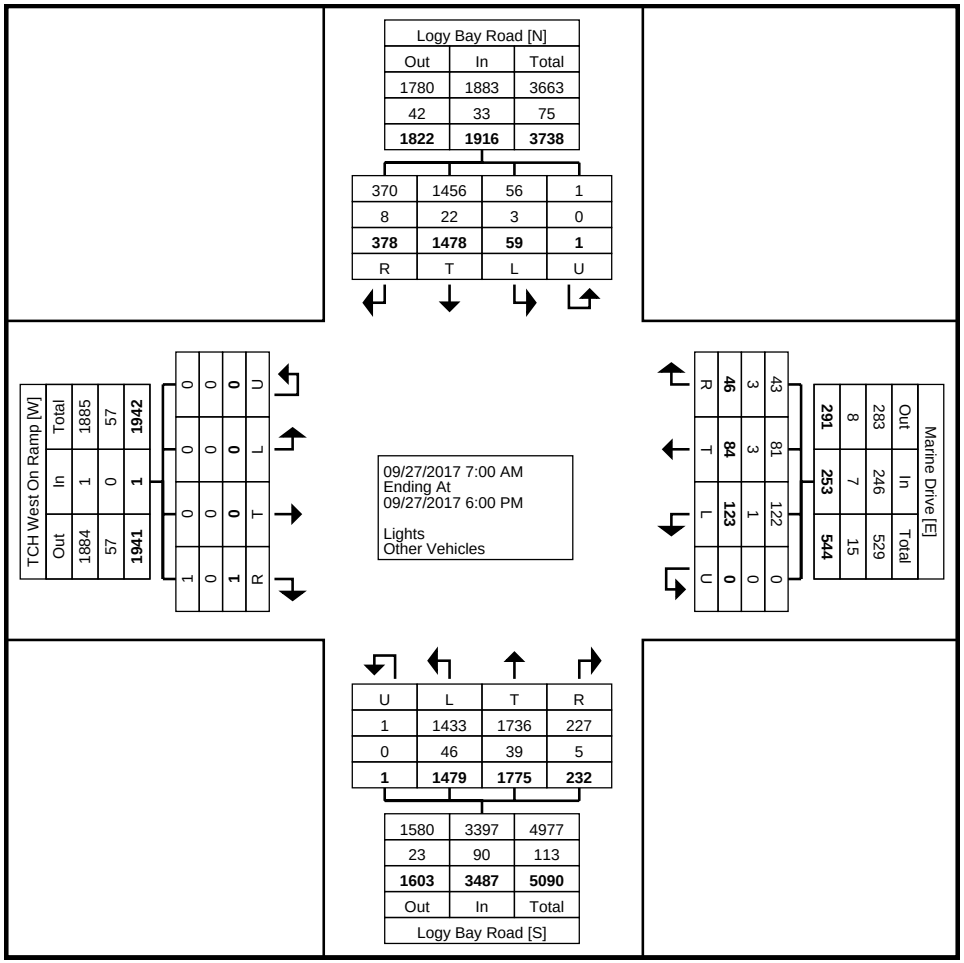
Site Code:
Start Date: 09/27/2017



Turning Movement Data Plot

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Start Date: 09/27/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Logy Bay Road Southbound					Marine Drive Westbound					Logy Bay Road Northbound					TCH West On Ramp Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:30 AM	21	96	1	0	118	3	4	11	0	18	5	32	73	0	110	0	0	0	0	0	246
7:45 AM	37	110	2	0	149	1	4	8	0	13	5	45	47	0	97	0	0	0	0	0	259
8:00 AM	32	122	1	0	155	3	2	3	0	8	8	38	58	0	104	0	0	0	0	0	267
8:15 AM	23	107	0	0	130	1	3	11	0	15	8	31	81	0	120	0	0	0	0	0	265
Total	113	435	4	0	552	8	13	33	0	54	26	146	259	0	431	0	0	0	0	0	1037
Approach %	20.5	78.8	0.7	0.0	-	14.8	24.1	61.1	0.0	-	6.0	33.9	60.1	0.0	-	NaN	NaN	NaN	NaN	-	-
Total %	10.9	41.9	0.4	0.0	53.2	0.8	1.3	3.2	0.0	5.2	2.5	14.1	25.0	0.0	41.6	0.0	0.0	0.0	0.0	0.0	-
PHF	0.764	0.891	0.500	0.000	0.890	0.667	0.813	0.750	0.000	0.750	0.813	0.811	0.799	0.000	0.898	0.000	0.000	0.000	0.000	0.000	0.971
Lights	110	430	3	0	543	6	13	33	0	52	26	140	248	0	414	0	0	0	0	0	1009
% Lights	97.3	98.9	75.0	-	98.4	75.0	100.0	100.0	-	96.3	100.0	95.9	95.8	-	96.1	-	-	-	-	-	97.3
Other Vehicles	3	5	1	0	9	2	0	0	0	2	0	6	11	0	17	0	0	0	0	0	28
% Other Vehicles	2.7	1.1	25.0	-	1.6	25.0	0.0	0.0	-	3.7	0.0	4.1	4.2	-	3.9	-	-	-	-	-	2.7

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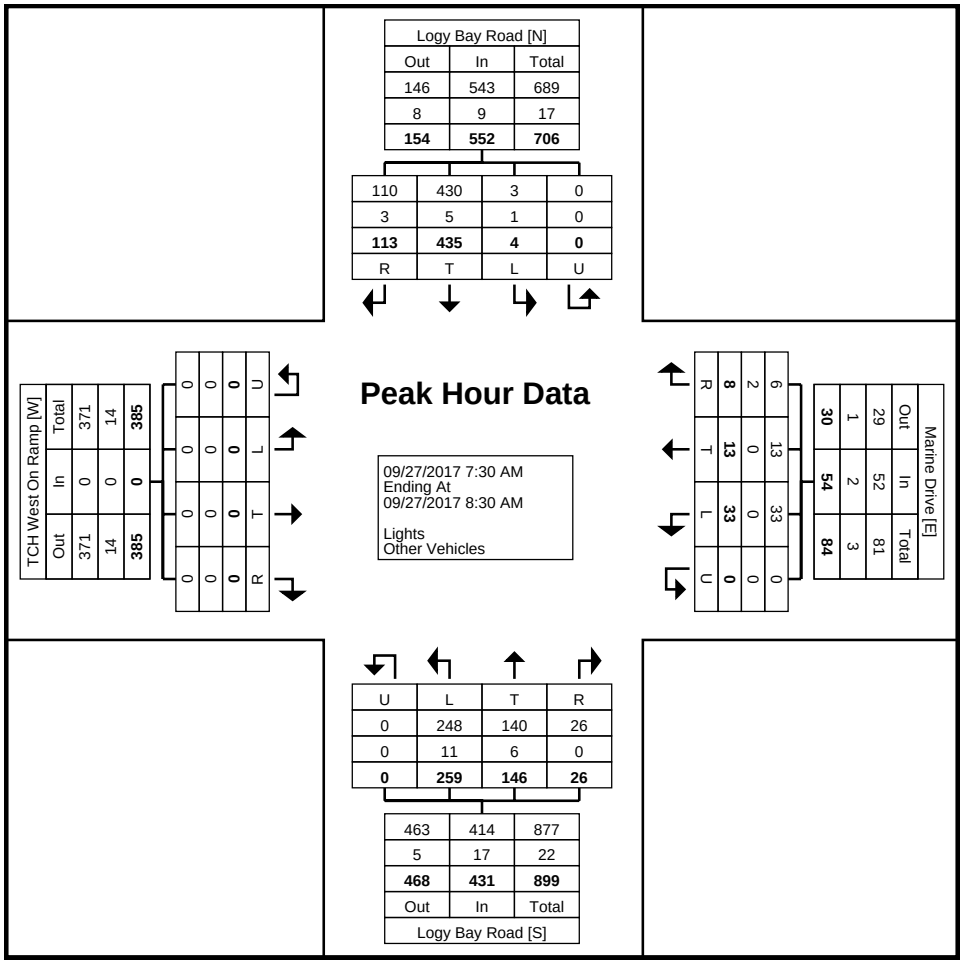

Turning Movement Peak Hour Data Plot (7:30 AM)

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Turning Movement Peak Hour Data (12:00 PM)

Start Time	Logy Bay Road Southbound					Marine Drive Westbound					Logy Bay Road Northbound					TCH West On Ramp Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	13	56	2	0	71	1	3	5	0	9	13	91	60	0	164	0	0	0	0	0	244
12:15 PM	10	53	5	0	68	3	4	5	0	12	13	64	68	0	145	0	0	0	0	0	225
12:30 PM	19	59	3	0	81	3	5	5	0	13	12	72	62	0	146	0	0	0	0	0	240
12:45 PM	8	65	5	0	78	1	4	7	0	12	10	55	68	0	133	0	0	0	0	0	223
Total	50	233	15	0	298	8	16	22	0	46	48	282	258	0	588	0	0	0	0	0	932
Approach %	16.8	78.2	5.0	0.0	-	17.4	34.8	47.8	0.0	-	8.2	48.0	43.9	0.0	-	NaN	NaN	NaN	NaN	-	-
Total %	5.4	25.0	1.6	0.0	32.0	0.9	1.7	2.4	0.0	4.9	5.2	30.3	27.7	0.0	63.1	0.0	0.0	0.0	0.0	0.0	-
PHF	0.658	0.896	0.750	0.000	0.920	0.667	0.800	0.786	0.000	0.885	0.923	0.775	0.949	0.000	0.896	0.000	0.000	0.000	0.000	0.000	0.955
Lights	49	225	14	0	288	7	15	22	0	44	46	275	247	0	568	0	0	0	0	0	900
% Lights	98.0	96.6	93.3	-	96.6	87.5	93.8	100.0	-	95.7	95.8	97.5	95.7	-	96.6	-	-	-	-	-	96.6
Other Vehicles	1	8	1	0	10	1	1	0	0	2	2	7	11	0	20	0	0	0	0	0	32
% Other Vehicles	2.0	3.4	6.7	-	3.4	12.5	6.3	0.0	-	4.3	4.2	2.5	4.3	-	3.4	-	-	-	-	-	3.4

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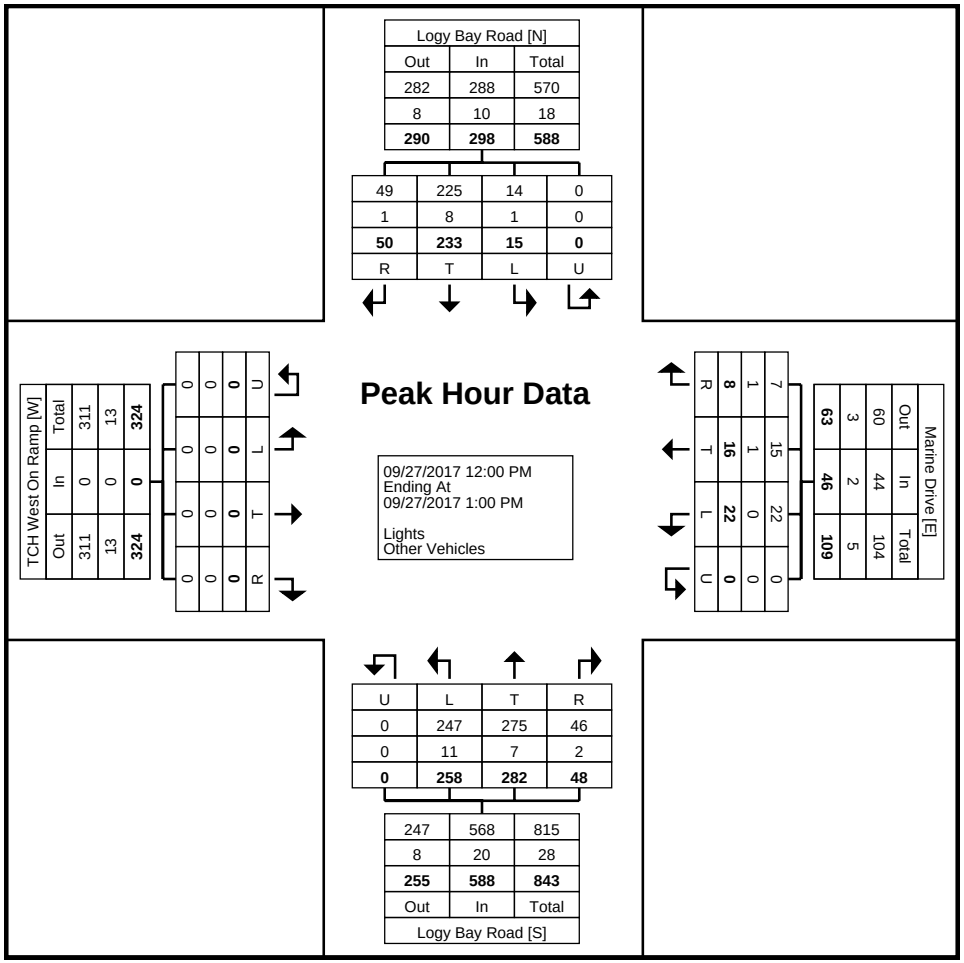
Count Name: Logy Bay Road & Marine Drive
Site Code:
Start Date: 09/27/2017



Turning Movement Peak Hour Data Plot (12:00 PM)

Harbourside Transportation Consultants
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Count Name: Logy Bay Road & Marine Drive
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Logy Bay Road Southbound					Marine Drive Westbound					Logy Bay Road Northbound					TCH West On Ramp Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:30 PM	24	58	0	0	82	2	6	3	0	11	16	115	100	0	231	0	0	0	0	0	324
4:45 PM	17	43	7	0	67	6	9	4	0	19	14	184	65	1	264	0	0	0	0	0	350
5:00 PM	5	47	3	0	55	1	3	5	0	9	18	158	81	0	257	0	0	0	0	0	321
5:15 PM	11	51	3	0	65	2	4	7	0	13	19	150	76	0	245	0	0	0	0	0	323
Total	57	199	13	0	269	11	22	19	0	52	67	607	322	1	997	0	0	0	0	0	1318
Approach %	21.2	74.0	4.8	0.0	-	21.2	42.3	36.5	0.0	-	6.7	60.9	32.3	0.1	-	NaN	NaN	NaN	NaN	-	-
Total %	4.3	15.1	1.0	0.0	20.4	0.8	1.7	1.4	0.0	3.9	5.1	46.1	24.4	0.1	75.6	0.0	0.0	0.0	0.0	0.0	-
PHF	0.594	0.858	0.464	0.000	0.820	0.458	0.611	0.679	0.000	0.684	0.882	0.825	0.805	0.250	0.944	0.000	0.000	0.000	0.000	0.000	0.941
Lights	54	199	13	0	266	11	21	19	0	51	65	599	316	1	981	0	0	0	0	0	1298
% Lights	94.7	100.0	100.0	-	98.9	100.0	95.5	100.0	-	98.1	97.0	98.7	98.1	100.0	98.4	-	-	-	-	-	98.5
Other Vehicles	3	0	0	0	3	0	1	0	0	1	2	8	6	0	16	0	0	0	0	0	20
% Other Vehicles	5.3	0.0	0.0	-	1.1	0.0	4.5	0.0	-	1.9	3.0	1.3	1.9	0.0	1.6	-	-	-	-	-	1.5

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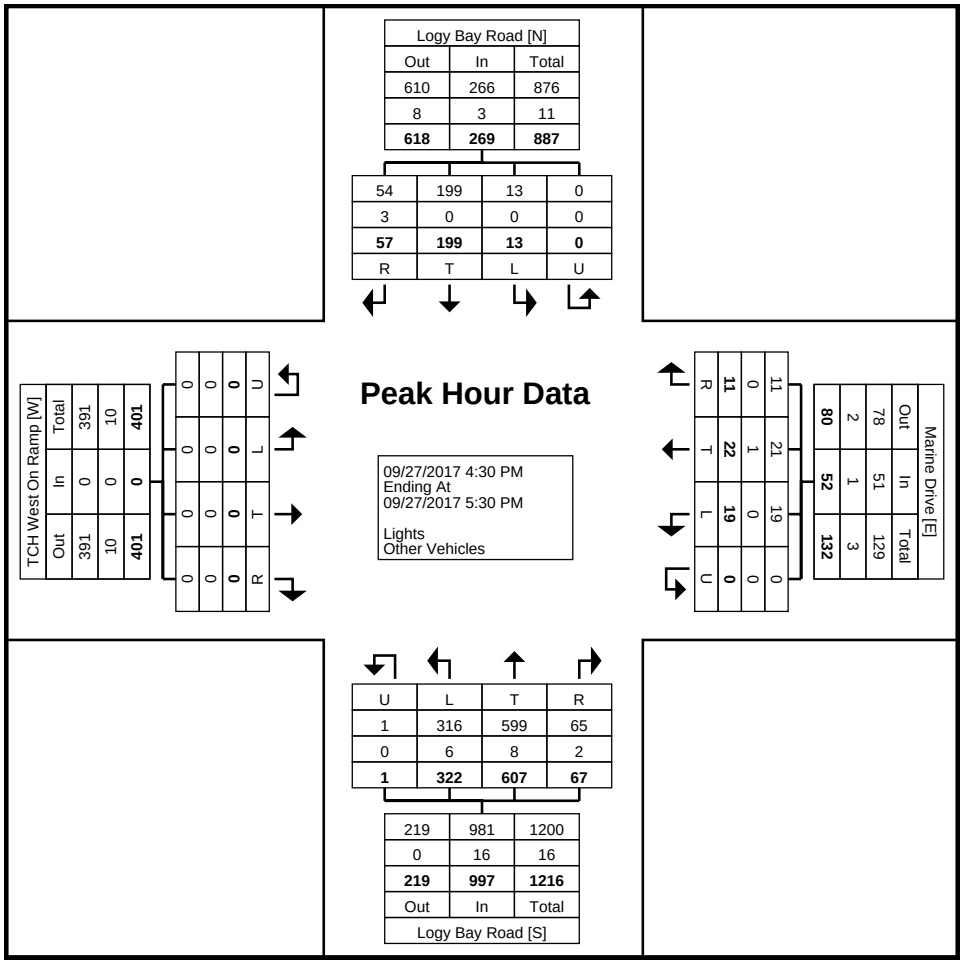
Count Name: Logy Bay Road & Marine Drive
Site Code:
Start Date: 09/27/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017

Turning Movement Data

Start Time	Lower Road Southbound					Savage Creek Road Westbound					Logy Bay Road Northbound					Outer Cove Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:00 AM	0	3	0	0	3	0	0	0	0	0	0	3	5	0	8	10	0	0	0	10	21
7:15 AM	0	14	0	0	14	0	0	0	0	0	0	3	7	0	10	16	0	1	0	17	41
7:30 AM	0	24	0	0	24	0	0	1	0	1	0	4	17	0	21	41	0	0	0	41	87
7:45 AM	6	20	0	0	26	0	0	0	0	0	0	11	30	0	41	80	0	2	0	82	149
Hourly Total	6	61	0	0	67	0	0	1	0	1	0	21	59	0	80	147	0	3	0	150	298
8:00 AM	1	22	0	0	23	0	0	1	0	1	0	7	23	0	30	88	0	2	0	90	144
8:15 AM	0	18	0	0	18	0	0	2	0	2	0	6	16	0	22	42	0	0	0	42	84
8:30 AM	0	10	0	0	10	0	0	0	0	0	0	3	13	0	16	41	0	1	0	42	68
8:45 AM	0	16	0	0	16	0	0	0	0	0	0	7	14	0	21	26	0	0	0	26	63
Hourly Total	1	66	0	0	67	0	0	3	0	3	0	23	66	0	89	197	0	3	0	200	359
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	9	0	0	9	0	0	0	0	0	0	9	14	0	23	12	0	0	0	12	44
11:15 AM	0	10	0	0	10	0	0	0	0	0	1	13	17	0	31	22	0	0	0	22	63
11:30 AM	3	8	0	0	11	0	0	1	0	1	1	7	21	0	29	11	0	0	0	11	52
11:45 AM	1	10	0	0	11	0	0	0	0	0	0	14	22	0	36	22	0	0	0	22	69
Hourly Total	4	37	0	0	41	0	0	1	0	1	2	43	74	0	119	67	0	0	0	67	228
12:00 PM	2	9	0	0	11	0	0	0	0	0	0	13	28	0	41	12	0	1	0	13	65
12:15 PM	0	5	0	0	5	0	0	0	0	0	1	10	36	0	47	13	0	1	0	14	66
12:30 PM	1	10	0	0	11	0	0	1	0	1	0	14	26	0	40	20	0	1	0	21	73
12:45 PM	2	9	0	0	11	0	0	0	0	0	0	16	20	0	36	25	0	0	0	25	72
Hourly Total	5	33	0	0	38	0	0	1	0	1	1	53	110	0	164	70	0	3	0	73	276
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	1	0	0	3	0	0	0	0	0	2	16	39	0	57	13	0	1	0	14	74
4:15 PM	0	9	0	0	9	0	0	0	0	0	1	17	49	0	67	21	1	0	0	22	98
4:30 PM	0	11	1	0	12	0	0	1	0	1	1	14	79	0	94	23	0	0	0	23	130
4:45 PM	0	8	0	0	8	0	0	1	0	1	0	22	98	0	120	19	1	0	0	20	149
Hourly Total	2	29	1	0	32	0	0	2	0	2	4	69	265	0	338	76	2	1	0	79	451
5:00 PM	0	12	0	0	12	0	0	0	0	0	0	27	105	0	132	18	0	0	0	18	162
5:15 PM	0	7	0	0	7	0	0	0	0	0	0	24	88	0	112	19	0	1	0	20	139
5:30 PM	0	11	1	0	12	0	0	0	0	0	1	16	46	0	63	25	0	0	0	25	100
5:45 PM	0	6	0	0	6	0	0	1	0	1	1	10	51	0	62	16	0	0	0	16	85
Hourly Total	0	36	1	0	37	0	0	1	0	1	2	77	290	0	369	78	0	1	0	79	486
Grand Total	18	262	2	0	282	0	0	9	0	9	9	286	864	0	1159	635	2	11	0	648	2098
Approach %	6.4	92.9	0.7	0.0	-	0.0	0.0	100.0	0.0	-	0.8	24.7	74.5	0.0	-	98.0	0.3	1.7	0.0	-	-
Total %	0.9	12.5	0.1	0.0	13.4	0.0	0.0	0.4	0.0	0.4	0.4	13.6	41.2	0.0	55.2	30.3	0.1	0.5	0.0	30.9	-
Lights	15	258	2	0	275	0	0	9	0	9	9	281	845	0	1135	623	2	9	0	634	2053
% Lights	83.3	98.5	100.0	-	97.5	-	-	100.0	-	100.0	100.0	98.3	97.8	-	97.9	98.1	100.0	81.8	-	97.8	97.9
Other Vehicles	3	4	0	0	7	0	0	0	0	0	0	5	19	0	24	12	0	2	0	14	45

% Other Vehicles	16.7	1.5	0.0	-	2.5	-	-	0.0	-	0.0	0.0	1.7	2.2	-	2.1	1.9	0.0	18.2	-	2.2	2.1

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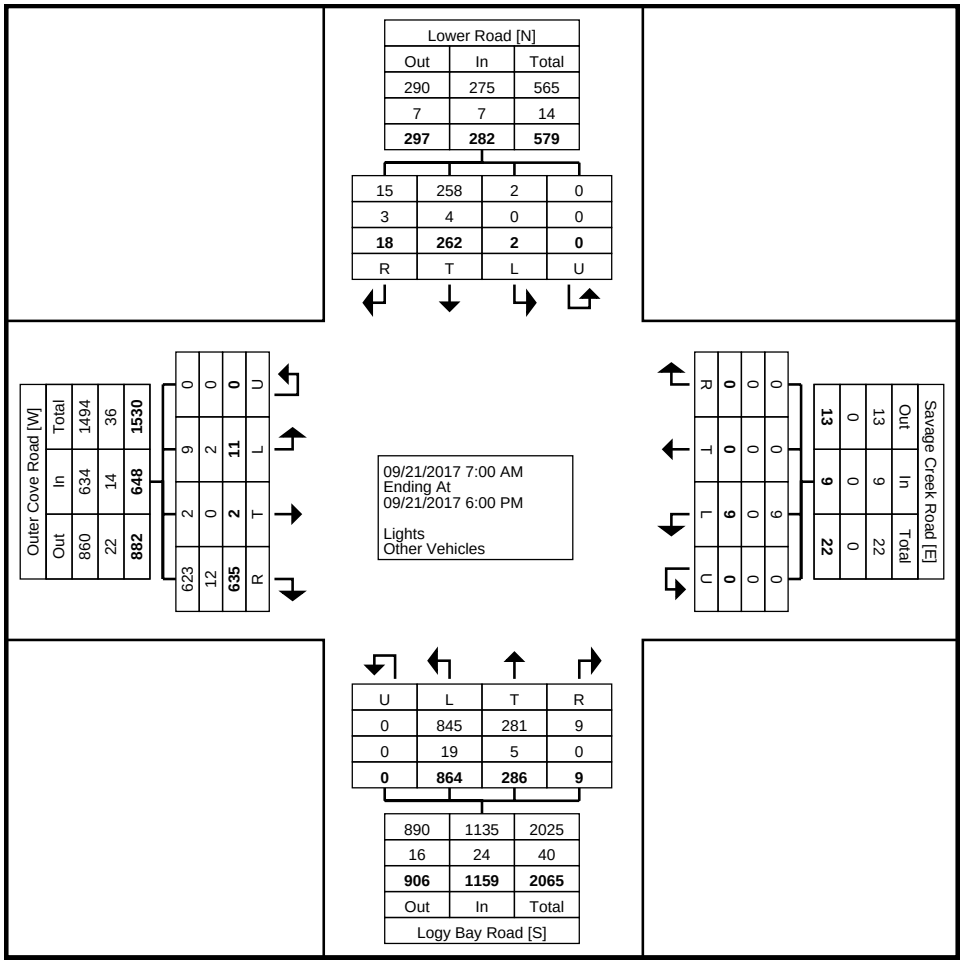
Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017



Turning Movement Data Plot

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Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Lower Road Southbound					Savage Creek Road Westbound					Logy Bay Road Northbound					Outer Cove Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:30 AM	0	24	0	0	24	0	0	1	0	1	0	4	17	0	21	41	0	0	0	41	87
7:45 AM	6	20	0	0	26	0	0	0	0	0	0	11	30	0	41	80	0	2	0	82	149
8:00 AM	1	22	0	0	23	0	0	1	0	1	0	7	23	0	30	88	0	2	0	90	144
8:15 AM	0	18	0	0	18	0	0	2	0	2	0	6	16	0	22	42	0	0	0	42	84
Total	7	84	0	0	91	0	0	4	0	4	0	28	86	0	114	251	0	4	0	255	464
Approach %	7.7	92.3	0.0	0.0	-	0.0	0.0	100.0	0.0	-	0.0	24.6	75.4	0.0	-	98.4	0.0	1.6	0.0	-	-
Total %	1.5	18.1	0.0	0.0	19.6	0.0	0.0	0.9	0.0	0.9	0.0	6.0	18.5	0.0	24.6	54.1	0.0	0.9	0.0	55.0	-
PHF	0.292	0.875	0.000	0.000	0.875	0.000	0.000	0.500	0.000	0.500	0.000	0.636	0.717	0.000	0.695	0.713	0.000	0.500	0.000	0.708	0.779
Lights	6	83	0	0	89	0	0	4	0	4	0	27	80	0	107	244	0	4	0	248	448
% Lights	85.7	98.8	-	-	97.8	-	-	100.0	-	100.0	-	96.4	93.0	-	93.9	97.2	-	100.0	-	97.3	96.6
Other Vehicles	1	1	0	0	2	0	0	0	0	0	0	1	6	0	7	7	0	0	0	7	16
% Other Vehicles	14.3	1.2	-	-	2.2	-	-	0.0	-	0.0	-	3.6	7.0	-	6.1	2.8	-	0.0	-	2.7	3.4

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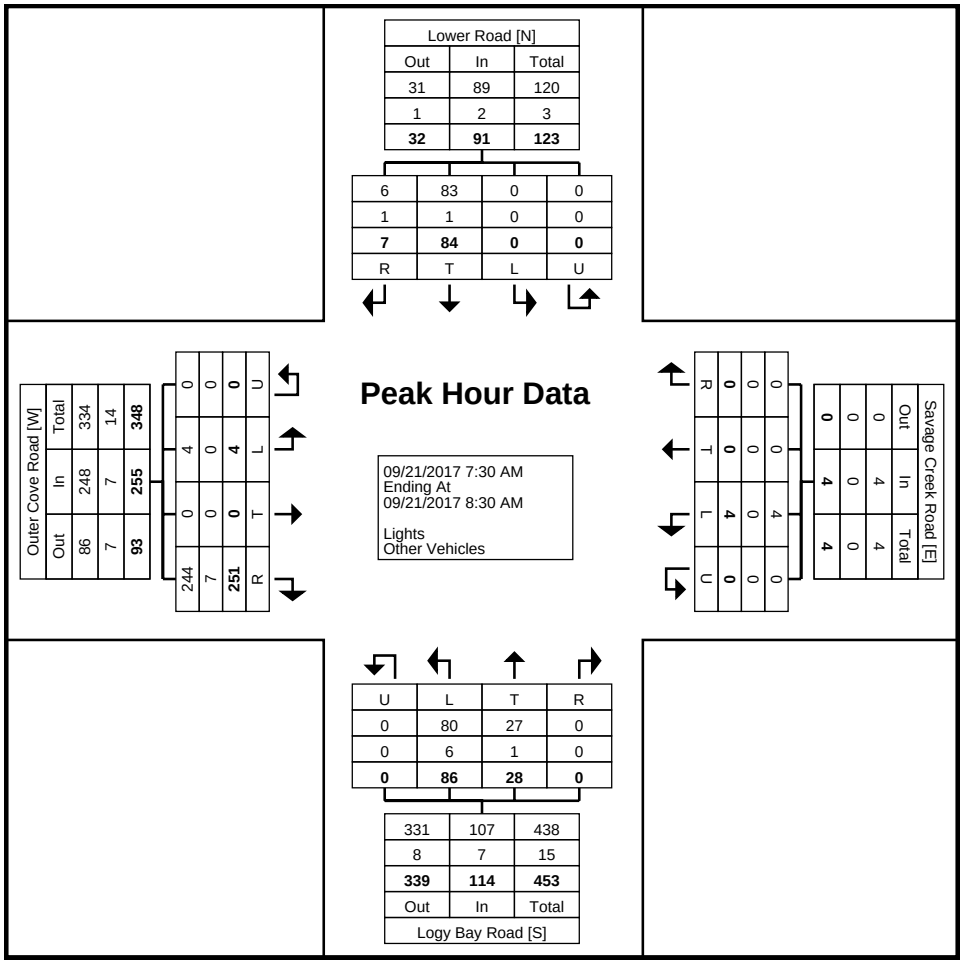
Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017



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

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Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Lower Road Southbound					Savage Creek Road Westbound					Logy Bay Road Northbound					Outer Cove Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	2	9	0	0	11	0	0	0	0	0	0	13	28	0	41	12	0	1	0	13	65
12:15 PM	0	5	0	0	5	0	0	0	0	0	1	10	36	0	47	13	0	1	0	14	66
12:30 PM	1	10	0	0	11	0	0	1	0	1	0	14	26	0	40	20	0	1	0	21	73
12:45 PM	2	9	0	0	11	0	0	0	0	0	0	16	20	0	36	25	0	0	0	25	72
Total	5	33	0	0	38	0	0	1	0	1	1	53	110	0	164	70	0	3	0	73	276
Approach %	13.2	86.8	0.0	0.0	-	0.0	0.0	100.0	0.0	-	0.6	32.3	67.1	0.0	-	95.9	0.0	4.1	0.0	-	-
Total %	1.8	12.0	0.0	0.0	13.8	0.0	0.0	0.4	0.0	0.4	0.4	19.2	39.9	0.0	59.4	25.4	0.0	1.1	0.0	26.4	-
PHF	0.625	0.825	0.000	0.000	0.864	0.000	0.000	0.250	0.000	0.250	0.250	0.828	0.764	0.000	0.872	0.700	0.000	0.750	0.000	0.730	0.945
Lights	4	32	0	0	36	0	0	1	0	1	1	53	109	0	163	69	0	2	0	71	271
% Lights	80.0	97.0	-	-	94.7	-	-	100.0	-	100.0	100.0	100.0	99.1	-	99.4	98.6	-	66.7	-	97.3	98.2
Other Vehicles	1	1	0	0	2	0	0	0	0	0	0	0	1	0	1	1	0	1	0	2	5
% Other Vehicles	20.0	3.0	-	-	5.3	-	-	0.0	-	0.0	0.0	0.0	0.9	-	0.6	1.4	-	33.3	-	2.7	1.8

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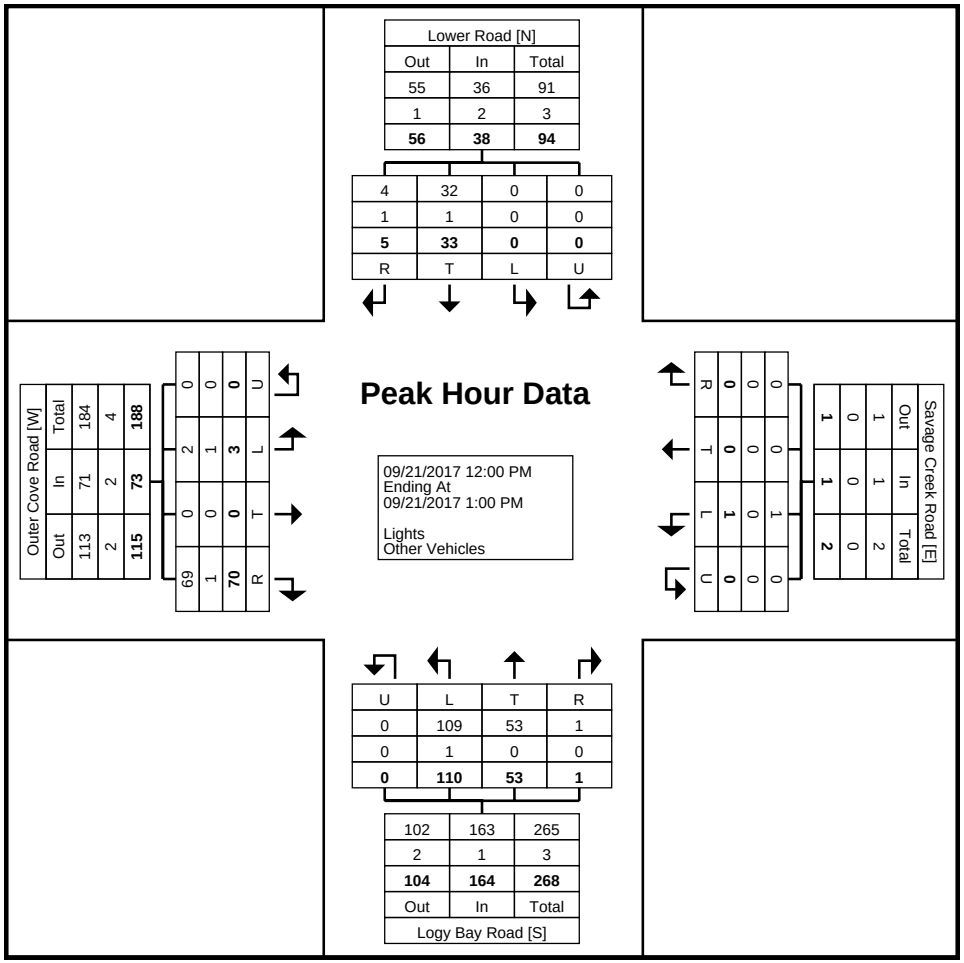
Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017



Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Lower Road Southbound					Savage Creek Road Westbound					Logy Bay Road Northbound					Outer Cove Road Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:30 PM	0	11	1	0	12	0	0	1	0	1	1	14	79	0	94	23	0	0	0	23	130
4:45 PM	0	8	0	0	8	0	0	1	0	1	0	22	98	0	120	19	1	0	0	20	149
5:00 PM	0	12	0	0	12	0	0	0	0	0	0	27	105	0	132	18	0	0	0	18	162
5:15 PM	0	7	0	0	7	0	0	0	0	0	0	24	88	0	112	19	0	1	0	20	139
Total	0	38	1	0	39	0	0	2	0	2	1	87	370	0	458	79	1	1	0	81	580
Approach %	0.0	97.4	2.6	0.0	-	0.0	0.0	100.0	0.0	-	0.2	19.0	80.8	0.0	-	97.5	1.2	1.2	0.0	-	-
Total %	0.0	6.6	0.2	0.0	6.7	0.0	0.0	0.3	0.0	0.3	0.2	15.0	63.8	0.0	79.0	13.6	0.2	0.2	0.0	14.0	-
PHF	0.000	0.792	0.250	0.000	0.813	0.000	0.000	0.500	0.000	0.500	0.250	0.806	0.881	0.000	0.867	0.859	0.250	0.250	0.000	0.880	0.895
Lights	0	37	1	0	38	0	0	2	0	2	1	84	366	0	451	79	1	1	0	81	572
% Lights	-	97.4	100.0	-	97.4	-	-	100.0	-	100.0	100.0	96.6	98.9	-	98.5	100.0	100.0	100.0	-	100.0	98.6
Other Vehicles	0	1	0	0	1	0	0	0	0	0	0	3	4	0	7	0	0	0	0	0	8
% Other Vehicles	-	2.6	0.0	-	2.6	-	-	0.0	-	0.0	0.0	3.4	1.1	-	1.5	0.0	0.0	0.0	-	0.0	1.4

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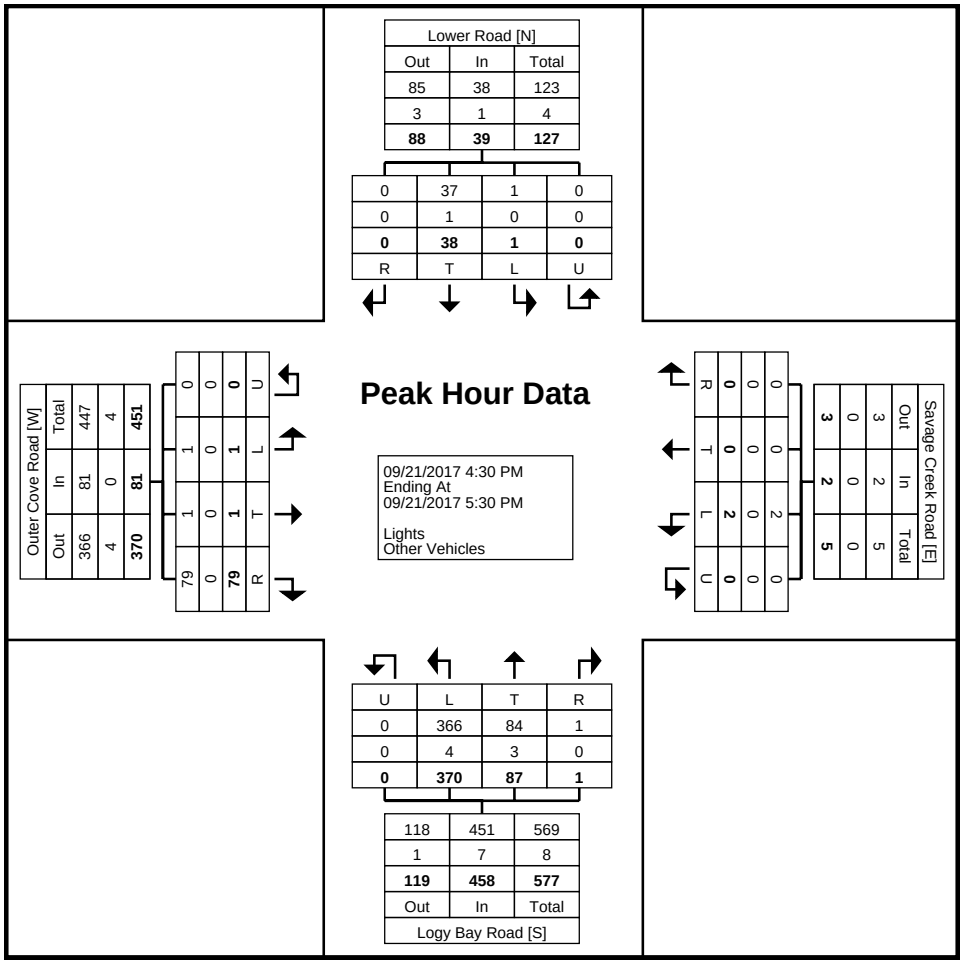
Count Name: Logy Bay Road & Outer Cove Road & Lower Road
Site Code:
Start Date: 09/21/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Logy Bay Road & Snow's Lane
Site Code:
Start Date: 09/26/2017

Turning Movement Data

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Snow's Lane Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
7:00 AM	8	24	0	32	10	3	0	13	5	7	0	12	57
7:15 AM	6	43	0	49	18	5	0	23	8	7	0	15	87
7:30 AM	13	70	0	83	28	9	1	38	32	9	0	41	162
7:45 AM	22	84	0	106	30	13	0	43	45	6	0	51	200
Hourly Total	49	221	0	270	86	30	1	117	90	29	0	119	506
8:00 AM	28	113	0	141	26	15	0	41	48	7	0	55	237
8:15 AM	20	83	0	103	12	16	0	28	50	12	0	62	193
8:30 AM	21	69	0	90	23	13	0	36	42	8	0	50	176
8:45 AM	9	43	0	52	24	15	0	39	35	9	0	44	135
Hourly Total	78	308	0	386	85	59	0	144	175	36	0	211	741
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	17	28	0	45	20	19	0	39	25	11	0	36	120
11:15 AM	22	26	0	48	16	18	0	34	18	16	0	34	116
11:30 AM	19	31	0	50	19	17	1	37	28	11	0	39	126
11:45 AM	14	31	0	45	28	27	0	55	33	19	0	52	152
Hourly Total	72	116	0	188	83	81	1	165	104	57	0	161	514
12:00 PM	25	26	0	51	45	40	0	85	20	22	0	42	178
12:15 PM	20	29	0	49	30	24	0	54	41	16	0	57	160
12:30 PM	15	38	0	53	28	22	0	50	35	20	0	55	158
12:45 PM	24	35	0	59	26	33	0	59	35	16	0	51	169
Hourly Total	84	128	0	212	129	119	0	248	131	74	0	205	665
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	18	31	0	49	52	29	0	81	38	23	0	61	191
4:15 PM	17	31	0	48	76	42	0	118	26	18	0	44	210
4:30 PM	15	38	0	53	91	41	0	132	28	25	0	53	238
4:45 PM	20	64	0	84	93	48	0	141	25	29	0	54	279
Hourly Total	70	164	0	234	312	160	0	472	117	95	0	212	918
5:00 PM	13	26	0	39	101	60	0	161	34	25	0	59	259
5:15 PM	11	38	0	49	82	54	0	136	27	24	0	51	236
5:30 PM	13	50	0	63	49	42	0	91	20	21	0	41	195
5:45 PM	15	30	0	45	43	28	0	71	29	22	0	51	167
Hourly Total	52	144	0	196	275	184	0	459	110	92	0	202	857
Grand Total	405	1081	0	1486	970	633	2	1605	727	383	0	1110	4201
Approach %	27.3	72.7	0.0	-	60.4	39.4	0.1	-	65.5	34.5	0.0	-	-
Total %	9.6	25.7	0.0	35.4	23.1	15.1	0.0	38.2	17.3	9.1	0.0	26.4	-
Lights	400	1044	0	1444	935	620	1	1556	707	376	0	1083	4083
% Lights	98.8	96.6	-	97.2	96.4	97.9	50.0	96.9	97.2	98.2	-	97.6	97.2
Other Vehicles	5	37	0	42	35	13	1	49	20	7	0	27	118

% Other Vehicles	1.2	3.4	-	2.8	3.6	2.1	50.0	3.1	2.8	1.8	-	2.4	2.8

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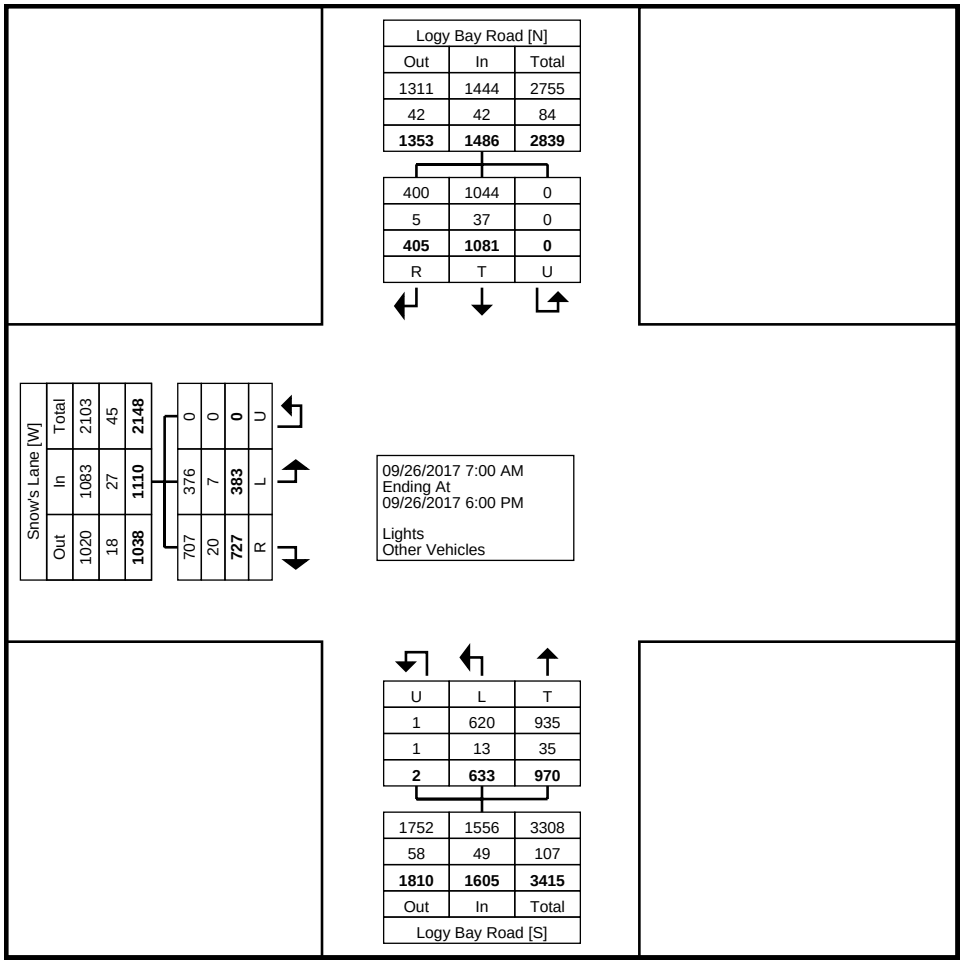
Count Name: Logy Bay Road & Snow's Lane
Site Code:
Start Date: 09/26/2017



Turning Movement Data Plot

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Count Name: Logy Bay Road & Snow's Lane
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Snow's Lane Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
7:45 AM	22	84	0	106	30	13	0	43	45	6	0	51	200
8:00 AM	28	113	0	141	26	15	0	41	48	7	0	55	237
8:15 AM	20	83	0	103	12	16	0	28	50	12	0	62	193
8:30 AM	21	69	0	90	23	13	0	36	42	8	0	50	176
Total	91	349	0	440	91	57	0	148	185	33	0	218	806
Approach %	20.7	79.3	0.0	-	61.5	38.5	0.0	-	84.9	15.1	0.0	-	-
Total %	11.3	43.3	0.0	54.6	11.3	7.1	0.0	18.4	23.0	4.1	0.0	27.0	-
PHF	0.813	0.772	0.000	0.780	0.758	0.891	0.000	0.860	0.925	0.688	0.000	0.879	0.850
Lights	89	339	0	428	80	56	0	136	180	32	0	212	776
% Lights	97.8	97.1	-	97.3	87.9	98.2	-	91.9	97.3	97.0	-	97.2	96.3
Other Vehicles	2	10	0	12	11	1	0	12	5	1	0	6	30
% Other Vehicles	2.2	2.9	-	2.7	12.1	1.8	-	8.1	2.7	3.0	-	2.8	3.7

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Site Code:
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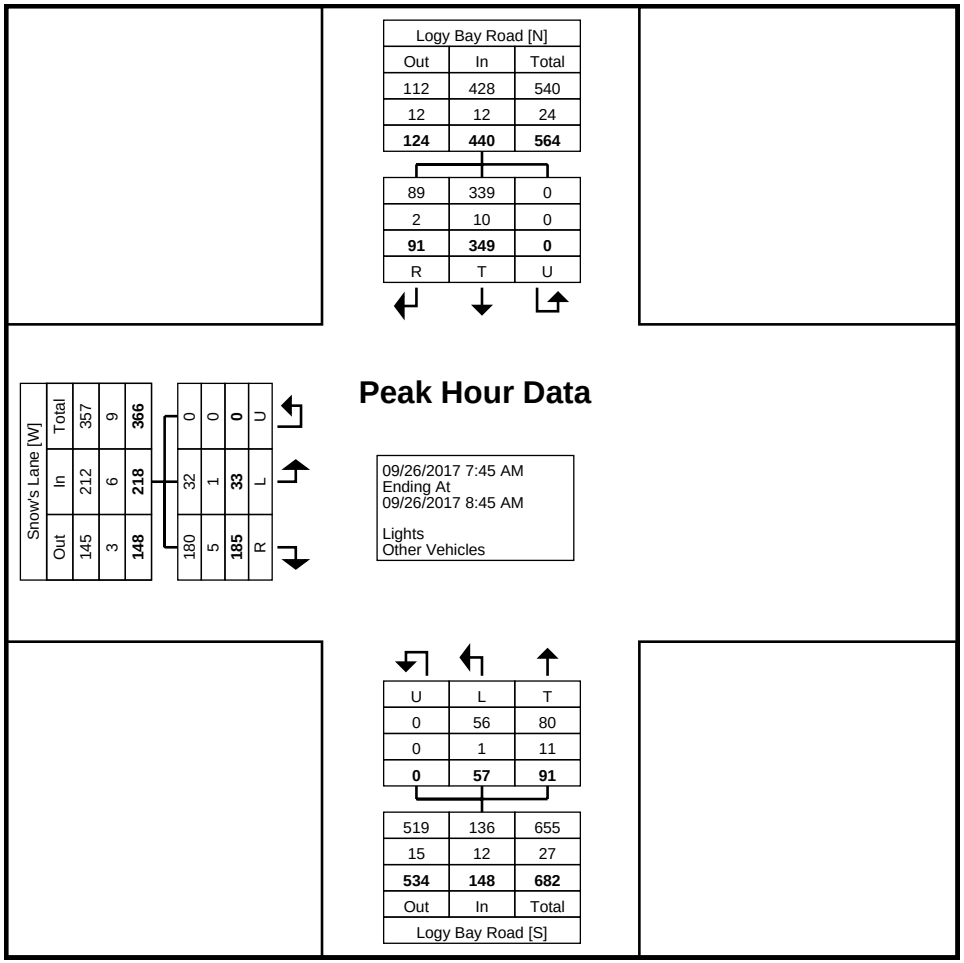

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Count Name: Logy Bay Road & Snow's Lane
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Snow's Lane Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
12:00 PM	25	26	0	51	45	40	0	85	20	22	0	42	178
12:15 PM	20	29	0	49	30	24	0	54	41	16	0	57	160
12:30 PM	15	38	0	53	28	22	0	50	35	20	0	55	158
12:45 PM	24	35	0	59	26	33	0	59	35	16	0	51	169
Total	84	128	0	212	129	119	0	248	131	74	0	205	665
Approach %	39.6	60.4	0.0	-	52.0	48.0	0.0	-	63.9	36.1	0.0	-	-
Total %	12.6	19.2	0.0	31.9	19.4	17.9	0.0	37.3	19.7	11.1	0.0	30.8	-
PHF	0.840	0.842	0.000	0.898	0.717	0.744	0.000	0.729	0.799	0.841	0.000	0.899	0.934
Lights	82	126	0	208	123	115	0	238	124	71	0	195	641
% Lights	97.6	98.4	-	98.1	95.3	96.6	-	96.0	94.7	95.9	-	95.1	96.4
Other Vehicles	2	2	0	4	6	4	0	10	7	3	0	10	24
% Other Vehicles	2.4	1.6	-	1.9	4.7	3.4	-	4.0	5.3	4.1	-	4.9	3.6

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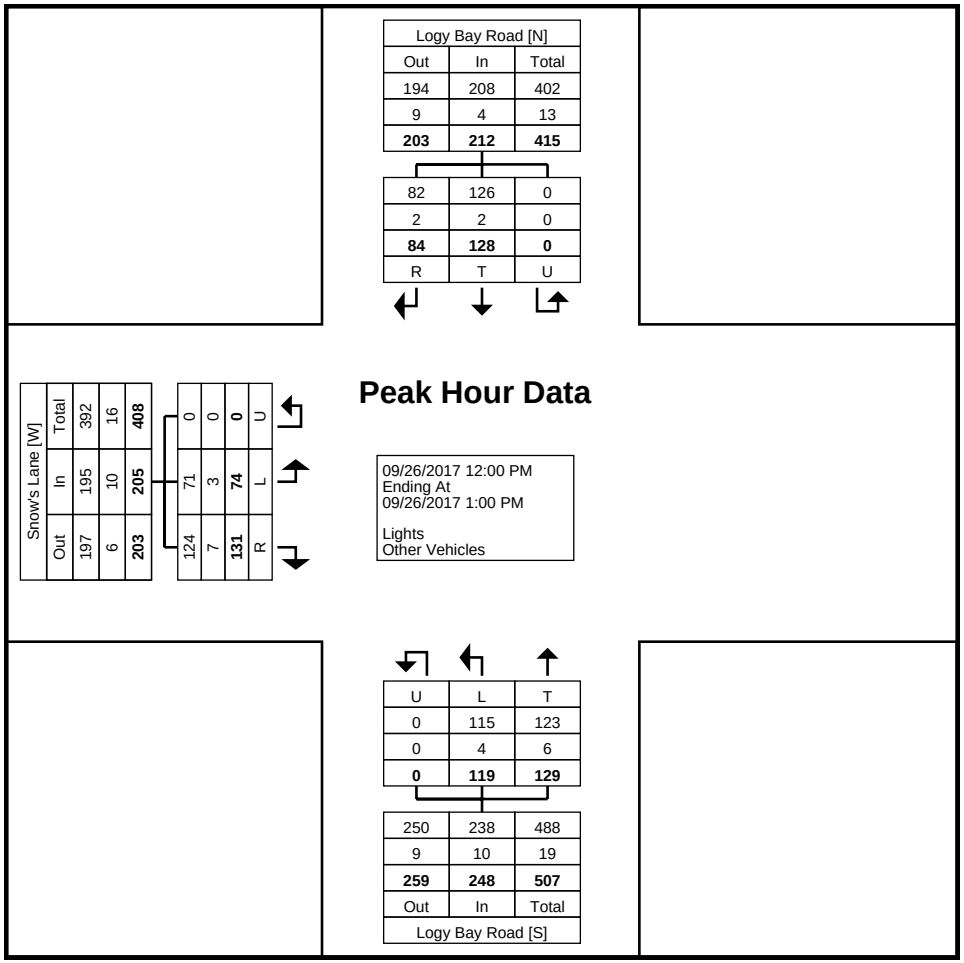

Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Logy Bay Road & Snow's Lane
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Logy Bay Road Southbound				Logy Bay Road Northbound				Snow's Lane Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
4:30 PM	15	38	0	53	91	41	0	132	28	25	0	53	238
4:45 PM	20	64	0	84	93	48	0	141	25	29	0	54	279
5:00 PM	13	26	0	39	101	60	0	161	34	25	0	59	259
5:15 PM	11	38	0	49	82	54	0	136	27	24	0	51	236
Total	59	166	0	225	367	203	0	570	114	103	0	217	1012
Approach %	26.2	73.8	0.0	-	64.4	35.6	0.0	-	52.5	47.5	0.0	-	-
Total %	5.8	16.4	0.0	22.2	36.3	20.1	0.0	56.3	11.3	10.2	0.0	21.4	-
PHF	0.738	0.648	0.000	0.670	0.908	0.846	0.000	0.885	0.838	0.888	0.000	0.919	0.907
Lights	59	158	0	217	365	203	0	568	114	103	0	217	1002
% Lights	100.0	95.2	-	96.4	99.5	100.0	-	99.6	100.0	100.0	-	100.0	99.0
Other Vehicles	0	8	0	8	2	0	0	2	0	0	0	0	10
% Other Vehicles	0.0	4.8	-	3.6	0.5	0.0	-	0.4	0.0	0.0	-	0.0	1.0

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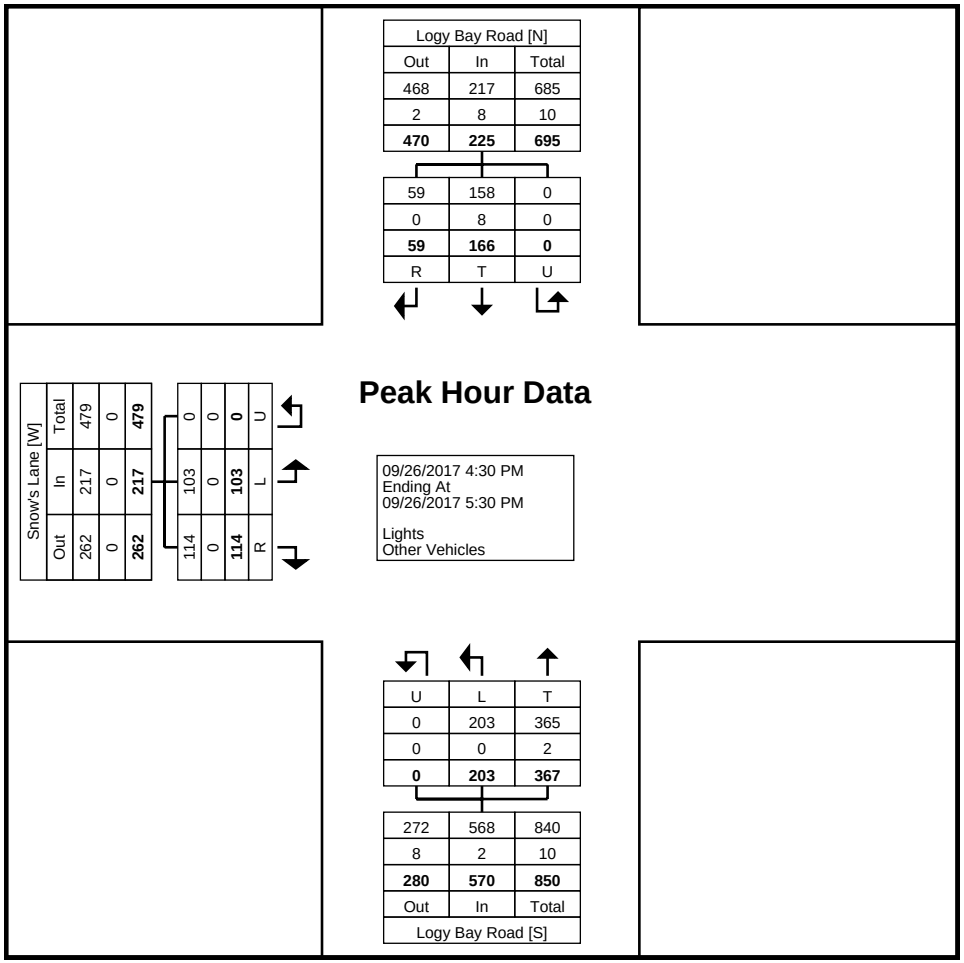
Count Name: Logy Bay Road & Snow's Lane
Site Code:
Start Date: 09/26/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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8 Rowan Street, Suite 306
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709.579.6435 fallaire@harboursideengineering.ca

Count Name: Marine Drive & Cadigan's Road
Site Code:
Start Date: 09/26/2017

Turning Movement Data

Start Time	Marine Drive Southbound				Marine Drive Northbound				Cadigan's Road Eastbound				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
7:00 AM	8	0	0	8	2	3	0	5	0	3	0	3	16
7:15 AM	13	5	0	18	3	0	0	3	1	7	0	8	29
7:30 AM	15	4	0	19	1	4	0	5	3	10	0	13	37
7:45 AM	20	3	0	23	2	7	0	9	1	7	0	8	40
Hourly Total	56	12	0	68	8	14	0	22	5	27	0	32	122
8:00 AM	22	10	0	32	1	2	0	3	2	11	0	13	48
8:15 AM	10	4	0	14	2	4	0	6	4	7	0	11	31
8:30 AM	10	4	0	14	0	4	0	4	6	7	0	13	31
8:45 AM	13	4	0	17	2	2	0	4	2	8	0	10	31
Hourly Total	55	22	0	77	5	12	0	17	14	33	0	47	141
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	7	2	0	9	6	1	0	7	1	9	0	10	26
11:15 AM	10	4	0	14	4	1	0	5	0	9	0	9	28
11:30 AM	14	4	0	18	4	3	0	7	1	8	0	9	34
11:45 AM	14	1	0	15	3	4	0	7	3	11	1	15	37
Hourly Total	45	11	0	56	17	9	0	26	5	37	1	43	125
12:00 PM	14	4	0	18	8	3	0	11	4	13	0	17	46
12:15 PM	11	4	0	15	3	0	0	3	3	16	0	19	37
12:30 PM	14	4	0	18	5	5	0	10	3	8	0	11	39
12:45 PM	17	5	0	22	6	4	0	10	4	14	0	18	50
Hourly Total	56	17	0	73	22	12	0	34	14	51	0	65	172
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	13	2	0	15	3	1	1	5	7	15	0	22	42
4:15 PM	16	2	0	18	7	6	0	13	2	12	0	14	45
4:30 PM	22	2	0	24	8	4	0	12	4	15	0	19	55
4:45 PM	20	4	0	24	7	4	0	11	6	16	0	22	57
Hourly Total	71	10	0	81	25	15	1	41	19	58	0	77	199
5:00 PM	13	3	0	16	6	6	0	12	9	17	0	26	54
5:15 PM	13	2	0	15	8	4	0	12	3	22	0	25	52
5:30 PM	10	2	0	12	2	4	0	6	0	11	0	11	29
5:45 PM	10	0	0	10	6	2	0	8	5	16	0	21	39
Hourly Total	46	7	0	53	22	16	0	38	17	66	0	83	174
Grand Total	329	79	0	408	99	78	1	178	74	272	1	347	933
Approach %	80.6	19.4	0.0	-	55.6	43.8	0.6	-	21.3	78.4	0.3	-	-
Total %	35.3	8.5	0.0	43.7	10.6	8.4	0.1	19.1	7.9	29.2	0.1	37.2	-
Lights	316	77	0	393	94	75	1	170	70	261	1	332	895
% Lights	96.0	97.5	-	96.3	94.9	96.2	100.0	95.5	94.6	96.0	100.0	95.7	95.9
Other Vehicles	13	2	0	15	5	3	0	8	4	11	0	15	38

% Other Vehicles	4.0	2.5	-	3.7	5.1	3.8	0.0	4.5	5.4	4.0	0.0	4.3	4.1

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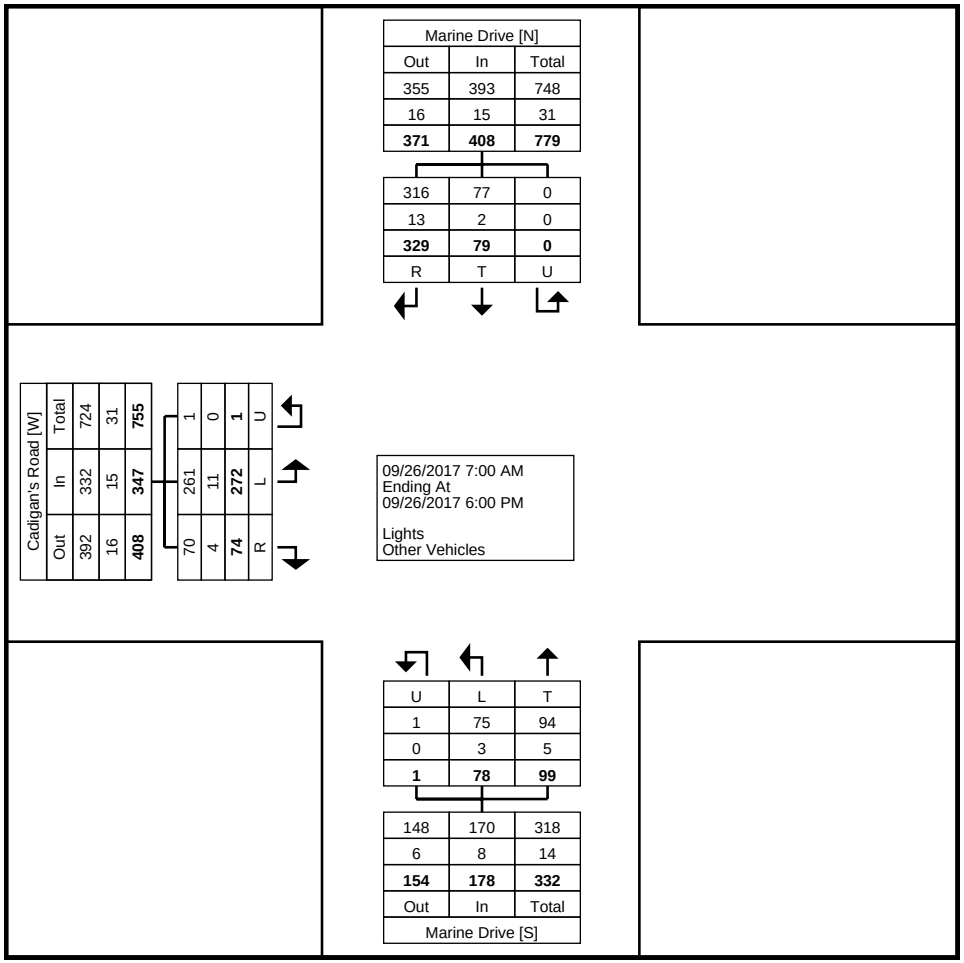
Count Name: Marine Drive & Cadigan's Road
Site Code:
Start Date: 09/26/2017



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Count Name: Marine Drive & Cadigan's Road
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Marine Drive Southbound				Marine Drive Northbound				Cadigan's Road Eastbound				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
7:30 AM	15	4	0	19	1	4	0	5	3	10	0	13	37
7:45 AM	20	3	0	23	2	7	0	9	1	7	0	8	40
8:00 AM	22	10	0	32	1	2	0	3	2	11	0	13	48
8:15 AM	10	4	0	14	2	4	0	6	4	7	0	11	31
Total	67	21	0	88	6	17	0	23	10	35	0	45	156
Approach %	76.1	23.9	0.0	-	26.1	73.9	0.0	-	22.2	77.8	0.0	-	-
Total %	42.9	13.5	0.0	56.4	3.8	10.9	0.0	14.7	6.4	22.4	0.0	28.8	-
PHF	0.761	0.525	0.000	0.688	0.750	0.607	0.000	0.639	0.625	0.795	0.000	0.865	0.813
Lights	64	20	0	84	6	15	0	21	8	29	0	37	142
% Lights	95.5	95.2	-	95.5	100.0	88.2	-	91.3	80.0	82.9	-	82.2	91.0
Other Vehicles	3	1	0	4	0	2	0	2	2	6	0	8	14
% Other Vehicles	4.5	4.8	-	4.5	0.0	11.8	-	8.7	20.0	17.1	-	17.8	9.0

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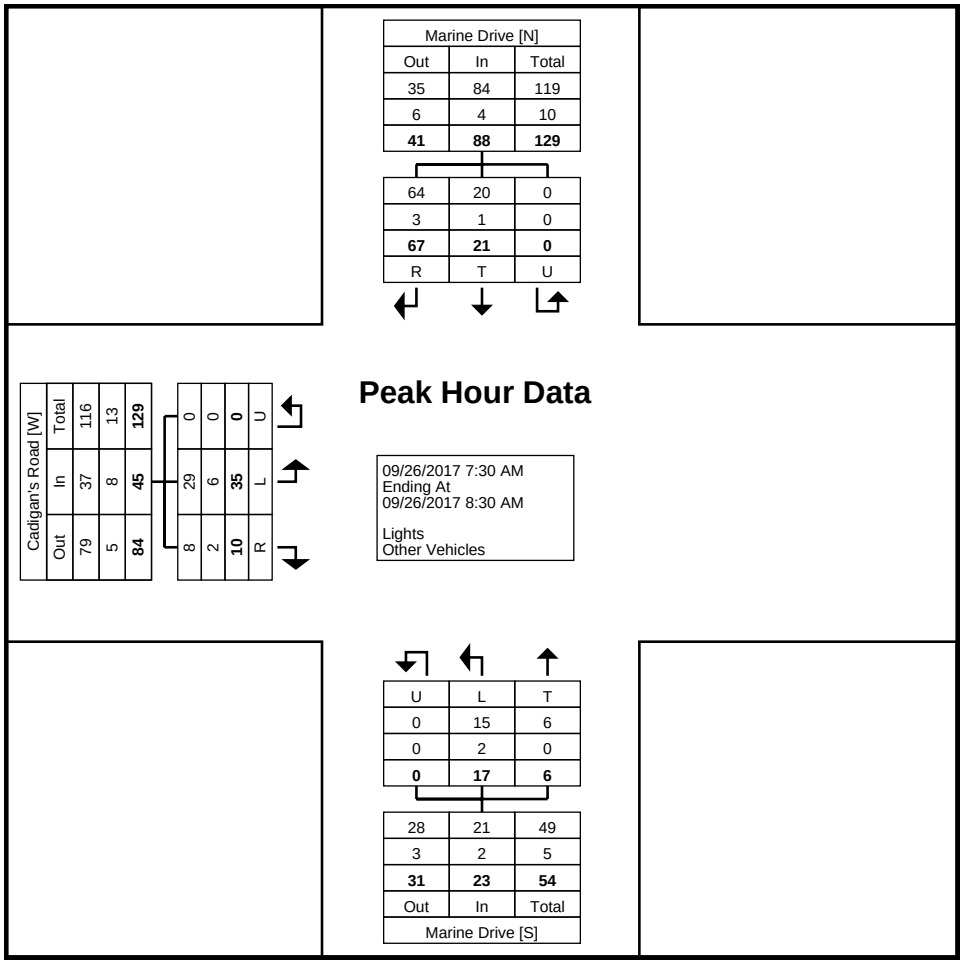
Start Date: 09/26/2017



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

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Count Name: Marine Drive & Cadigan's Road
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Marine Drive Southbound				Marine Drive Northbound				Cadigan's Road Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
12:00 PM	14	4	0	18	8	3	0	11	4	13	0	17	46
12:15 PM	11	4	0	15	3	0	0	3	3	16	0	19	37
12:30 PM	14	4	0	18	5	5	0	10	3	8	0	11	39
12:45 PM	17	5	0	22	6	4	0	10	4	14	0	18	50
Total	56	17	0	73	22	12	0	34	14	51	0	65	172
Approach %	76.7	23.3	0.0	-	64.7	35.3	0.0	-	21.5	78.5	0.0	-	-
Total %	32.6	9.9	0.0	42.4	12.8	7.0	0.0	19.8	8.1	29.7	0.0	37.8	-
PHF	0.824	0.850	0.000	0.830	0.688	0.600	0.000	0.773	0.875	0.797	0.000	0.855	0.860
Lights	52	17	0	69	20	11	0	31	12	50	0	62	162
% Lights	92.9	100.0	-	94.5	90.9	91.7	-	91.2	85.7	98.0	-	95.4	94.2
Other Vehicles	4	0	0	4	2	1	0	3	2	1	0	3	10
% Other Vehicles	7.1	0.0	-	5.5	9.1	8.3	-	8.8	14.3	2.0	-	4.6	5.8

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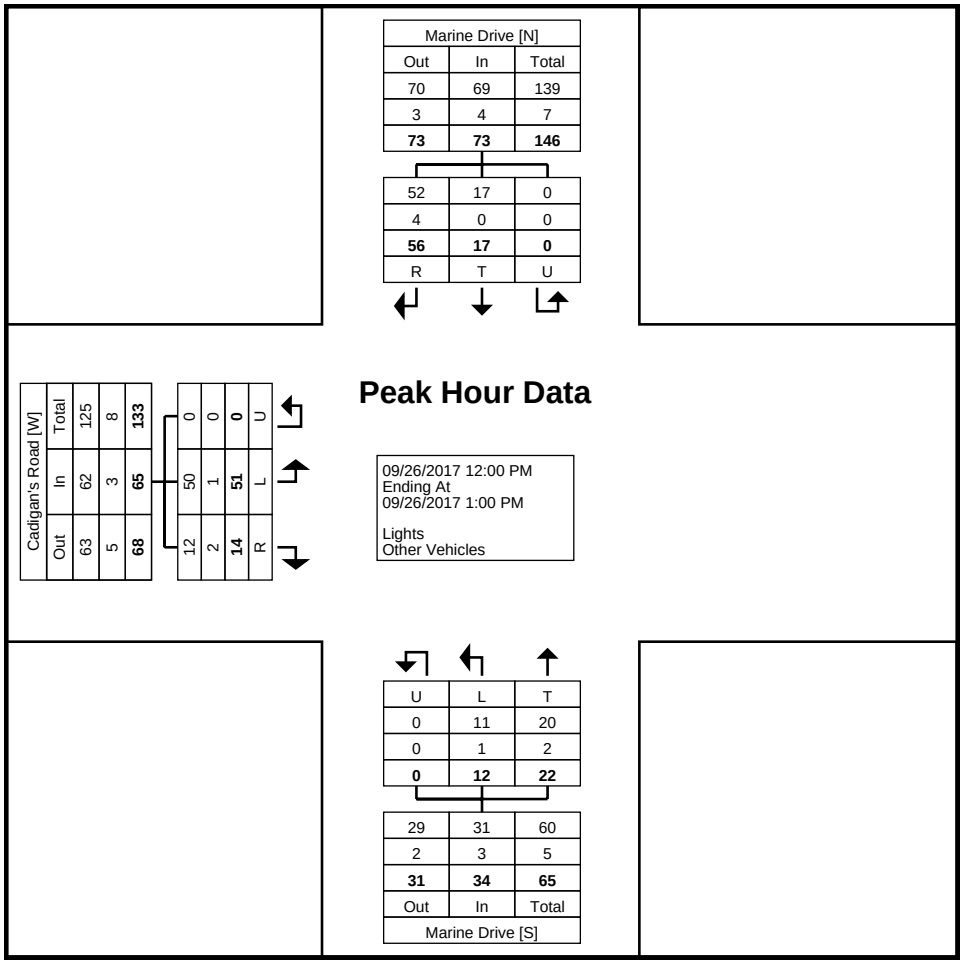

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Count Name: Marine Drive & Cadigan's Road
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Marine Drive Southbound				Marine Drive Northbound				Cadigan's Road Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
4:30 PM	22	2	0	24	8	4	0	12	4	15	0	19	55
4:45 PM	20	4	0	24	7	4	0	11	6	16	0	22	57
5:00 PM	13	3	0	16	6	6	0	12	9	17	0	26	54
5:15 PM	13	2	0	15	8	4	0	12	3	22	0	25	52
Total	68	11	0	79	29	18	0	47	22	70	0	92	218
Approach %	86.1	13.9	0.0	-	61.7	38.3	0.0	-	23.9	76.1	0.0	-	-
Total %	31.2	5.0	0.0	36.2	13.3	8.3	0.0	21.6	10.1	32.1	0.0	42.2	-
PHF	0.773	0.688	0.000	0.823	0.906	0.750	0.000	0.979	0.611	0.795	0.000	0.885	0.956
Lights	63	11	0	74	29	18	0	47	22	69	0	91	212
% Lights	92.6	100.0	-	93.7	100.0	100.0	-	100.0	100.0	98.6	-	98.9	97.2
Other Vehicles	5	0	0	5	0	0	0	0	0	1	0	1	6
% Other Vehicles	7.4	0.0	-	6.3	0.0	0.0	-	0.0	0.0	1.4	-	1.1	2.8

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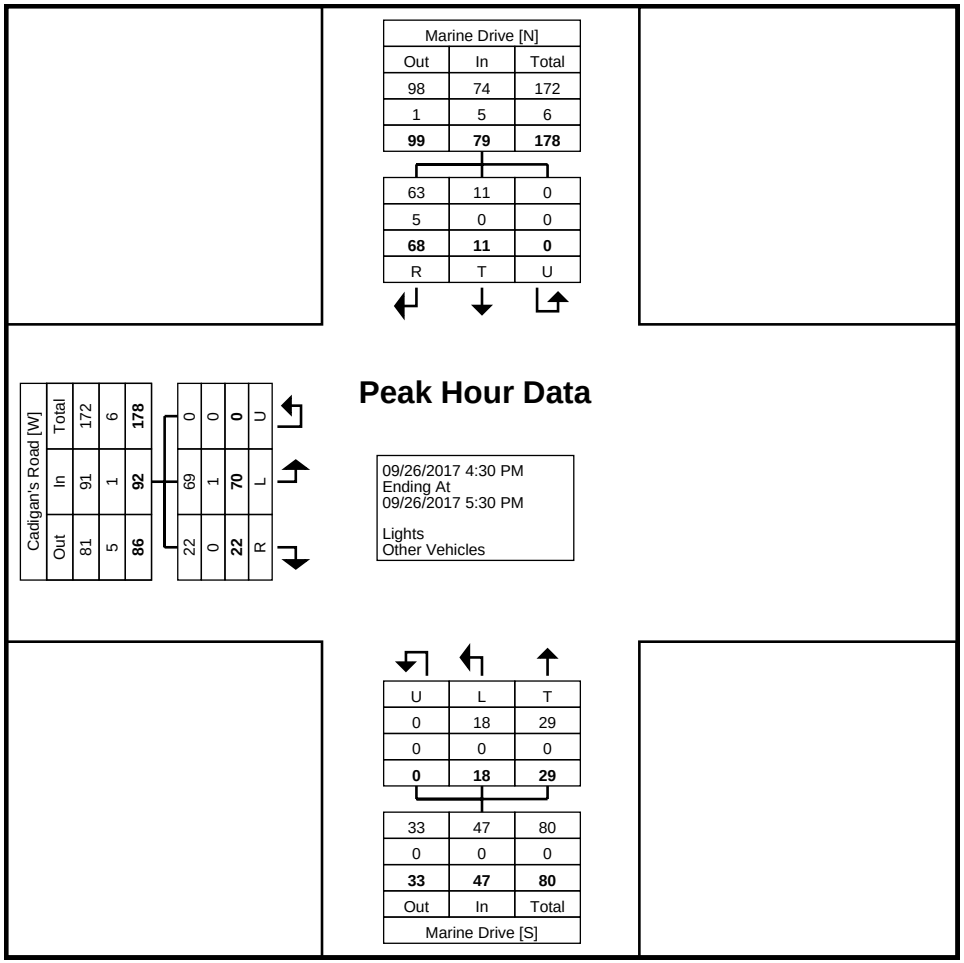

Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Marine Drive & Lower Road
Site Code:
Start Date: 09/19/2017

Turning Movement Data

Start Time	Marine Drive Westbound				Lower Road Northbound				Marine Drive Eastbound				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
7:00 AM	0	0	0	0	2	0	0	2	1	1	0	2	4
7:15 AM	2	0	0	2	2	1	0	3	1	5	0	6	11
7:30 AM	3	4	0	7	1	0	0	1	1	4	0	5	13
7:45 AM	0	4	0	4	3	0	0	3	2	5	0	7	14
Hourly Total	5	8	0	13	8	1	0	9	5	15	0	20	42
8:00 AM	3	1	0	4	3	1	0	4	8	3	0	11	19
8:15 AM	2	1	0	3	2	1	0	3	0	4	0	4	10
8:30 AM	6	1	0	7	1	1	0	2	2	9	0	11	20
8:45 AM	5	0	0	5	3	1	0	4	1	3	0	4	13
Hourly Total	16	3	0	19	9	4	0	13	11	19	0	30	62
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	2	1	0	3	0	2	0	2	0	2	0	2	7
11:15 AM	3	2	0	5	1	3	0	4	3	2	0	5	14
11:30 AM	1	5	0	6	2	4	0	6	2	6	0	8	20
11:45 AM	3	2	0	5	2	4	0	6	4	7	0	11	22
Hourly Total	9	10	0	19	5	13	0	18	9	17	0	26	63
12:00 PM	9	1	0	10	5	3	0	8	3	6	0	9	27
12:15 PM	2	2	0	4	0	2	1	3	2	8	0	10	17
12:30 PM	5	2	0	7	6	6	0	12	2	7	0	9	28
12:45 PM	3	1	0	4	5	0	0	5	4	3	0	7	16
Hourly Total	19	6	0	25	16	11	1	28	11	24	0	35	88
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	4	2	0	6	2	1	1	4	2	9	0	11	21
4:15 PM	1	3	0	4	4	5	1	10	3	4	0	7	21
4:30 PM	8	2	0	10	1	9	2	12	2	7	1	10	32
4:45 PM	8	1	0	9	7	6	1	14	1	5	0	6	29
Hourly Total	21	8	0	29	14	21	5	40	8	25	1	34	103
5:00 PM	7	1	0	8	3	4	0	7	0	4	0	4	19
5:15 PM	6	5	0	11	4	5	1	10	2	5	0	7	28
5:30 PM	6	5	0	11	2	6	0	8	1	1	0	2	21
5:45 PM	7	1	0	8	2	0	1	3	1	2	0	3	14
Hourly Total	26	12	0	38	11	15	2	28	4	12	0	16	82
Grand Total	96	47	0	143	63	65	8	136	48	112	1	161	440
Approach %	67.1	32.9	0.0	-	46.3	47.8	5.9	-	29.8	69.6	0.6	-	-
Total %	21.8	10.7	0.0	32.5	14.3	14.8	1.8	30.9	10.9	25.5	0.2	36.6	-
Lights	94	45	0	139	60	64	8	132	48	111	1	160	431
% Lights	97.9	95.7	-	97.2	95.2	98.5	100.0	97.1	100.0	99.1	100.0	99.4	98.0
Other Vehicles	2	2	0	4	3	1	0	4	0	1	0	1	9

% Other Vehicles	2.1	4.3	-	2.8	4.8	1.5	0.0	2.9	0.0	0.9	0.0	0.6	2.0

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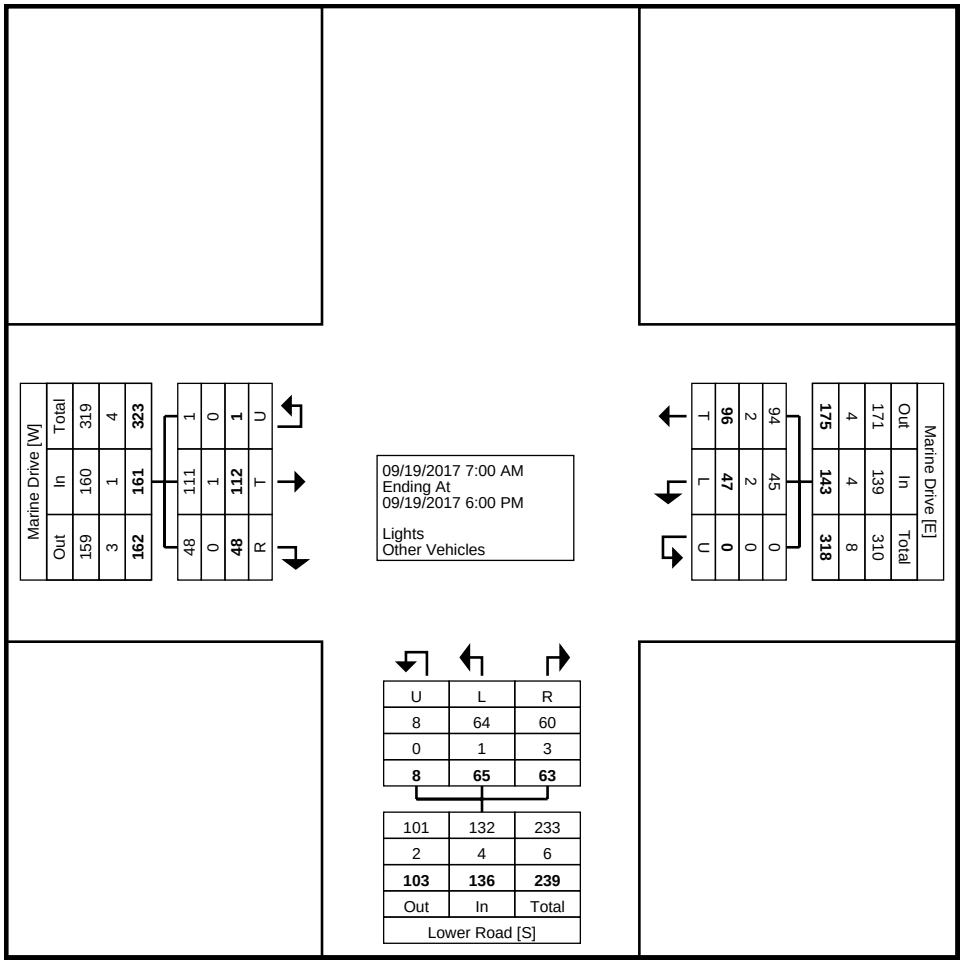
Count Name: Marine Drive & Lower Road
Site Code:
Start Date: 09/19/2017



Turning Movement Data Plot

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Count Name: Marine Drive & Lower Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Marine Drive Westbound				Lower Road Northbound				Marine Drive Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
7:45 AM	0	4	0	4	3	0	0	3	2	5	0	7	14
8:00 AM	3	1	0	4	3	1	0	4	8	3	0	11	19
8:15 AM	2	1	0	3	2	1	0	3	0	4	0	4	10
8:30 AM	6	1	0	7	1	1	0	2	2	9	0	11	20
Total	11	7	0	18	9	3	0	12	12	21	0	33	63
Approach %	61.1	38.9	0.0	-	75.0	25.0	0.0	-	36.4	63.6	0.0	-	-
Total %	17.5	11.1	0.0	28.6	14.3	4.8	0.0	19.0	19.0	33.3	0.0	52.4	-
PHF	0.458	0.438	0.000	0.643	0.750	0.750	0.000	0.750	0.375	0.583	0.000	0.750	0.788
Lights	11	7	0	18	8	3	0	11	12	21	0	33	62
% Lights	100.0	100.0	-	100.0	88.9	100.0	-	91.7	100.0	100.0	-	100.0	98.4
Other Vehicles	0	0	0	0	1	0	0	1	0	0	0	0	1
% Other Vehicles	0.0	0.0	-	0.0	11.1	0.0	-	8.3	0.0	0.0	-	0.0	1.6

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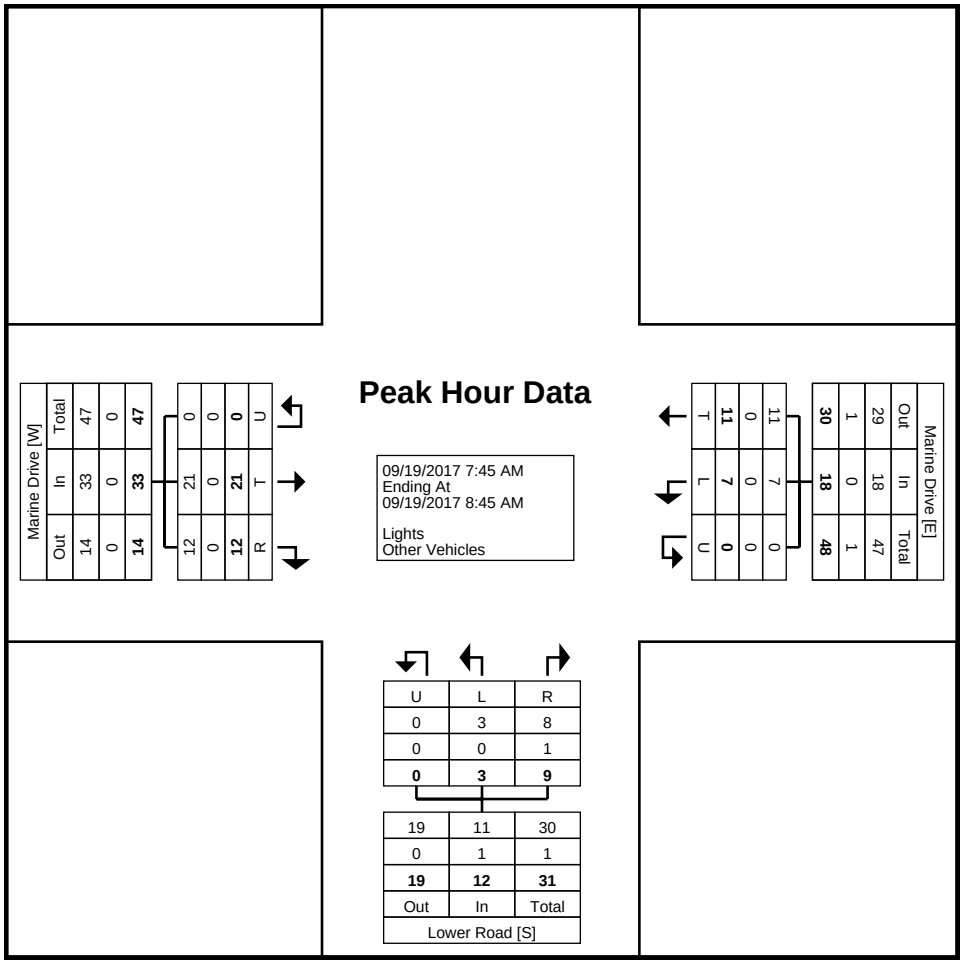

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Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Marine Drive Westbound				Lower Road Northbound				Marine Drive Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
11:45 AM	3	2	0	5	2	4	0	6	4	7	0	11	22
12:00 PM	9	1	0	10	5	3	0	8	3	6	0	9	27
12:15 PM	2	2	0	4	0	2	1	3	2	8	0	10	17
12:30 PM	5	2	0	7	6	6	0	12	2	7	0	9	28
Total	19	7	0	26	13	15	1	29	11	28	0	39	94
Approach %	73.1	26.9	0.0	-	44.8	51.7	3.4	-	28.2	71.8	0.0	-	-
Total %	20.2	7.4	0.0	27.7	13.8	16.0	1.1	30.9	11.7	29.8	0.0	41.5	-
PHF	0.528	0.875	0.000	0.650	0.542	0.625	0.250	0.604	0.688	0.875	0.000	0.886	0.839
Lights	18	7	0	25	13	15	1	29	11	27	0	38	92
% Lights	94.7	100.0	-	96.2	100.0	100.0	100.0	100.0	100.0	96.4	-	97.4	97.9
Other Vehicles	1	0	0	1	0	0	0	0	0	1	0	1	2
% Other Vehicles	5.3	0.0	-	3.8	0.0	0.0	0.0	0.0	0.0	3.6	-	2.6	2.1

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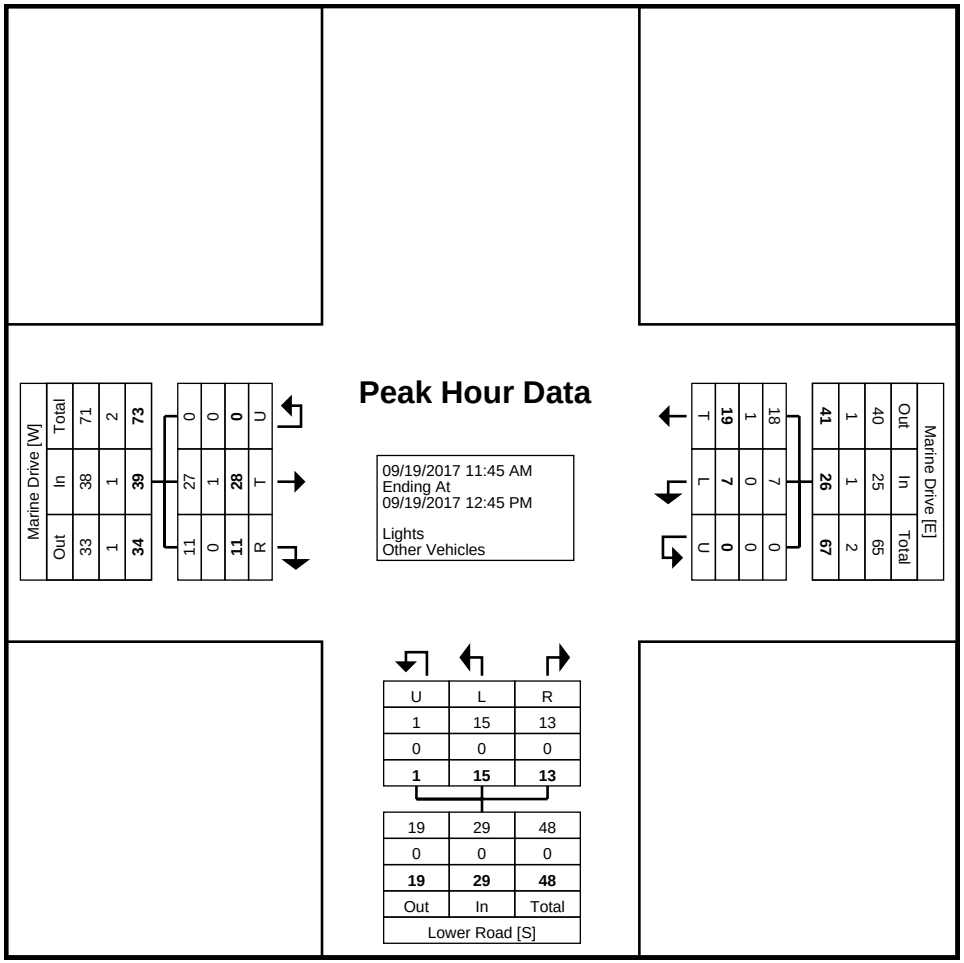

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Count Name: Marine Drive & Lower Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Marine Drive Westbound				Lower Road Northbound				Marine Drive Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
4:30 PM	8	2	0	10	1	9	2	12	2	7	1	10	32
4:45 PM	8	1	0	9	7	6	1	14	1	5	0	6	29
5:00 PM	7	1	0	8	3	4	0	7	0	4	0	4	19
5:15 PM	6	5	0	11	4	5	1	10	2	5	0	7	28
Total	29	9	0	38	15	24	4	43	5	21	1	27	108
Approach %	76.3	23.7	0.0	-	34.9	55.8	9.3	-	18.5	77.8	3.7	-	-
Total %	26.9	8.3	0.0	35.2	13.9	22.2	3.7	39.8	4.6	19.4	0.9	25.0	-
PHF	0.906	0.450	0.000	0.864	0.536	0.667	0.500	0.768	0.625	0.750	0.250	0.675	0.844
Lights	28	9	0	37	15	24	4	43	5	21	1	27	107
% Lights	96.6	100.0	-	97.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	99.1
Other Vehicles	1	0	0	1	0	0	0	0	0	0	0	0	1
% Other Vehicles	3.4	0.0	-	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9

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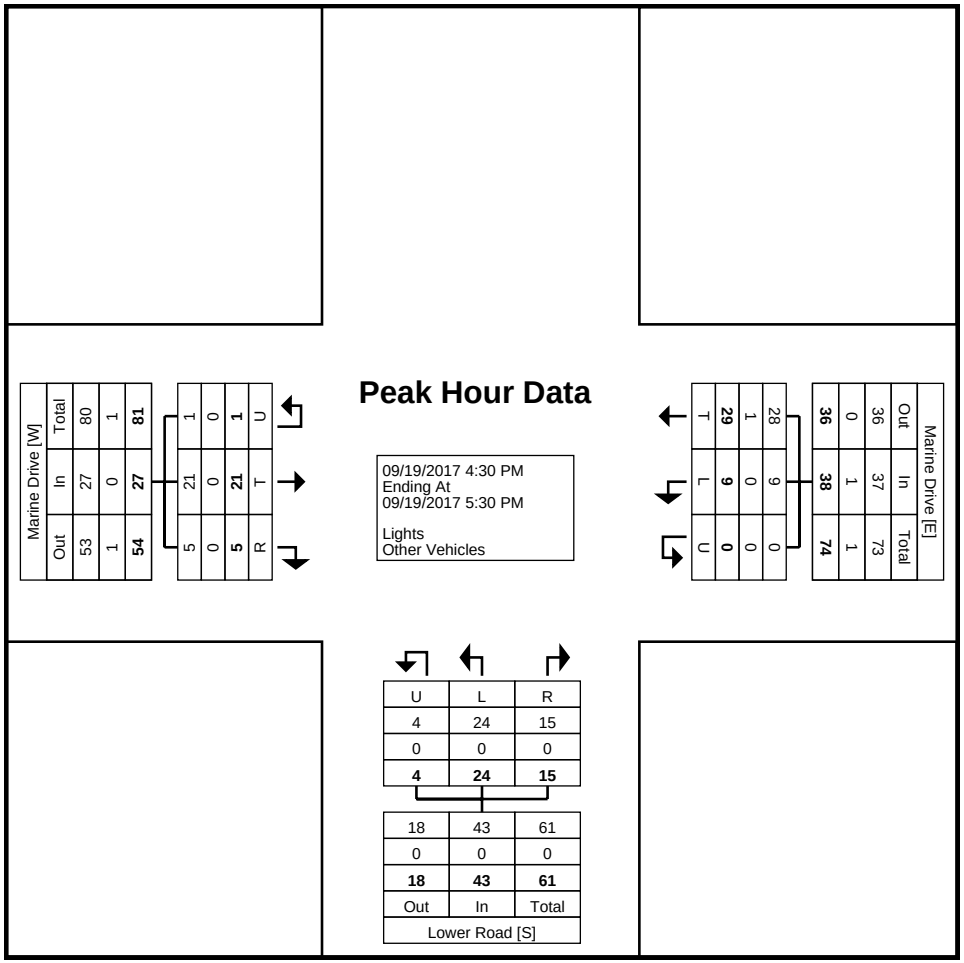

Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Marine Drive & Middle Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Data

Start Time	Marine Drive Southbound				Marine Drive Westbound				Middle Cove Road Eastbound				Int. Total
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	
7:00 AM	0	9	0	9	1	2	0	3	1	0	0	1	13
7:15 AM	1	17	0	18	4	5	0	9	7	0	0	7	34
7:30 AM	2	25	0	27	4	3	0	7	14	0	0	14	48
7:45 AM	0	28	0	28	1	1	0	2	11	2	0	13	43
Hourly Total	3	79	0	82	10	11	0	21	33	2	0	35	138
8:00 AM	3	32	0	35	4	5	0	9	16	0	0	16	60
8:15 AM	6	26	0	32	8	5	0	13	15	1	0	16	61
8:30 AM	3	26	0	29	8	6	0	14	26	0	0	26	69
8:45 AM	3	16	0	19	2	4	0	6	15	1	0	16	41
Hourly Total	15	100	0	115	22	20	0	42	72	2	0	74	231
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	1	2	0	3	9	7	0	16	7	0	0	7	26
11:15 AM	1	4	0	5	7	7	0	14	5	2	0	7	26
11:30 AM	1	5	0	6	12	7	0	19	9	1	0	10	35
11:45 AM	3	13	0	16	10	10	0	20	8	0	0	8	44
Hourly Total	6	24	0	30	38	31	0	69	29	3	0	32	131
12:00 PM	1	6	0	7	9	12	0	21	6	3	0	9	37
12:15 PM	5	8	0	13	11	11	0	22	20	1	0	21	56
12:30 PM	4	11	0	15	10	7	0	17	13	1	0	14	46
12:45 PM	1	5	0	6	10	12	0	22	10	1	0	11	39
Hourly Total	11	30	0	41	40	42	0	82	49	6	0	55	178
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	10	0	11	19	10	0	29	9	0	0	9	49
4:15 PM	1	4	0	5	18	7	0	25	8	2	0	10	40
4:30 PM	1	7	0	8	38	13	0	51	18	0	0	18	77
4:45 PM	3	12	0	15	32	19	0	51	10	2	0	12	78
Hourly Total	6	33	0	39	107	49	0	156	45	4	0	49	244
5:00 PM	2	11	0	13	41	17	0	58	6	1	0	7	78
5:15 PM	2	3	0	5	30	17	0	47	10	0	0	10	62
5:30 PM	1	5	0	6	15	13	0	28	7	1	0	8	42
5:45 PM	0	9	0	9	16	12	0	28	1	1	0	2	39
Hourly Total	5	28	0	33	102	59	0	161	24	3	0	27	221
Grand Total	46	294	0	340	319	212	0	531	252	20	0	272	1143
Approach %	13.5	86.5	0.0	-	60.1	39.9	0.0	-	92.6	7.4	0.0	-	-
Total %	4.0	25.7	0.0	29.7	27.9	18.5	0.0	46.5	22.0	1.7	0.0	23.8	-
Lights	42	293	0	335	315	209	0	524	246	19	0	265	1124
% Lights	91.3	99.7	-	98.5	98.7	98.6	-	98.7	97.6	95.0	-	97.4	98.3
Other Vehicles	4	1	0	5	4	3	0	7	6	1	0	7	19

% Other Vehicles	8.7	0.3	-	1.5	1.3	1.4	-	1.3	2.4	5.0	-	2.6	1.7

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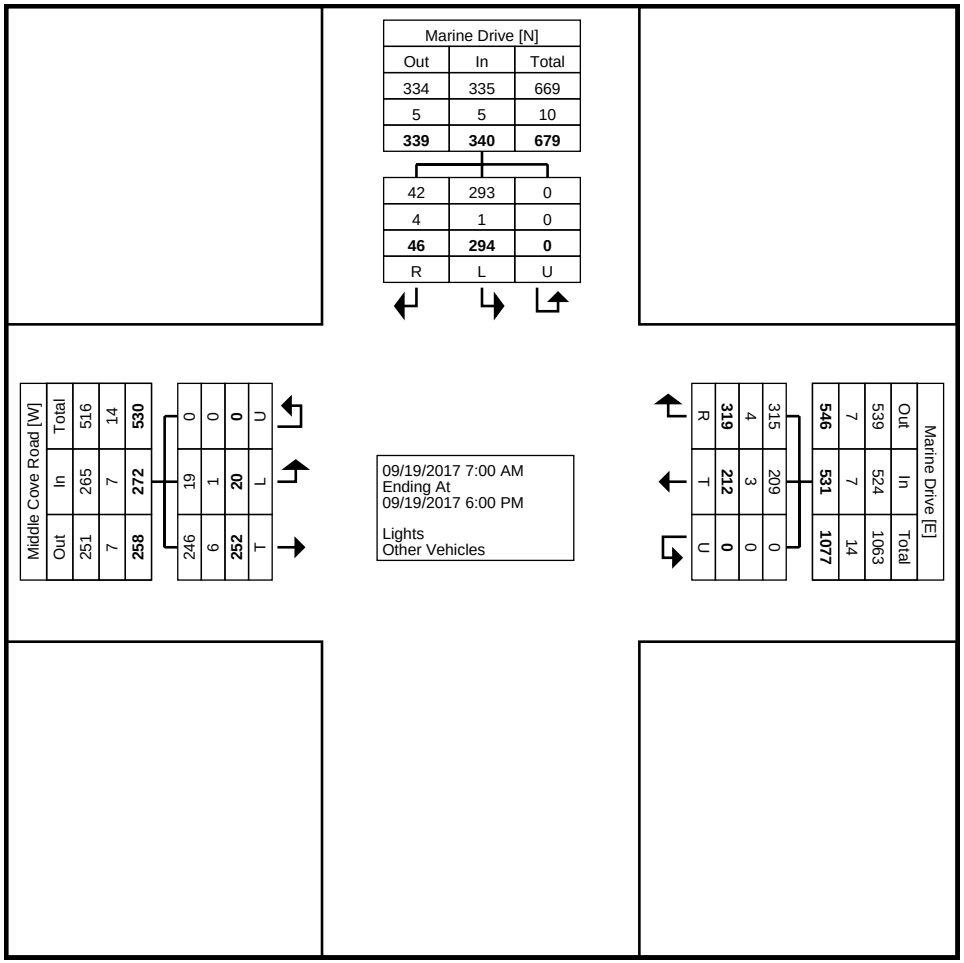
Count Name: Marine Drive & Middle Cove Road
Site Code:
Start Date: 09/19/2017



Turning Movement Data Plot

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Count Name: Marine Drive & Middle Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Marine Drive Southbound				Marine Drive Westbound				Middle Cove Road Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
7:45 AM	0	28	0	28	1	1	0	2	11	2	0	13	43
8:00 AM	3	32	0	35	4	5	0	9	16	0	0	16	60
8:15 AM	6	26	0	32	8	5	0	13	15	1	0	16	61
8:30 AM	3	26	0	29	8	6	0	14	26	0	0	26	69
Total	12	112	0	124	21	17	0	38	68	3	0	71	233
Approach %	9.7	90.3	0.0	-	55.3	44.7	0.0	-	95.8	4.2	0.0	-	-
Total %	5.2	48.1	0.0	53.2	9.0	7.3	0.0	16.3	29.2	1.3	0.0	30.5	-
PHF	0.500	0.875	0.000	0.886	0.656	0.708	0.000	0.679	0.654	0.375	0.000	0.683	0.844
Lights	10	112	0	122	21	16	0	37	67	2	0	69	228
% Lights	83.3	100.0	-	98.4	100.0	94.1	-	97.4	98.5	66.7	-	97.2	97.9
Other Vehicles	2	0	0	2	0	1	0	1	1	1	0	2	5
% Other Vehicles	16.7	0.0	-	1.6	0.0	5.9	-	2.6	1.5	33.3	-	2.8	2.1

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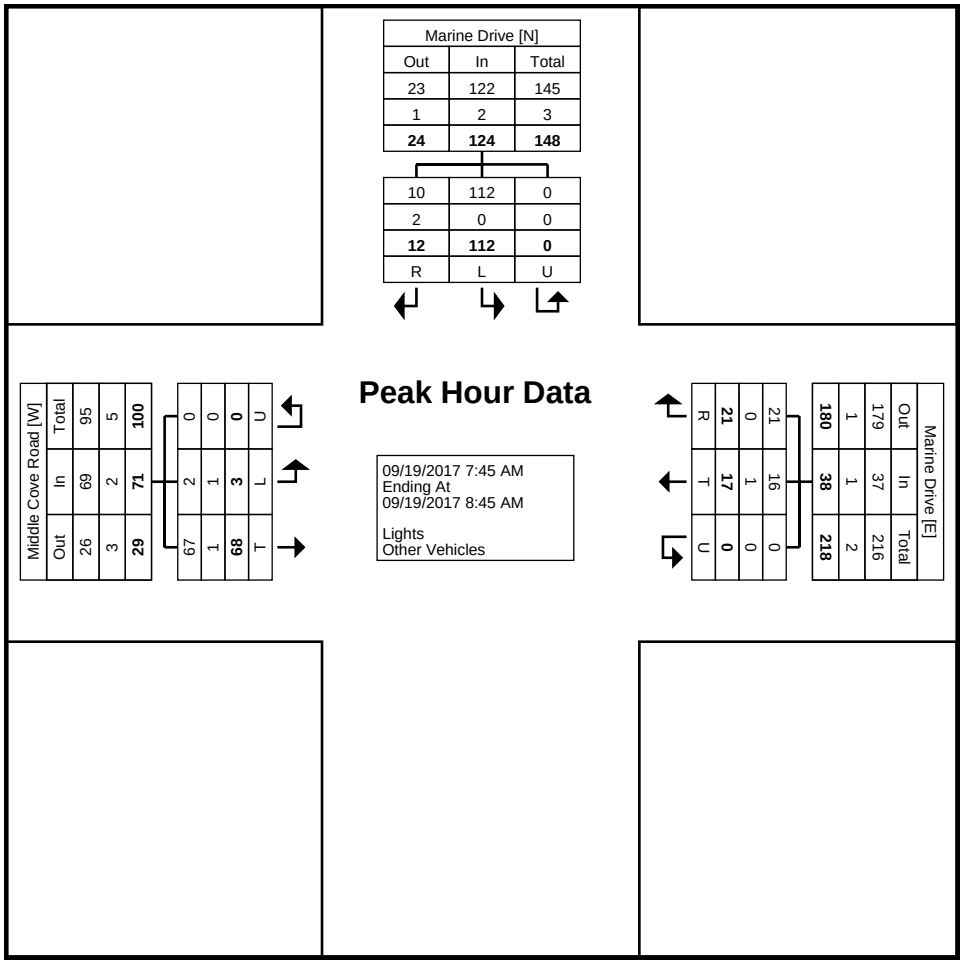

Turning Movement Peak Hour Data Plot (7:45 AM)

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Count Name: Marine Drive & Middle Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (11:45 AM)

Start Time	Marine Drive Southbound				Marine Drive Westbound				Middle Cove Road Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
11:45 AM	3	13	0	16	10	10	0	20	8	0	0	8	44
12:00 PM	1	6	0	7	9	12	0	21	6	3	0	9	37
12:15 PM	5	8	0	13	11	11	0	22	20	1	0	21	56
12:30 PM	4	11	0	15	10	7	0	17	13	1	0	14	46
Total	13	38	0	51	40	40	0	80	47	5	0	52	183
Approach %	25.5	74.5	0.0	-	50.0	50.0	0.0	-	90.4	9.6	0.0	-	-
Total %	7.1	20.8	0.0	27.9	21.9	21.9	0.0	43.7	25.7	2.7	0.0	28.4	-
PHF	0.650	0.731	0.000	0.797	0.909	0.833	0.000	0.909	0.588	0.417	0.000	0.619	0.817
Lights	12	38	0	50	38	40	0	78	44	5	0	49	177
% Lights	92.3	100.0	-	98.0	95.0	100.0	-	97.5	93.6	100.0	-	94.2	96.7
Other Vehicles	1	0	0	1	2	0	0	2	3	0	0	3	6
% Other Vehicles	7.7	0.0	-	2.0	5.0	0.0	-	2.5	6.4	0.0	-	5.8	3.3

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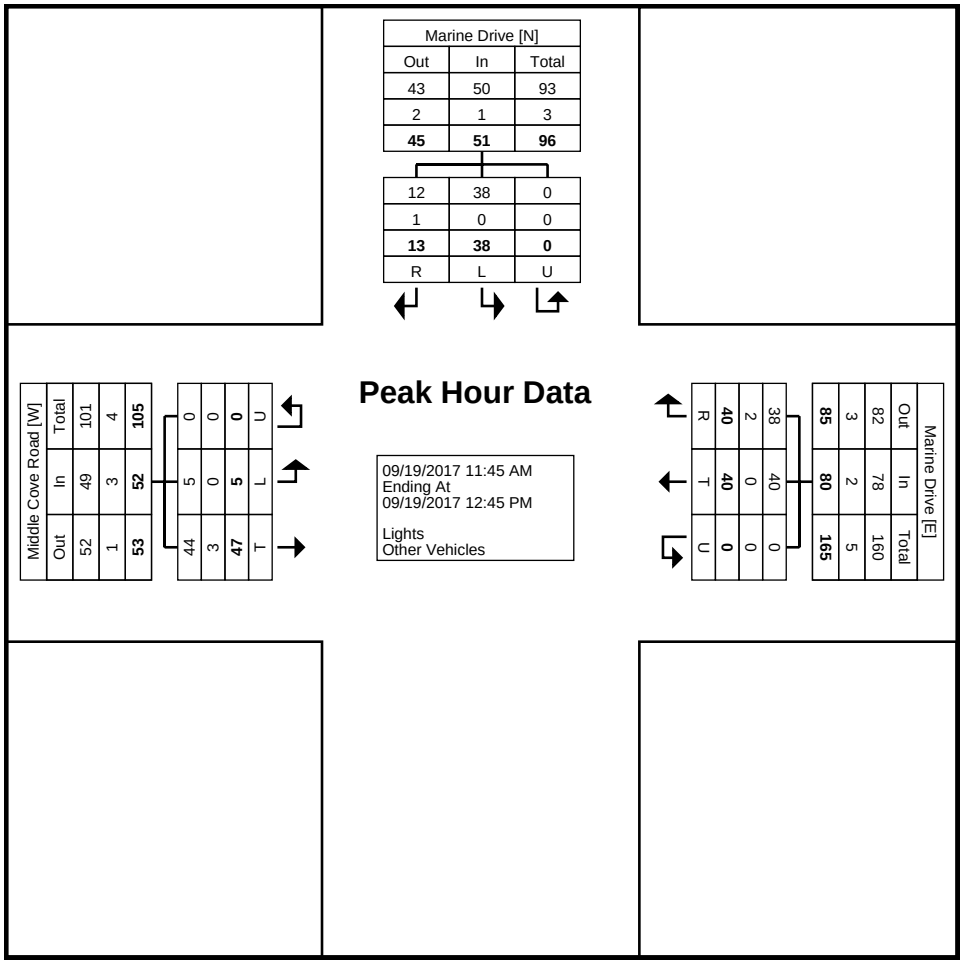
Site Code:
Start Date: 09/19/2017



Turning Movement Peak Hour Data Plot (11:45 AM)

Harbourside Transportation Consultants
8 Rowan Street, Suite 306
Terrace on the Square
St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Marine Drive & Middle Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Marine Drive Southbound				Marine Drive Westbound				Middle Cove Road Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
4:30 PM	1	7	0	8	38	13	0	51	18	0	0	18	77
4:45 PM	3	12	0	15	32	19	0	51	10	2	0	12	78
5:00 PM	2	11	0	13	41	17	0	58	6	1	0	7	78
5:15 PM	2	3	0	5	30	17	0	47	10	0	0	10	62
Total	8	33	0	41	141	66	0	207	44	3	0	47	295
Approach %	19.5	80.5	0.0	-	68.1	31.9	0.0	-	93.6	6.4	0.0	-	-
Total %	2.7	11.2	0.0	13.9	47.8	22.4	0.0	70.2	14.9	1.0	0.0	15.9	-
PHF	0.667	0.688	0.000	0.683	0.860	0.868	0.000	0.892	0.611	0.375	0.000	0.653	0.946
Lights	8	33	0	41	140	65	0	205	44	3	0	47	293
% Lights	100.0	100.0	-	100.0	99.3	98.5	-	99.0	100.0	100.0	-	100.0	99.3
Other Vehicles	0	0	0	0	1	1	0	2	0	0	0	0	2
% Other Vehicles	0.0	0.0	-	0.0	0.7	1.5	-	1.0	0.0	0.0	-	0.0	0.7

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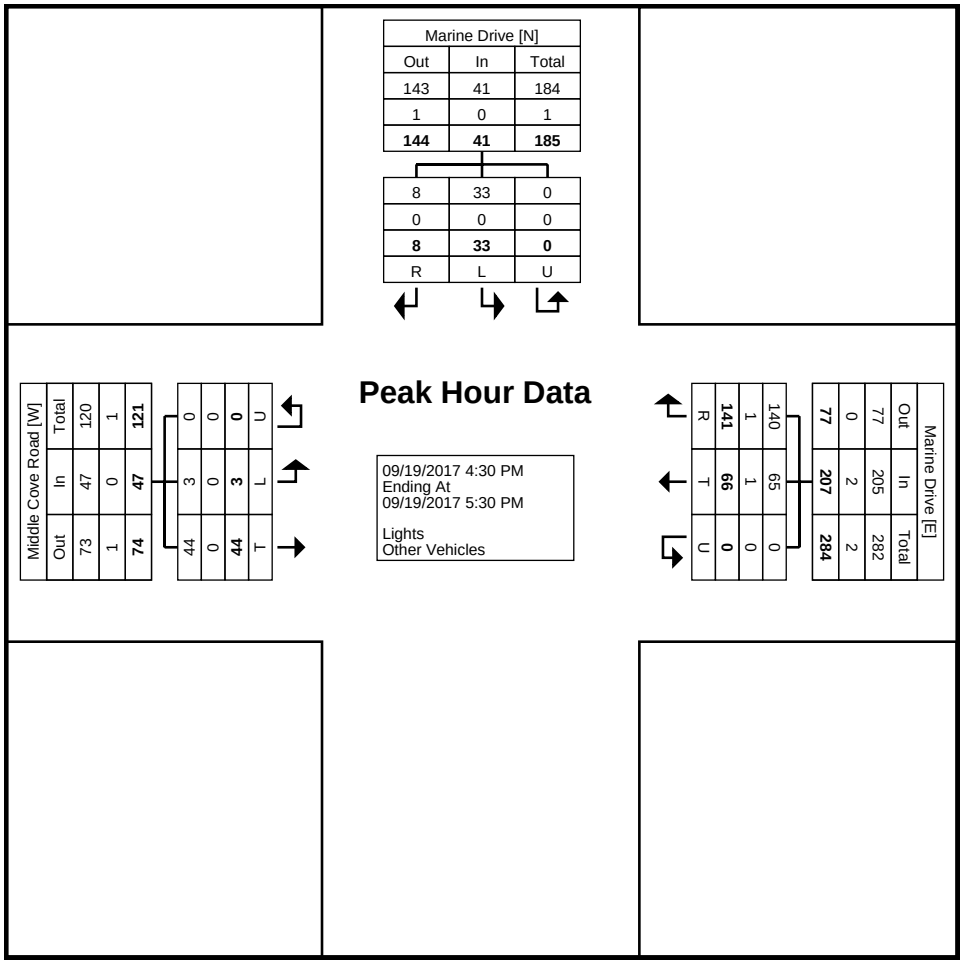

Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Marine Drive & Outer Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Data

Start Time	Marine Drive Westbound				Outer Cove Road Northbound				Marine Drive Eastbound				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
7:00 AM	2	0	0	2	1	1	0	2	8	1	0	9	13
7:15 AM	3	0	0	3	1	4	0	5	17	5	0	22	30
7:30 AM	4	0	0	4	0	2	0	2	34	5	0	39	45
7:45 AM	0	0	0	0	1	2	0	3	32	7	0	39	42
Hourly Total	9	0	0	9	3	9	0	12	91	18	0	109	130
8:00 AM	4	0	0	4	0	6	0	6	40	8	0	48	58
8:15 AM	1	0	0	1	0	13	0	13	37	6	0	43	57
8:30 AM	7	1	0	8	2	8	0	10	45	8	0	53	71
8:45 AM	6	0	0	6	2	1	0	3	28	4	0	32	41
Hourly Total	18	1	0	19	4	28	0	32	150	26	0	176	227
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	6	2	0	8	1	6	0	7	5	1	0	6	21
11:15 AM	4	0	0	4	2	10	0	12	6	4	0	10	26
11:30 AM	6	0	0	6	1	16	0	17	6	7	0	13	36
11:45 AM	9	0	0	9	1	12	0	13	12	10	0	22	44
Hourly Total	25	2	0	27	5	44	0	49	29	22	0	51	127
12:00 PM	5	0	0	5	0	12	0	12	5	6	0	11	28
12:15 PM	8	0	0	8	0	13	0	13	18	9	0	27	48
12:30 PM	4	0	0	4	0	11	0	11	11	9	0	20	35
12:45 PM	5	1	0	6	0	11	0	11	7	4	0	11	28
Hourly Total	22	1	0	23	0	47	0	47	41	28	0	69	139
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	5	0	0	5	2	21	0	23	13	12	0	25	53
4:15 PM	6	0	0	6	3	22	0	25	9	4	0	13	44
4:30 PM	14	1	0	15	1	40	1	42	19	8	0	27	84
4:45 PM	14	0	0	14	0	40	0	40	17	5	0	22	76
Hourly Total	39	1	0	40	6	123	1	130	58	29	0	87	257
5:00 PM	11	2	0	13	1	44	0	45	12	3	0	15	73
5:15 PM	7	1	0	8	0	38	0	38	7	7	0	14	60
5:30 PM	8	2	0	10	0	18	0	18	13	2	0	15	43
5:45 PM	5	3	0	8	0	24	1	25	7	3	0	10	43
Hourly Total	31	8	0	39	1	124	1	126	39	15	0	54	219
Grand Total	144	13	0	157	19	375	2	396	408	138	0	546	1099
Approach %	91.7	8.3	0.0	-	4.8	94.7	0.5	-	74.7	25.3	0.0	-	-
Total %	13.1	1.2	0.0	14.3	1.7	34.1	0.2	36.0	37.1	12.6	0.0	49.7	-
Lights	141	13	0	154	19	371	2	392	402	137	0	539	1085
% Lights	97.9	100.0	-	98.1	100.0	98.9	100.0	99.0	98.5	99.3	-	98.7	98.7
Other Vehicles	3	0	0	3	0	4	0	4	6	1	0	7	14

% Other Vehicles	2.1	0.0	-	1.9	0.0	1.1	0.0	1.0	1.5	0.7	-	1.3	1.3

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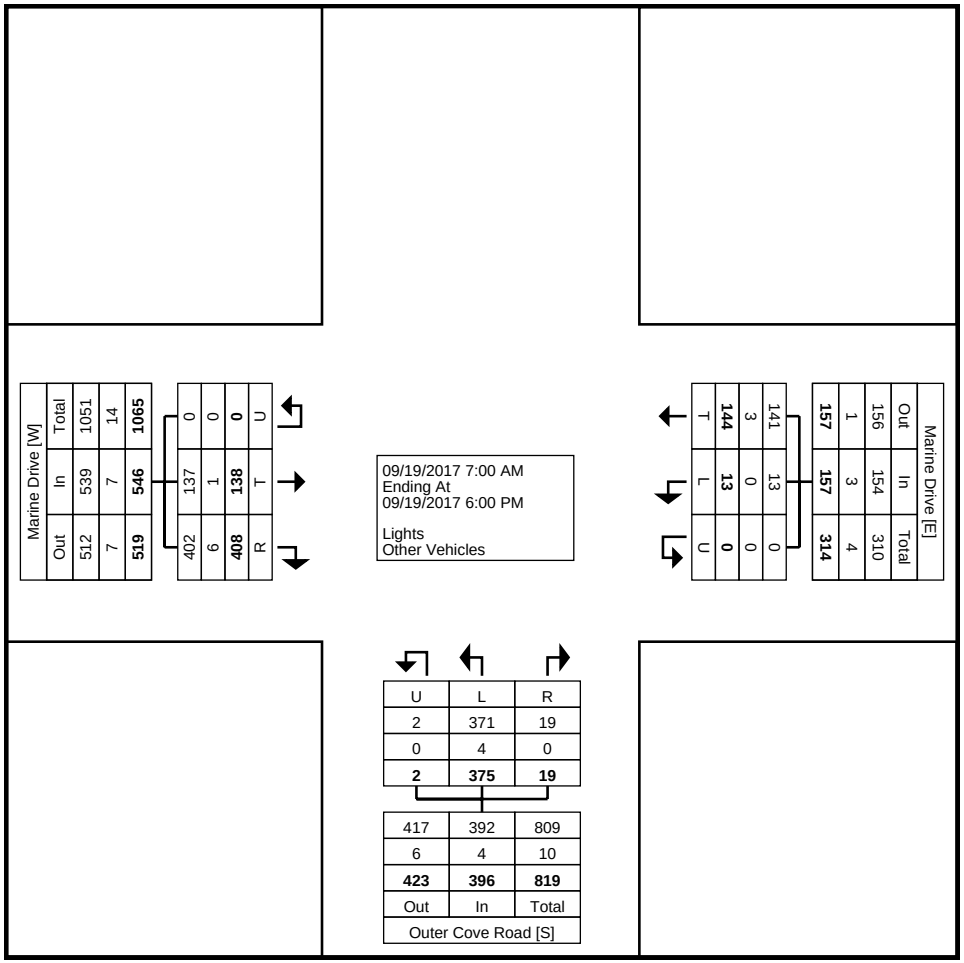
Count Name: Marine Drive & Outer Cove Road
Site Code:
Start Date: 09/19/2017



Turning Movement Data Plot

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Count Name: Marine Drive & Outer Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Marine Drive Westbound				Outer Cove Road Northbound				Marine Drive Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
7:45 AM	0	0	0	0	1	2	0	3	32	7	0	39	42
8:00 AM	4	0	0	4	0	6	0	6	40	8	0	48	58
8:15 AM	1	0	0	1	0	13	0	13	37	6	0	43	57
8:30 AM	7	1	0	8	2	8	0	10	45	8	0	53	71
Total	12	1	0	13	3	29	0	32	154	29	0	183	228
Approach %	92.3	7.7	0.0	-	9.4	90.6	0.0	-	84.2	15.8	0.0	-	-
Total %	5.3	0.4	0.0	5.7	1.3	12.7	0.0	14.0	67.5	12.7	0.0	80.3	-
PHF	0.429	0.250	0.000	0.406	0.375	0.558	0.000	0.615	0.856	0.906	0.000	0.863	0.803
Lights	12	1	0	13	3	28	0	31	153	29	0	182	226
% Lights	100.0	100.0	-	100.0	100.0	96.6	-	96.9	99.4	100.0	-	99.5	99.1
Other Vehicles	0	0	0	0	0	1	0	1	1	0	0	1	2
% Other Vehicles	0.0	0.0	-	0.0	0.0	3.4	-	3.1	0.6	0.0	-	0.5	0.9

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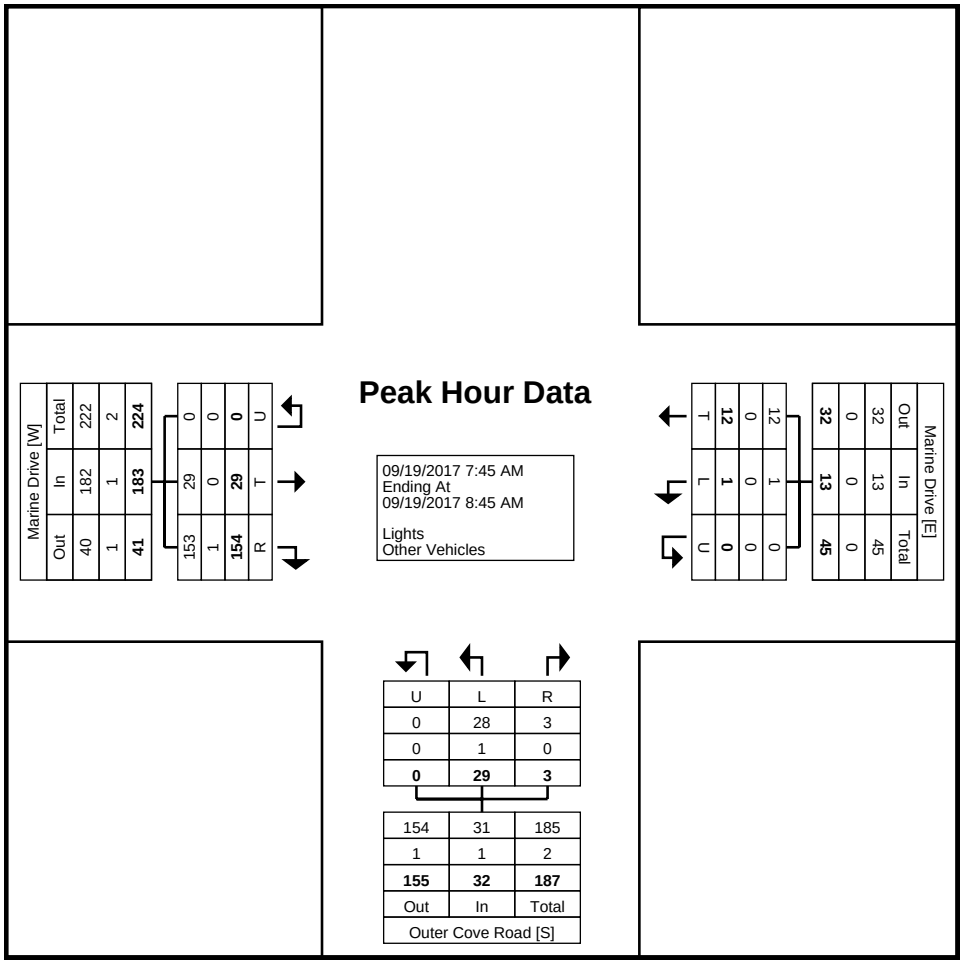
Count Name: Marine Drive & Outer Cove Road
Site Code:
Start Date: 09/19/2017



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Count Name: Marine Drive & Outer Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Marine Drive Westbound				Outer Cove Road Northbound				Marine Drive Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
11:30 AM	6	0	0	6	1	16	0	17	6	7	0	13	36
11:45 AM	9	0	0	9	1	12	0	13	12	10	0	22	44
12:00 PM	5	0	0	5	0	12	0	12	5	6	0	11	28
12:15 PM	8	0	0	8	0	13	0	13	18	9	0	27	48
Total	28	0	0	28	2	53	0	55	41	32	0	73	156
Approach %	100.0	0.0	0.0	-	3.6	96.4	0.0	-	56.2	43.8	0.0	-	-
Total %	17.9	0.0	0.0	17.9	1.3	34.0	0.0	35.3	26.3	20.5	0.0	46.8	-
PHF	0.778	0.000	0.000	0.778	0.500	0.828	0.000	0.809	0.569	0.800	0.000	0.676	0.813
Lights	26	0	0	26	2	52	0	54	40	31	0	71	151
% Lights	92.9	-	-	92.9	100.0	98.1	-	98.2	97.6	96.9	-	97.3	96.8
Other Vehicles	2	0	0	2	0	1	0	1	1	1	0	2	5
% Other Vehicles	7.1	-	-	7.1	0.0	1.9	-	1.8	2.4	3.1	-	2.7	3.2

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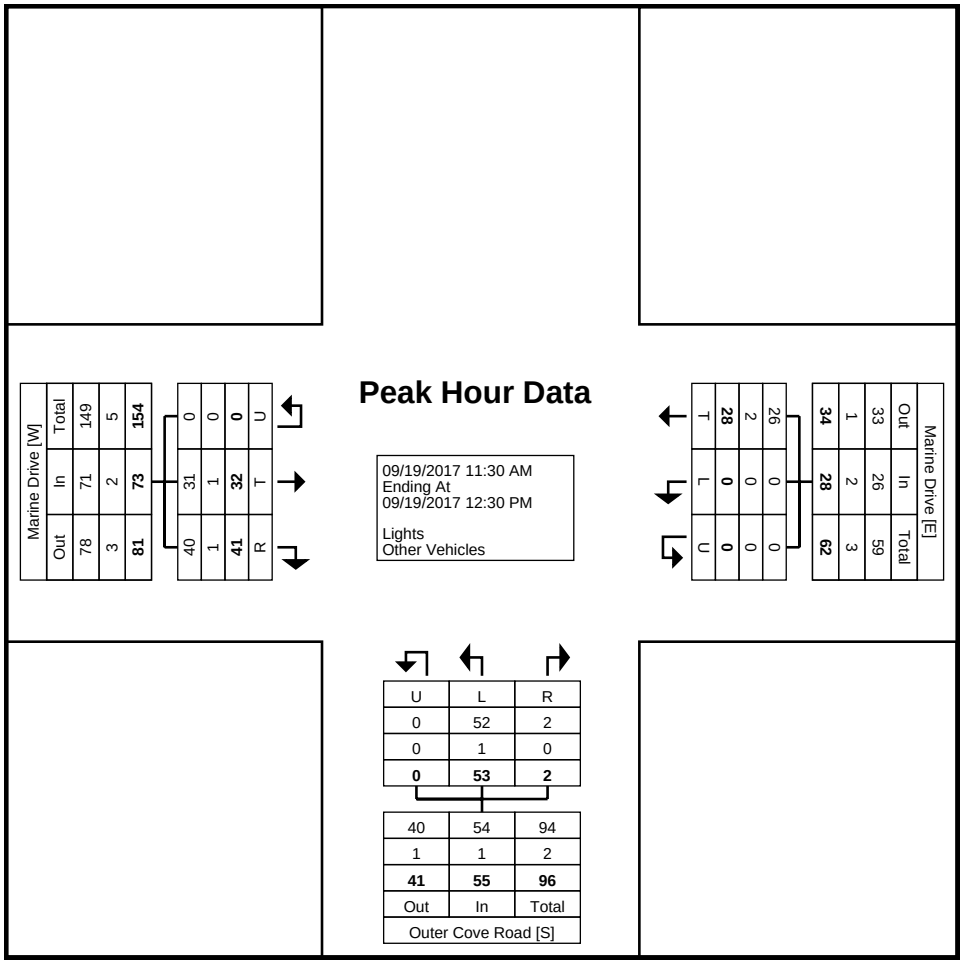
Site Code:
Start Date: 09/19/2017



Turning Movement Peak Hour Data Plot (11:30 AM)

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Count Name: Marine Drive & Outer Cove Road
Site Code:
Start Date: 09/19/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Marine Drive Westbound				Outer Cove Road Northbound				Marine Drive Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
4:30 PM	14	1	0	15	1	40	1	42	19	8	0	27	84
4:45 PM	14	0	0	14	0	40	0	40	17	5	0	22	76
5:00 PM	11	2	0	13	1	44	0	45	12	3	0	15	73
5:15 PM	7	1	0	8	0	38	0	38	7	7	0	14	60
Total	46	4	0	50	2	162	1	165	55	23	0	78	293
Approach %	92.0	8.0	0.0	-	1.2	98.2	0.6	-	70.5	29.5	0.0	-	-
Total %	15.7	1.4	0.0	17.1	0.7	55.3	0.3	56.3	18.8	7.8	0.0	26.6	-
PHF	0.821	0.500	0.000	0.833	0.500	0.920	0.250	0.917	0.724	0.719	0.000	0.722	0.872
Lights	46	4	0	50	2	162	1	165	55	23	0	78	293
% Lights	100.0	100.0	-	100.0	100.0	100.0	100.0	100.0	100.0	100.0	-	100.0	100.0
Other Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Other Vehicles	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0

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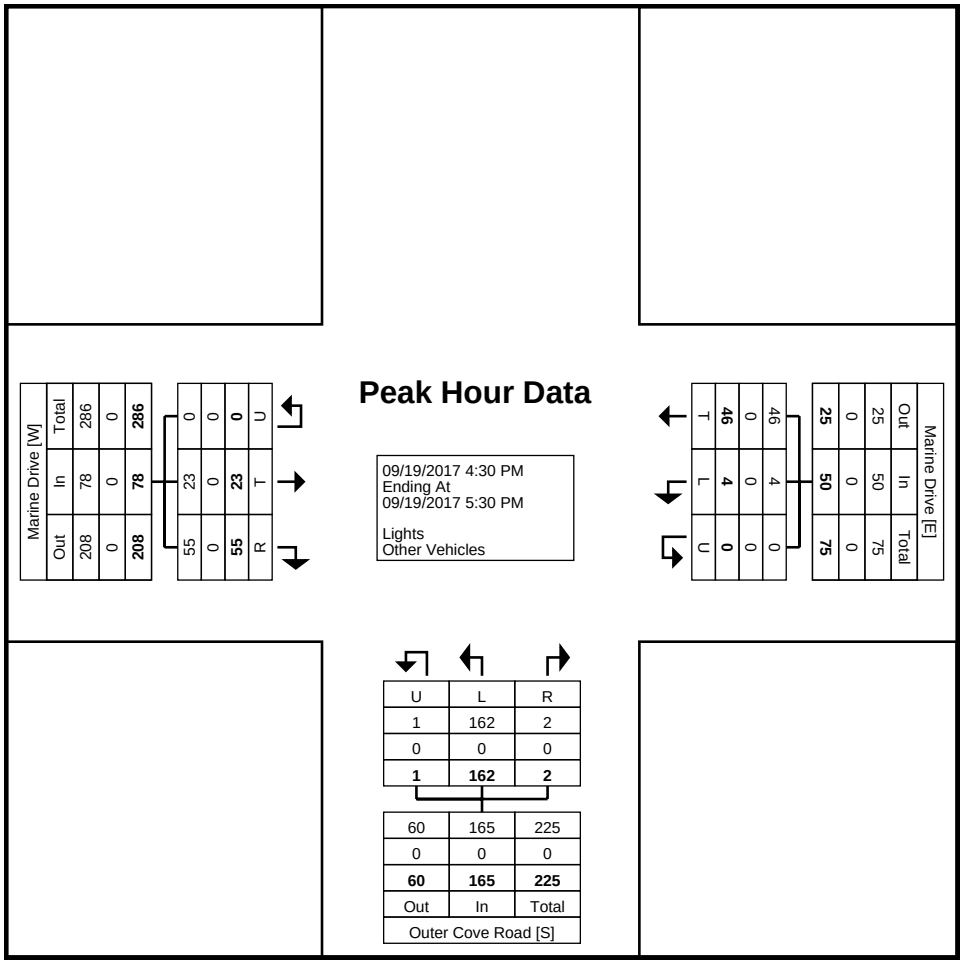

Turning Movement Peak Hour Data Plot (4:30 PM)

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709.579.6435 fallaire@harboursideengineering.ca

Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017

Turning Movement Data

Start Time	Outer Cove Road Southbound					Westbound Approach Westbound					Outer Cove Road Northbound					Big Meadow Drive Eastbound					Int. Total
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	
7:00 AM	0	7	0	0	7	0	0	0	0	0	0	3	1	0	4	1	0	0	0	1	12
7:15 AM	1	22	0	0	23	0	0	0	0	0	0	4	3	0	7	2	0	0	0	2	32
7:30 AM	0	31	0	0	31	0	0	0	0	0	0	4	0	0	4	2	0	0	0	2	37
7:45 AM	1	45	0	0	46	0	0	0	0	0	0	9	2	0	11	5	0	0	0	5	62
Hourly Total	2	105	0	0	107	0	0	0	0	0	0	20	6	0	26	10	0	0	0	10	143
8:00 AM	0	51	0	0	51	0	0	0	0	0	0	11	2	0	13	2	0	0	0	2	66
8:15 AM	0	46	0	0	46	0	0	0	0	0	0	8	0	0	8	3	0	0	0	3	57
8:30 AM	1	44	0	0	45	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	54
8:45 AM	1	21	0	0	22	0	0	0	0	0	0	9	2	0	11	1	0	1	0	2	35
Hourly Total	2	162	0	0	164	0	0	0	0	0	0	35	5	0	40	7	0	1	0	8	212
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	1	8	0	0	9	0	0	0	0	0	0	13	1	0	14	1	0	0	0	1	24
11:15 AM	0	16	0	0	16	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	23
11:30 AM	1	13	0	0	14	0	0	0	0	0	0	12	0	0	12	2	0	1	0	3	29
11:45 AM	0	9	0	0	9	0	0	0	0	0	0	19	3	0	22	1	0	0	0	1	32
Hourly Total	2	46	0	0	48	0	0	0	0	0	0	51	4	0	55	4	0	1	0	5	108
12:00 PM	0	6	1	0	7	0	0	0	0	0	0	14	3	0	17	2	0	0	0	2	26
12:15 PM	1	26	0	0	27	0	0	1	0	1	0	11	1	0	12	2	0	0	0	2	42
12:30 PM	0	12	0	0	12	0	0	0	0	0	1	14	3	0	18	3	0	0	0	3	33
12:45 PM	0	17	0	0	17	0	0	0	0	0	0	19	0	0	19	1	0	0	0	1	37
Hourly Total	1	61	1	0	63	0	0	1	0	1	1	58	7	0	66	8	0	0	0	8	138
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	2	12	0	0	14	0	0	0	0	0	0	36	6	0	42	2	0	0	0	2	58
4:15 PM	0	12	0	0	12	0	0	0	0	0	0	32	3	0	35	0	0	0	0	0	47
4:30 PM	1	14	0	0	15	0	0	0	0	0	0	43	2	0	45	1	0	1	0	2	62
4:45 PM	0	18	0	0	18	0	0	0	0	0	0	56	6	0	62	3	0	0	0	3	83
Hourly Total	3	56	0	0	59	0	0	0	0	0	0	167	17	0	184	6	0	1	0	7	250
5:00 PM	2	10	0	0	12	0	0	0	0	0	0	50	1	0	51	3	0	0	0	3	66
5:15 PM	0	15	0	0	15	0	0	1	0	1	0	39	1	0	40	0	0	0	0	0	56
5:30 PM	1	9	0	0	10	0	0	0	0	0	0	25	4	0	29	1	0	1	0	2	41
5:45 PM	0	9	0	0	9	0	0	0	0	0	0	21	3	0	24	1	0	0	0	1	34
Hourly Total	3	43	0	0	46	0	0	1	0	1	0	135	9	0	144	5	0	1	0	6	197
Grand Total	13	473	1	0	487	0	0	2	0	2	1	466	48	0	515	40	0	4	0	44	1048
Approach %	2.7	97.1	0.2	0.0	-	0.0	0.0	100.0	0.0	-	0.2	90.5	9.3	0.0	-	90.9	0.0	9.1	0.0	-	-
Total %	1.2	45.1	0.1	0.0	46.5	0.0	0.0	0.2	0.0	0.2	0.1	44.5	4.6	0.0	49.1	3.8	0.0	0.4	0.0	4.2	-
Lights	12	460	1	0	473	0	0	2	0	2	1	459	45	0	505	37	0	4	0	41	1021
% Lights	92.3	97.3	100.0	-	97.1	-	-	100.0	-	100.0	100.0	98.5	93.8	-	98.1	92.5	-	100.0	-	93.2	97.4
Other Vehicles	1	13	0	0	14	0	0	0	0	0	0	7	3	0	10	3	0	0	0	3	27

% Other Vehicles	7.7	2.7	0.0	-	2.9	-	-	0.0	-	0.0	0.0	1.5	6.3	-	1.9	7.5	-	0.0	-	6.8	2.6

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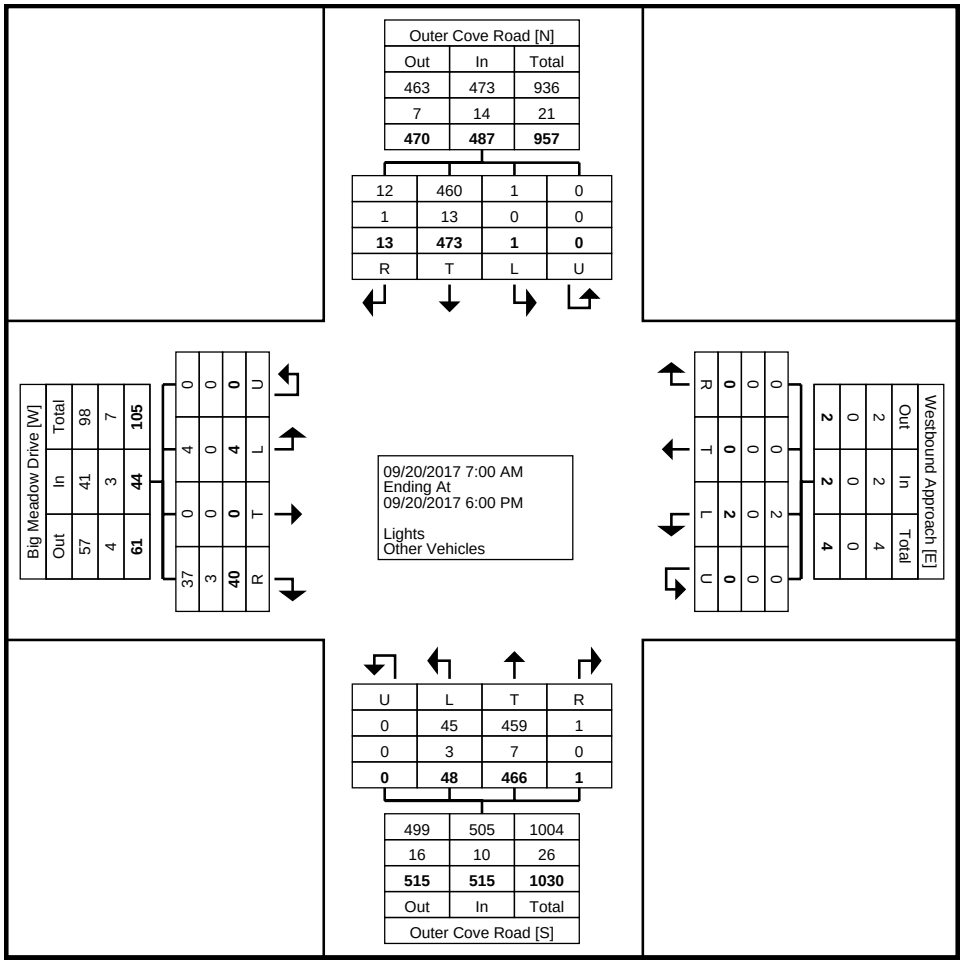
Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017



Turning Movement Data Plot

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Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Outer Cove Road Southbound					Westbound Approach Westbound					Outer Cove Road Northbound					Big Meadow Drive Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
7:45 AM	1	45	0	0	46	0	0	0	0	0	0	9	2	0	11	5	0	0	0	5	62
8:00 AM	0	51	0	0	51	0	0	0	0	0	0	11	2	0	13	2	0	0	0	2	66
8:15 AM	0	46	0	0	46	0	0	0	0	0	0	8	0	0	8	3	0	0	0	3	57
8:30 AM	1	44	0	0	45	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	54
Total	2	186	0	0	188	0	0	0	0	0	0	35	5	0	40	11	0	0	0	11	239
Approach %	1.1	98.9	0.0	0.0	-	NaN	NaN	NaN	NaN	-	0.0	87.5	12.5	0.0	-	100.0	0.0	0.0	0.0	-	-
Total %	0.8	77.8	0.0	0.0	78.7	0.0	0.0	0.0	0.0	0.0	0.0	14.6	2.1	0.0	16.7	4.6	0.0	0.0	0.0	4.6	-
PHF	0.500	0.912	0.000	0.000	0.922	0.000	0.000	0.000	0.000	0.000	0.000	0.795	0.625	0.000	0.769	0.550	0.000	0.000	0.000	0.550	0.905
Lights	2	181	0	0	183	0	0	0	0	0	0	33	5	0	38	11	0	0	0	11	232
% Lights	100.0	97.3	-	-	97.3	-	-	-	-	-	-	94.3	100.0	-	95.0	100.0	-	-	-	100.0	97.1
Other Vehicles	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
% Other Vehicles	0.0	2.7	-	-	2.7	-	-	-	-	-	-	5.7	0.0	-	5.0	0.0	-	-	-	0.0	2.9

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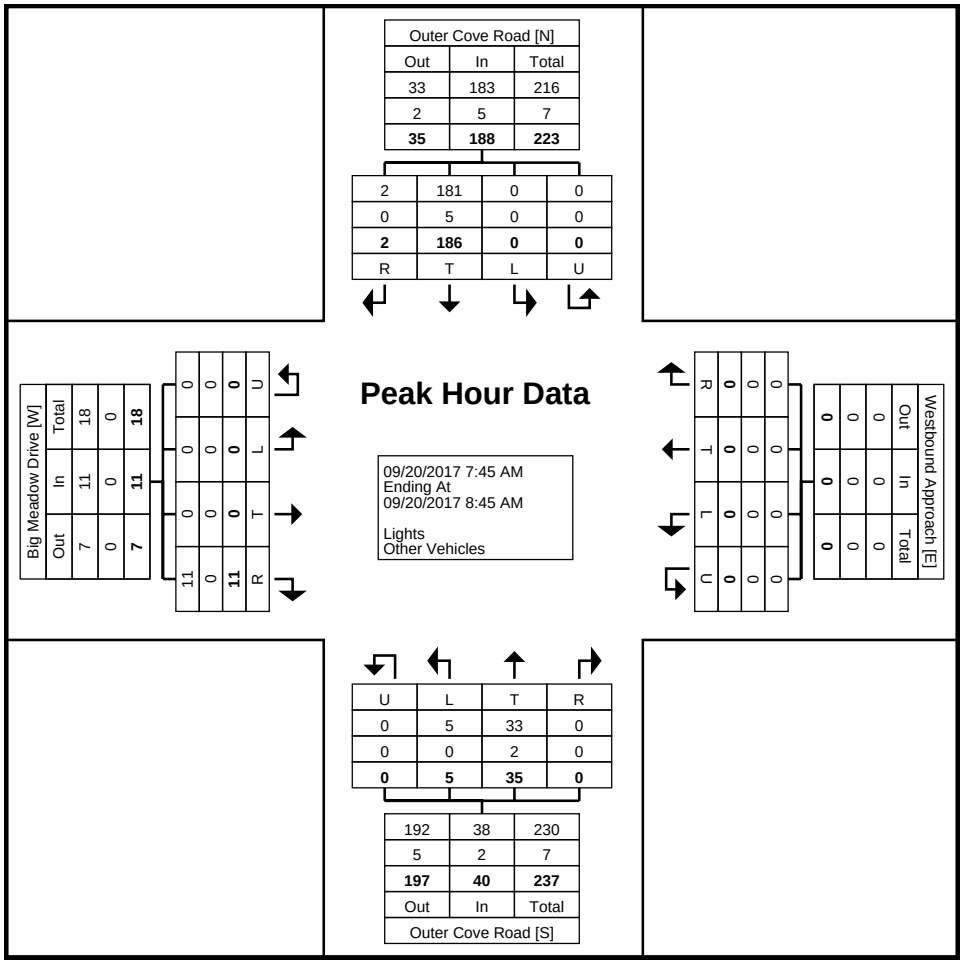
Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017



Turning Movement Peak Hour Data Plot (7:45 AM)

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Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Outer Cove Road Southbound					Westbound Approach Westbound					Outer Cove Road Northbound					Big Meadow Drive Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	0	6	1	0	7	0	0	0	0	0	0	14	3	0	17	2	0	0	0	2	26
12:15 PM	1	26	0	0	27	0	0	1	0	1	0	11	1	0	12	2	0	0	0	2	42
12:30 PM	0	12	0	0	12	0	0	0	0	0	1	14	3	0	18	3	0	0	0	3	33
12:45 PM	0	17	0	0	17	0	0	0	0	0	0	19	0	0	19	1	0	0	0	1	37
Total	1	61	1	0	63	0	0	1	0	1	1	58	7	0	66	8	0	0	0	8	138
Approach %	1.6	96.8	1.6	0.0	-	0.0	0.0	100.0	0.0	-	1.5	87.9	10.6	0.0	-	100.0	0.0	0.0	0.0	-	-
Total %	0.7	44.2	0.7	0.0	45.7	0.0	0.0	0.7	0.0	0.7	0.7	42.0	5.1	0.0	47.8	5.8	0.0	0.0	0.0	5.8	-
PHF	0.250	0.587	0.250	0.000	0.583	0.000	0.000	0.250	0.000	0.250	0.250	0.763	0.583	0.000	0.868	0.667	0.000	0.000	0.000	0.667	0.821
Lights	1	60	1	0	62	0	0	1	0	1	1	57	7	0	65	7	0	0	0	7	135
% Lights	100.0	98.4	100.0	-	98.4	-	-	100.0	-	100.0	100.0	98.3	100.0	-	98.5	87.5	-	-	-	87.5	97.8
Other Vehicles	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	3
% Other Vehicles	0.0	1.6	0.0	-	1.6	-	-	0.0	-	0.0	0.0	1.7	0.0	-	1.5	12.5	-	-	-	12.5	2.2

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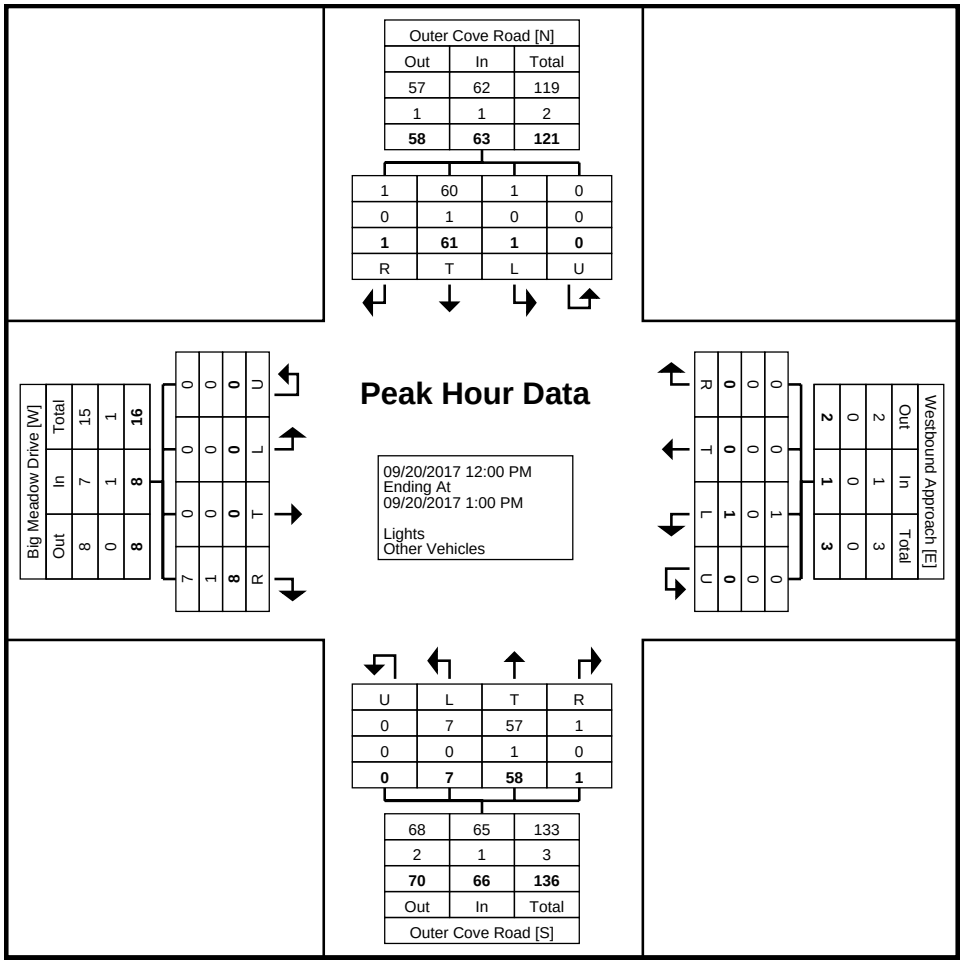
Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017



Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Outer Cove Road Southbound					Westbound Approach Westbound					Outer Cove Road Northbound					Big Meadow Drive Eastbound					
	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Right	Thru	Left	U-Turn	App. Total	Int. Total
4:30 PM	1	14	0	0	15	0	0	0	0	0	0	43	2	0	45	1	0	1	0	2	62
4:45 PM	0	18	0	0	18	0	0	0	0	0	0	56	6	0	62	3	0	0	0	3	83
5:00 PM	2	10	0	0	12	0	0	0	0	0	0	50	1	0	51	3	0	0	0	3	66
5:15 PM	0	15	0	0	15	0	0	1	0	1	0	39	1	0	40	0	0	0	0	0	56
Total	3	57	0	0	60	0	0	1	0	1	0	188	10	0	198	7	0	1	0	8	267
Approach %	5.0	95.0	0.0	0.0	-	0.0	0.0	100.0	0.0	-	0.0	94.9	5.1	0.0	-	87.5	0.0	12.5	0.0	-	-
Total %	1.1	21.3	0.0	0.0	22.5	0.0	0.0	0.4	0.0	0.4	0.0	70.4	3.7	0.0	74.2	2.6	0.0	0.4	0.0	3.0	-
PHF	0.375	0.792	0.000	0.000	0.833	0.000	0.000	0.250	0.000	0.250	0.000	0.839	0.417	0.000	0.798	0.583	0.000	0.250	0.000	0.667	0.804
Lights	3	57	0	0	60	0	0	1	0	1	0	187	10	0	197	6	0	1	0	7	265
% Lights	100.0	100.0	-	-	100.0	-	-	100.0	-	100.0	-	99.5	100.0	-	99.5	85.7	-	100.0	-	87.5	99.3
Other Vehicles	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	2
% Other Vehicles	0.0	0.0	-	-	0.0	-	-	0.0	-	0.0	-	0.5	0.0	-	0.5	14.3	-	0.0	-	12.5	0.7

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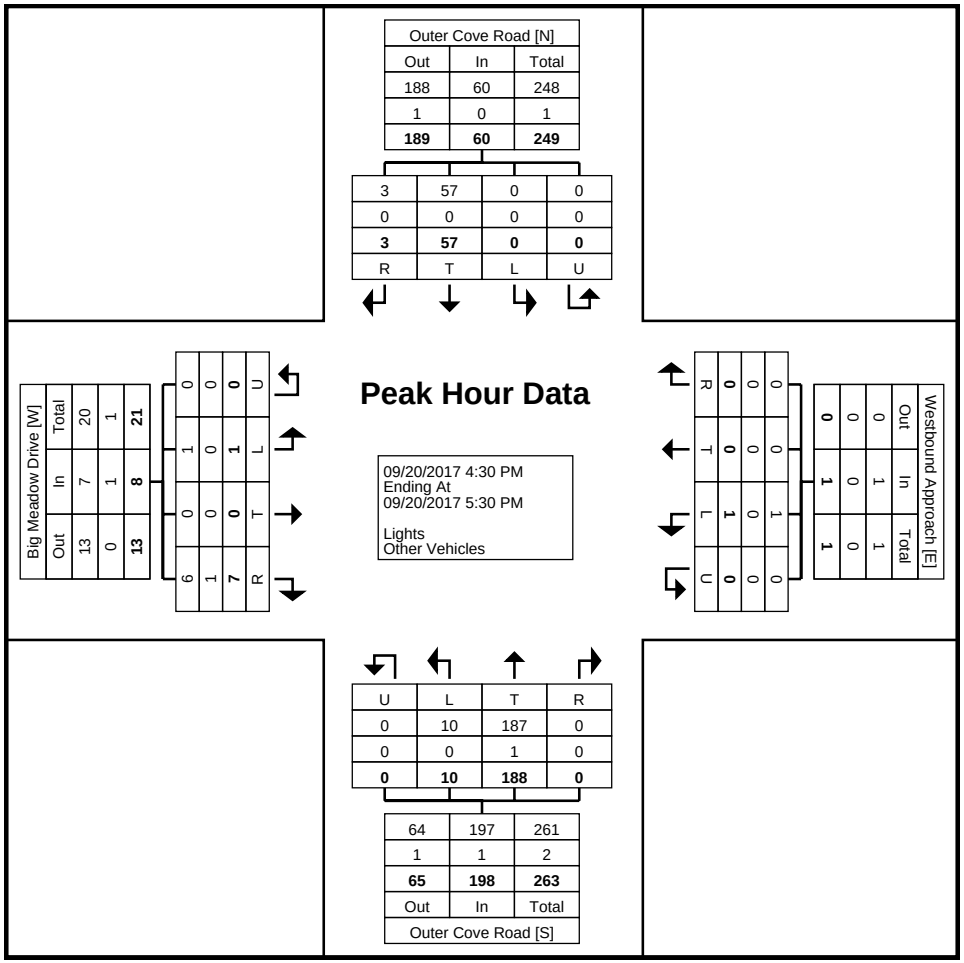
Count Name: Outer Cove Road & Big Meadow Drive
Site Code:
Start Date: 09/20/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017

Turning Movement Data

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				Pine Line Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
7:00 AM	2	3	0	5	3	0	0	3	2	0	0	2	10
7:15 AM	1	16	0	17	1	3	0	4	5	0	0	5	26
7:30 AM	1	30	0	31	2	1	0	3	3	0	0	3	37
7:45 AM	0	34	0	34	8	1	0	9	12	0	0	12	55
Hourly Total	4	83	0	87	14	5	0	19	22	0	0	22	128
8:00 AM	1	39	0	40	6	5	0	11	9	1	0	10	61
8:15 AM	1	31	0	32	2	4	0	6	12	2	0	14	52
8:30 AM	1	23	0	24	2	1	0	3	3	2	0	5	32
8:45 AM	1	13	0	14	2	1	0	3	6	0	0	6	23
Hourly Total	4	106	0	110	12	11	0	23	30	5	0	35	168
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	2	6	0	8	7	3	0	10	4	1	0	5	23
11:15 AM	3	9	0	12	8	0	0	8	2	0	0	2	22
11:30 AM	0	12	0	12	6	2	0	8	2	0	0	2	22
11:45 AM	0	7	0	7	12	2	0	14	2	4	0	6	27
Hourly Total	5	34	0	39	33	7	0	40	10	5	0	15	94
12:00 PM	2	9	0	11	10	5	0	15	4	3	0	7	33
12:15 PM	3	9	0	12	11	4	0	15	8	3	0	11	38
12:30 PM	1	4	0	5	9	2	0	11	3	1	0	4	20
12:45 PM	0	7	0	7	5	9	0	14	3	1	0	4	25
Hourly Total	6	29	0	35	35	20	0	55	18	8	0	26	116
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	12	0	12	22	6	0	28	5	3	0	8	48
4:15 PM	0	5	0	5	26	7	0	33	5	2	0	7	45
4:30 PM	0	6	0	6	34	12	0	46	3	5	0	8	60
4:45 PM	0	14	0	14	37	11	0	48	4	2	0	6	68
Hourly Total	0	37	0	37	119	36	0	155	17	12	0	29	221
5:00 PM	1	10	0	11	40	6	0	46	5	5	0	10	67
5:15 PM	1	8	0	9	30	5	0	35	0	2	0	2	46
5:30 PM	2	7	0	9	15	2	0	17	4	2	0	6	32
5:45 PM	1	7	0	8	18	3	0	21	2	2	0	4	33
Hourly Total	5	32	0	37	103	16	0	119	11	11	0	22	178
Grand Total	24	321	0	345	316	95	0	411	108	41	0	149	905
Approach %	7.0	93.0	0.0	-	76.9	23.1	0.0	-	72.5	27.5	0.0	-	-
Total %	2.7	35.5	0.0	38.1	34.9	10.5	0.0	45.4	11.9	4.5	0.0	16.5	-
Lights	24	319	0	343	313	91	0	404	105	39	0	144	891
% Lights	100.0	99.4	-	99.4	99.1	95.8	-	98.3	97.2	95.1	-	96.6	98.5
Other Vehicles	0	2	0	2	3	4	0	7	3	2	0	5	14

% Other Vehicles	0.0	0.6	-	0.6	0.9	4.2	-	1.7	2.8	4.9	-	3.4	1.5

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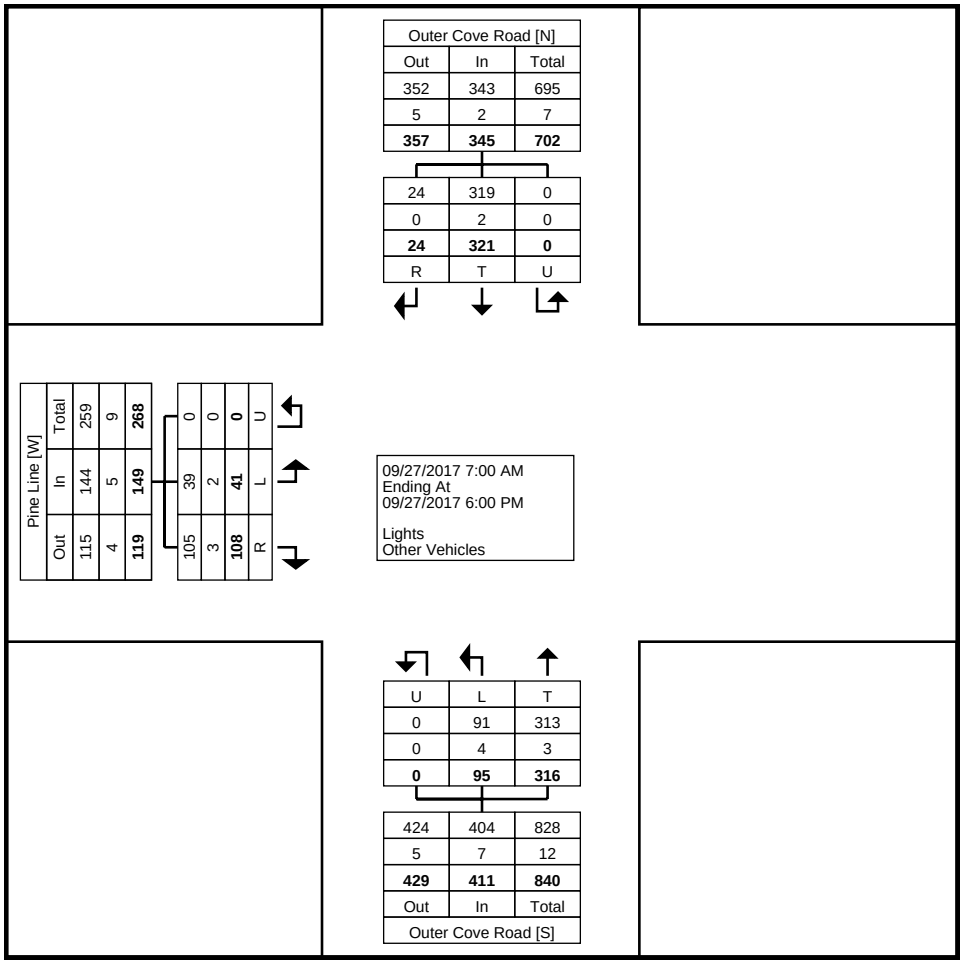
Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017



Turning Movement Data Plot

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709.579.6435 fallaire@harboursideengineering.ca

Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				Pine Line Eastbound				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
7:30 AM	1	30	0	31	2	1	0	3	3	0	0	3	37
7:45 AM	0	34	0	34	8	1	0	9	12	0	0	12	55
8:00 AM	1	39	0	40	6	5	0	11	9	1	0	10	61
8:15 AM	1	31	0	32	2	4	0	6	12	2	0	14	52
Total	3	134	0	137	18	11	0	29	36	3	0	39	205
Approach %	2.2	97.8	0.0	-	62.1	37.9	0.0	-	92.3	7.7	0.0	-	-
Total %	1.5	65.4	0.0	66.8	8.8	5.4	0.0	14.1	17.6	1.5	0.0	19.0	-
PHF	0.750	0.859	0.000	0.856	0.563	0.550	0.000	0.659	0.750	0.375	0.000	0.696	0.840
Lights	3	134	0	137	18	8	0	26	35	2	0	37	200
% Lights	100.0	100.0	-	100.0	100.0	72.7	-	89.7	97.2	66.7	-	94.9	97.6
Other Vehicles	0	0	0	0	0	3	0	3	1	1	0	2	5
% Other Vehicles	0.0	0.0	-	0.0	0.0	27.3	-	10.3	2.8	33.3	-	5.1	2.4

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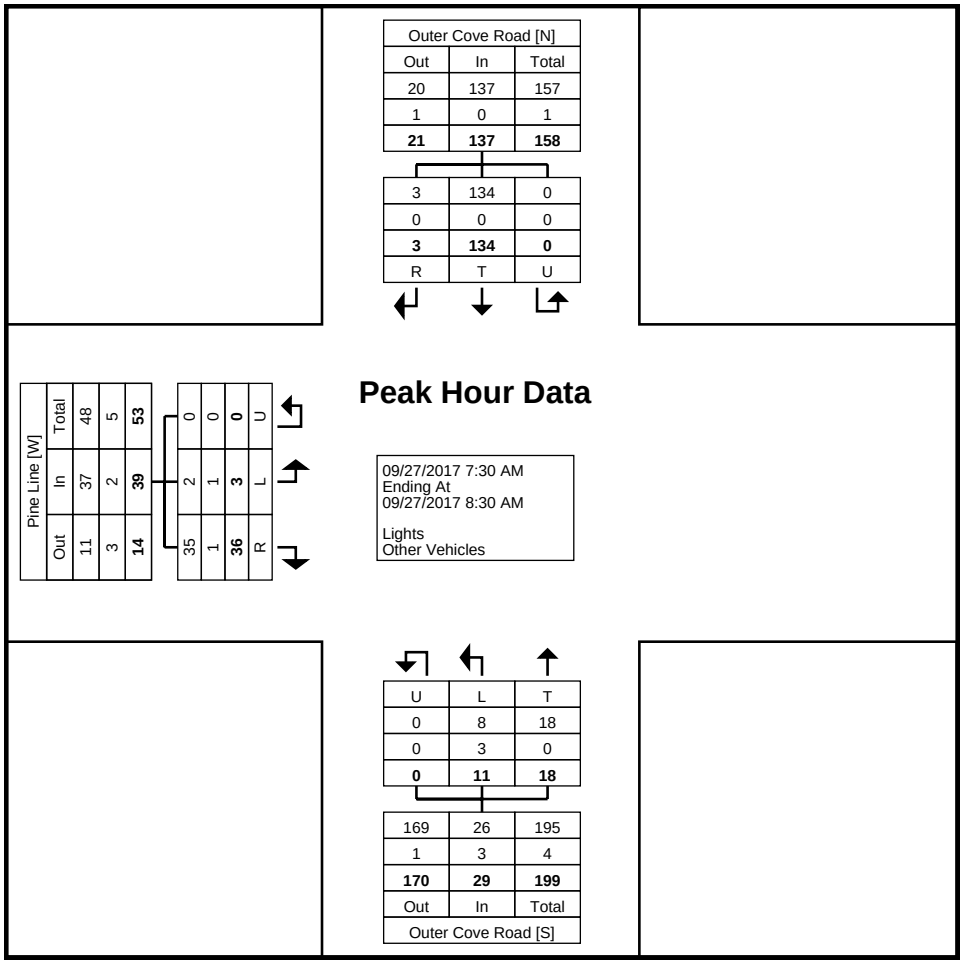
Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017



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

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Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (11:30 AM)

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				Pine Line Eastbound				Int. Total
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	
11:30 AM	0	12	0	12	6	2	0	8	2	0	0	2	22
11:45 AM	0	7	0	7	12	2	0	14	2	4	0	6	27
12:00 PM	2	9	0	11	10	5	0	15	4	3	0	7	33
12:15 PM	3	9	0	12	11	4	0	15	8	3	0	11	38
Total	5	37	0	42	39	13	0	52	16	10	0	26	120
Approach %	11.9	88.1	0.0	-	75.0	25.0	0.0	-	61.5	38.5	0.0	-	-
Total %	4.2	30.8	0.0	35.0	32.5	10.8	0.0	43.3	13.3	8.3	0.0	21.7	-
PHF	0.417	0.771	0.000	0.875	0.813	0.650	0.000	0.867	0.500	0.625	0.000	0.591	0.789
Lights	5	37	0	42	38	13	0	51	16	10	0	26	119
% Lights	100.0	100.0	-	100.0	97.4	100.0	-	98.1	100.0	100.0	-	100.0	99.2
Other Vehicles	0	0	0	0	1	0	0	1	0	0	0	0	1
% Other Vehicles	0.0	0.0	-	0.0	2.6	0.0	-	1.9	0.0	0.0	-	0.0	0.8

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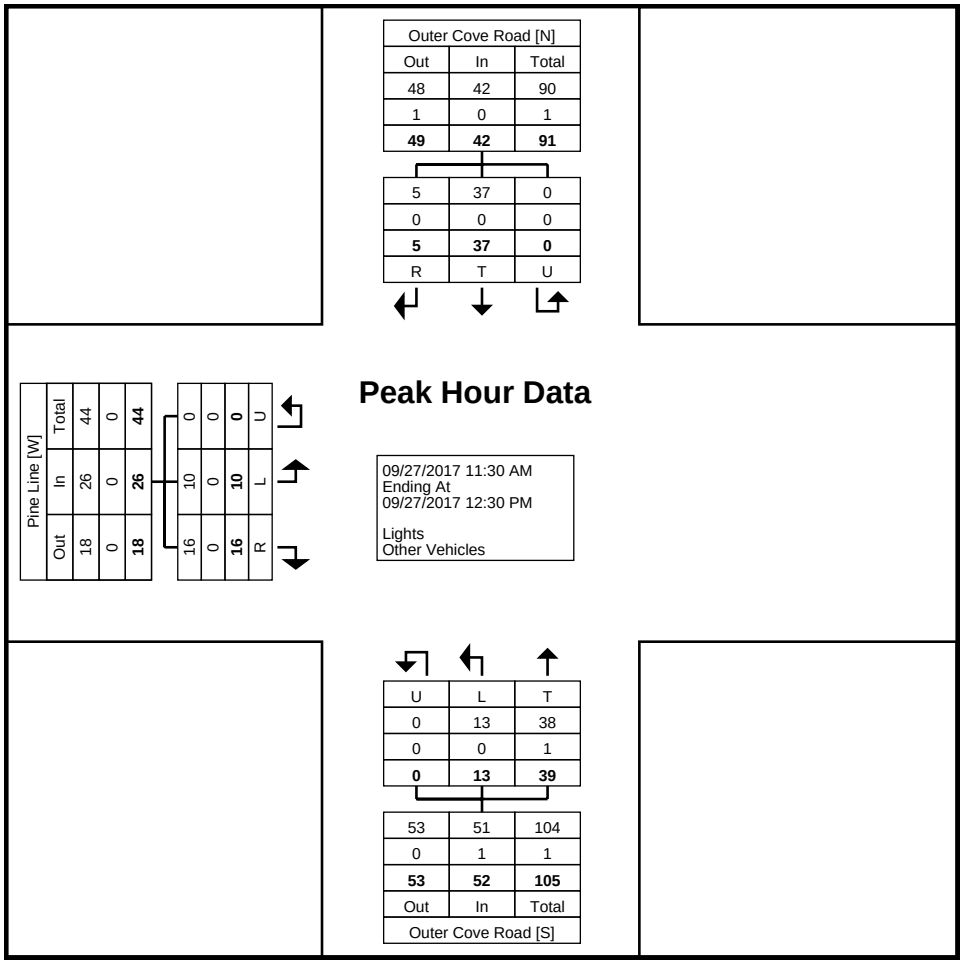
Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017



Turning Movement Peak Hour Data Plot (11:30 AM)

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Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				Pine Line Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
4:30 PM	0	6	0	6	34	12	0	46	3	5	0	8	60
4:45 PM	0	14	0	14	37	11	0	48	4	2	0	6	68
5:00 PM	1	10	0	11	40	6	0	46	5	5	0	10	67
5:15 PM	1	8	0	9	30	5	0	35	0	2	0	2	46
Total	2	38	0	40	141	34	0	175	12	14	0	26	241
Approach %	5.0	95.0	0.0	-	80.6	19.4	0.0	-	46.2	53.8	0.0	-	-
Total %	0.8	15.8	0.0	16.6	58.5	14.1	0.0	72.6	5.0	5.8	0.0	10.8	-
PHF	0.500	0.679	0.000	0.714	0.881	0.708	0.000	0.911	0.600	0.700	0.000	0.650	0.886
Lights	2	38	0	40	139	34	0	173	12	13	0	25	238
% Lights	100.0	100.0	-	100.0	98.6	100.0	-	98.9	100.0	92.9	-	96.2	98.8
Other Vehicles	0	0	0	0	2	0	0	2	0	1	0	1	3
% Other Vehicles	0.0	0.0	-	0.0	1.4	0.0	-	1.1	0.0	7.1	-	3.8	1.2

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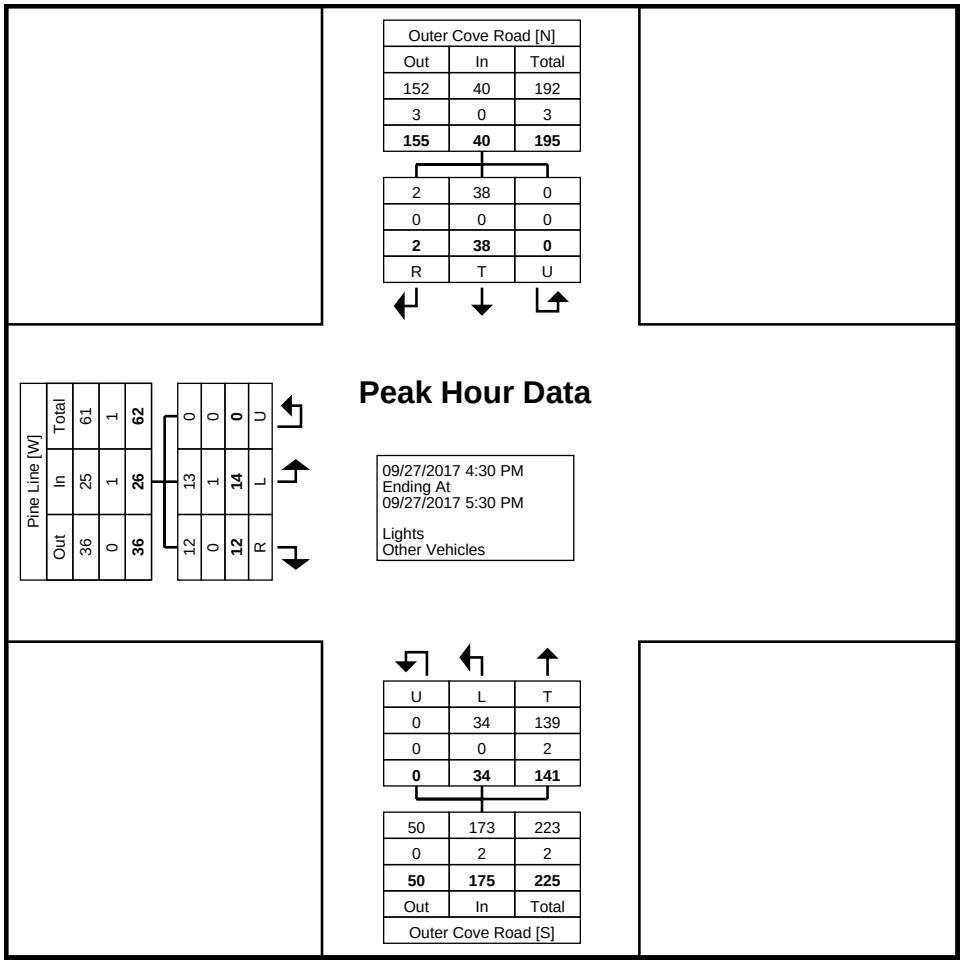
Count Name: Outer Cove Road & Pine Line
Site Code:
Start Date: 09/27/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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709.579.6435 fallaire@harboursideengineering.ca

Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017

Turning Movement Data

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				St. Francis Road Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
7:00 AM	0	9	0	9	2	1	0	3	0	0	0	0	12
7:15 AM	2	17	0	19	4	1	0	5	1	0	0	1	25
7:30 AM	0	31	0	31	6	2	0	8	6	1	0	7	46
7:45 AM	0	61	0	61	6	2	0	8	18	0	0	18	87
Hourly Total	2	118	0	120	18	6	0	24	25	1	0	26	170
8:00 AM	4	50	0	54	15	2	0	17	16	0	0	16	87
8:15 AM	0	28	0	28	17	3	0	20	14	1	0	15	63
8:30 AM	1	30	0	31	9	3	0	12	8	0	0	8	51
8:45 AM	0	21	0	21	9	3	0	12	5	0	0	5	38
Hourly Total	5	129	0	134	50	11	0	61	43	1	0	44	239
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	1	8	0	9	13	1	0	14	2	1	0	3	26
11:15 AM	0	14	0	14	13	0	0	13	5	0	0	5	32
11:30 AM	1	10	0	11	18	3	0	21	1	1	0	2	34
11:45 AM	1	14	0	15	18	4	0	22	5	0	0	5	42
Hourly Total	3	46	0	49	62	8	0	70	13	2	0	15	134
12:00 PM	0	10	0	10	23	3	0	26	1	1	0	2	38
12:15 PM	2	9	0	11	20	3	0	23	3	1	0	4	38
12:30 PM	1	20	0	21	17	1	0	18	8	0	0	8	47
12:45 PM	1	19	0	20	14	5	0	19	5	2	0	7	46
Hourly Total	4	58	0	62	74	12	0	86	17	4	0	21	169
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	5	0	5	28	5	0	33	4	1	0	5	43
4:15 PM	0	19	0	19	45	3	1	49	2	1	0	3	71
4:30 PM	0	15	0	15	60	8	0	68	3	1	0	4	87
4:45 PM	1	15	0	16	89	8	0	97	1	0	0	1	114
Hourly Total	1	54	0	55	222	24	1	247	10	3	0	13	315
5:00 PM	0	11	0	11	93	11	0	104	3	0	0	3	118
5:15 PM	0	15	0	15	73	14	0	87	4	2	0	6	108
5:30 PM	0	17	0	17	42	9	0	51	5	0	0	5	73
5:45 PM	1	16	0	17	38	3	0	41	1	0	0	1	59
Hourly Total	1	59	0	60	246	37	0	283	13	2	0	15	358
Grand Total	16	464	0	480	672	98	1	771	121	13	0	134	1385
Approach %	3.3	96.7	0.0	-	87.2	12.7	0.1	-	90.3	9.7	0.0	-	-
Total %	1.2	33.5	0.0	34.7	48.5	7.1	0.1	55.7	8.7	0.9	0.0	9.7	-
Lights	16	460	0	476	660	97	1	758	119	12	0	131	1365
% Lights	100.0	99.1	-	99.2	98.2	99.0	100.0	98.3	98.3	92.3	-	97.8	98.6
Other Vehicles	0	4	0	4	12	1	0	13	2	1	0	3	20

% Other Vehicles	0.0	0.9	-	0.8	1.8	1.0	0.0	1.7	1.7	7.7	-	2.2	1.4

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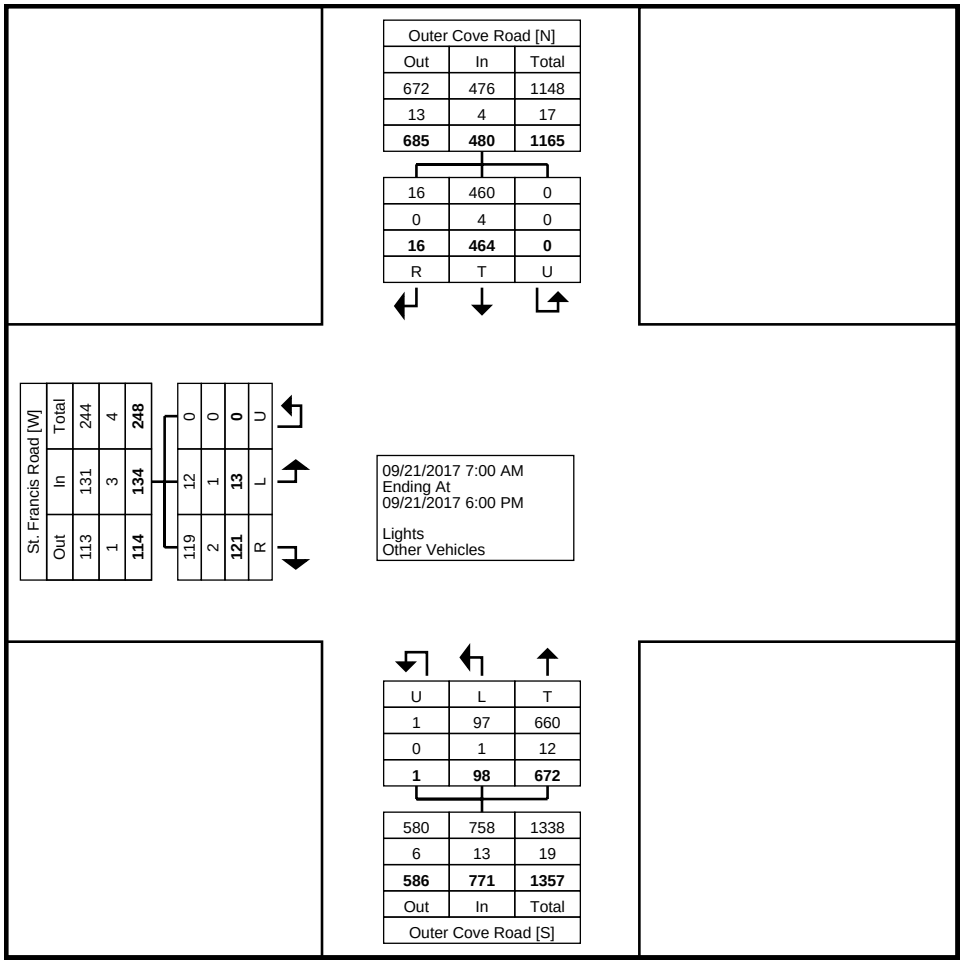
Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017



Turning Movement Data Plot

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Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				St. Francis Road Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
7:45 AM	0	61	0	61	6	2	0	8	18	0	0	18	87
8:00 AM	4	50	0	54	15	2	0	17	16	0	0	16	87
8:15 AM	0	28	0	28	17	3	0	20	14	1	0	15	63
8:30 AM	1	30	0	31	9	3	0	12	8	0	0	8	51
Total	5	169	0	174	47	10	0	57	56	1	0	57	288
Approach %	2.9	97.1	0.0	-	82.5	17.5	0.0	-	98.2	1.8	0.0	-	-
Total %	1.7	58.7	0.0	60.4	16.3	3.5	0.0	19.8	19.4	0.3	0.0	19.8	-
PHF	0.313	0.693	0.000	0.713	0.691	0.833	0.000	0.713	0.778	0.250	0.000	0.792	0.828
Lights	5	169	0	174	44	10	0	54	55	1	0	56	284
% Lights	100.0	100.0	-	100.0	93.6	100.0	-	94.7	98.2	100.0	-	98.2	98.6
Other Vehicles	0	0	0	0	3	0	0	3	1	0	0	1	4
% Other Vehicles	0.0	0.0	-	0.0	6.4	0.0	-	5.3	1.8	0.0	-	1.8	1.4

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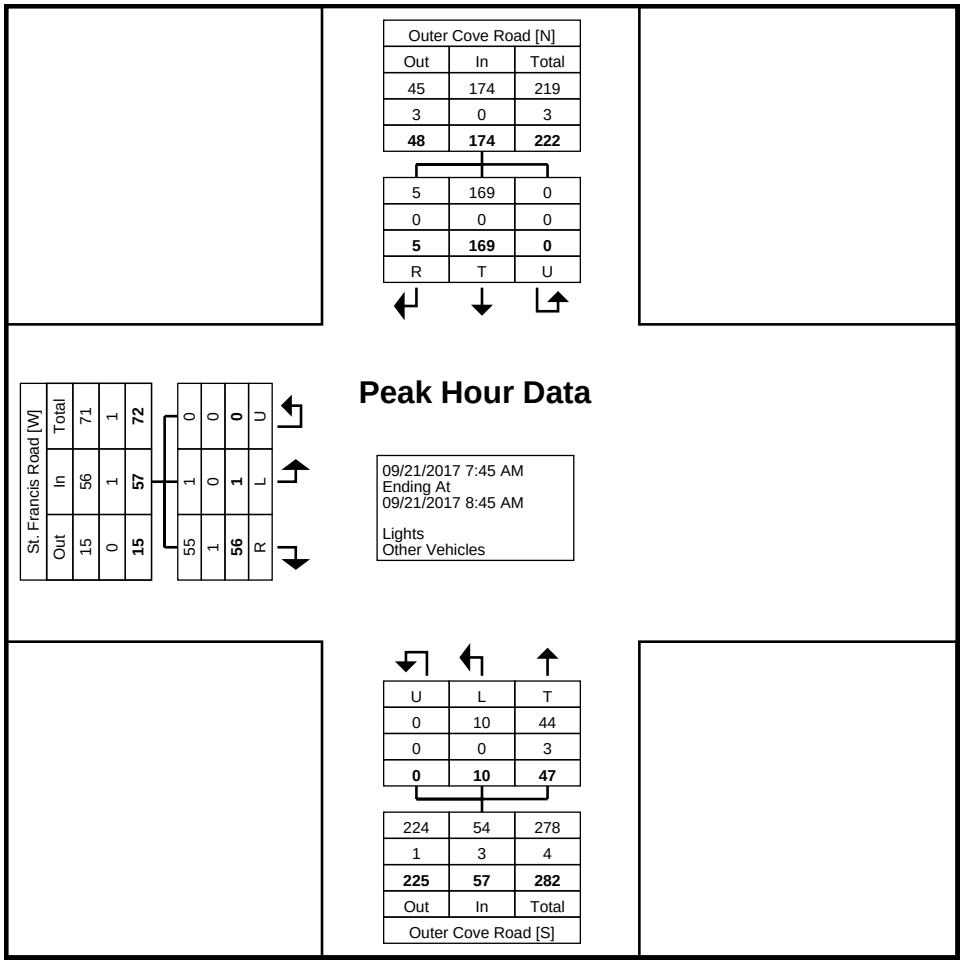
Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017



Turning Movement Peak Hour Data Plot (7:45 AM)

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Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				St. Francis Road Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
12:00 PM	0	10	0	10	23	3	0	26	1	1	0	2	38
12:15 PM	2	9	0	11	20	3	0	23	3	1	0	4	38
12:30 PM	1	20	0	21	17	1	0	18	8	0	0	8	47
12:45 PM	1	19	0	20	14	5	0	19	5	2	0	7	46
Total	4	58	0	62	74	12	0	86	17	4	0	21	169
Approach %	6.5	93.5	0.0	-	86.0	14.0	0.0	-	81.0	19.0	0.0	-	-
Total %	2.4	34.3	0.0	36.7	43.8	7.1	0.0	50.9	10.1	2.4	0.0	12.4	-
PHF	0.500	0.725	0.000	0.738	0.804	0.600	0.000	0.827	0.531	0.500	0.000	0.656	0.899
Lights	4	57	0	61	73	12	0	85	17	4	0	21	167
% Lights	100.0	98.3	-	98.4	98.6	100.0	-	98.8	100.0	100.0	-	100.0	98.8
Other Vehicles	0	1	0	1	1	0	0	1	0	0	0	0	2
% Other Vehicles	0.0	1.7	-	1.6	1.4	0.0	-	1.2	0.0	0.0	-	0.0	1.2

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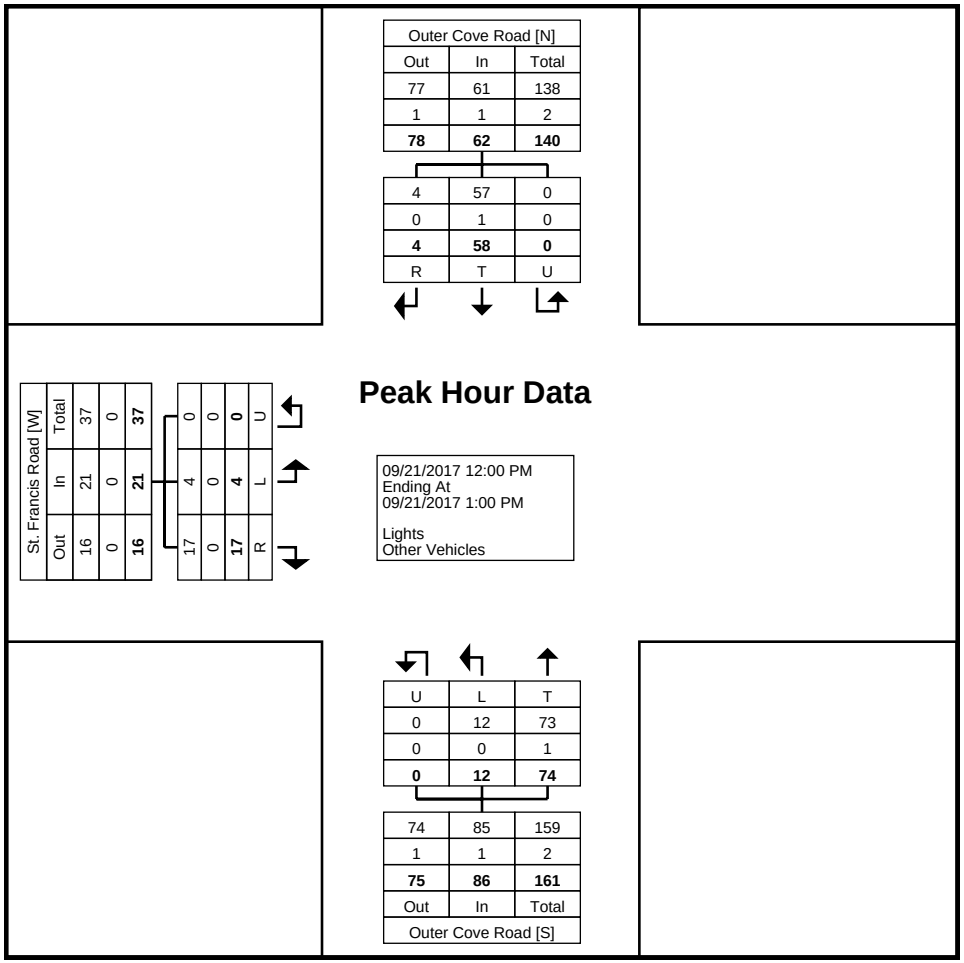
Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017



Turning Movement Peak Hour Data Plot (12:00 PM)

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Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Outer Cove Road Southbound				Outer Cove Road Northbound				St. Francis Road Eastbound				
	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Int. Total
4:30 PM	0	15	0	15	60	8	0	68	3	1	0	4	87
4:45 PM	1	15	0	16	89	8	0	97	1	0	0	1	114
5:00 PM	0	11	0	11	93	11	0	104	3	0	0	3	118
5:15 PM	0	15	0	15	73	14	0	87	4	2	0	6	108
Total	1	56	0	57	315	41	0	356	11	3	0	14	427
Approach %	1.8	98.2	0.0	-	88.5	11.5	0.0	-	78.6	21.4	0.0	-	-
Total %	0.2	13.1	0.0	13.3	73.8	9.6	0.0	83.4	2.6	0.7	0.0	3.3	-
PHF	0.250	0.933	0.000	0.891	0.847	0.732	0.000	0.856	0.688	0.375	0.000	0.583	0.905
Lights	1	56	0	57	312	41	0	353	11	3	0	14	424
% Lights	100.0	100.0	-	100.0	99.0	100.0	-	99.2	100.0	100.0	-	100.0	99.3
Other Vehicles	0	0	0	0	3	0	0	3	0	0	0	0	3
% Other Vehicles	0.0	0.0	-	0.0	1.0	0.0	-	0.8	0.0	0.0	-	0.0	0.7

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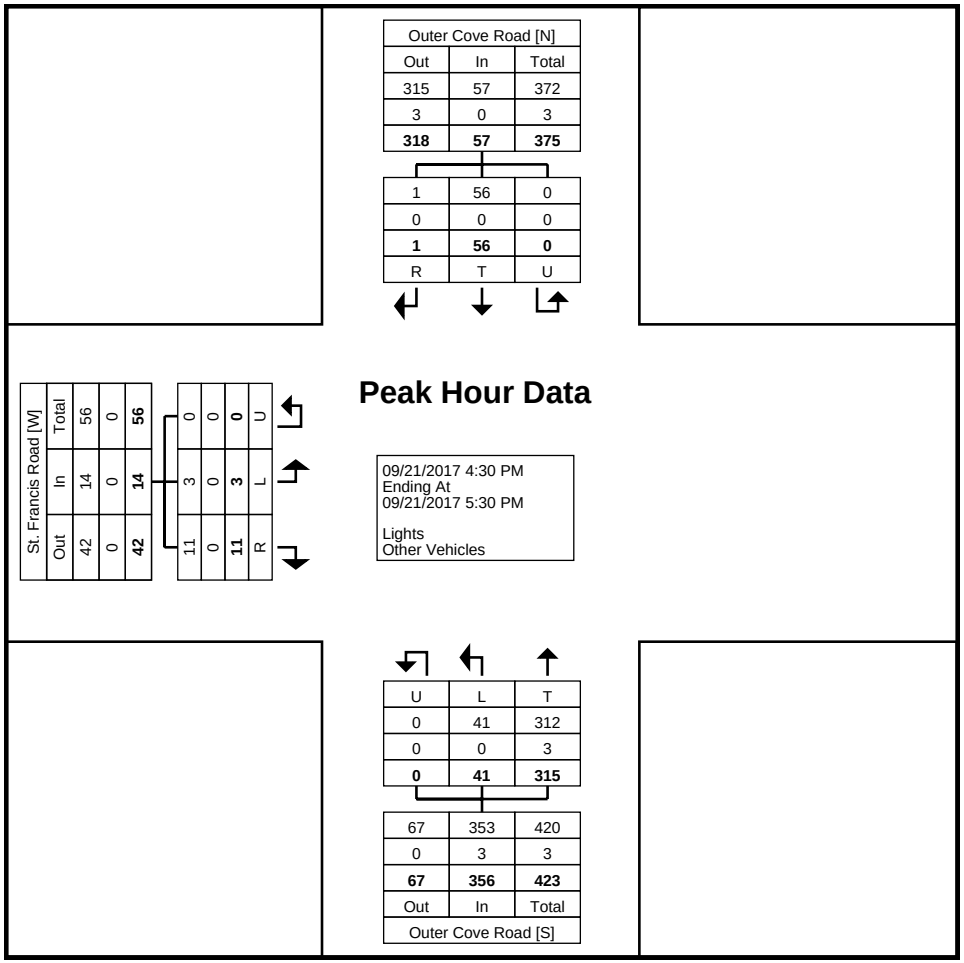
Count Name: Outer Cove Road & St. Francis Road
Site Code:
Start Date: 09/21/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

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8 Rowan Street, Suite 306
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709.579.6435 fallaire@harboursideengineering.ca

Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017

Turning Movement Data

Start Time	Pine Line Westbound				Sandalwood Drive Northbound				Pine Line Eastbound				Int. Total
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	
7:00 AM	1	1	0	2	0	1	0	1	2	2	0	4	7
7:15 AM	2	0	0	2	0	0	1	1	2	2	0	4	7
7:30 AM	1	0	0	1	0	0	0	0	0	3	0	3	4
7:45 AM	2	0	0	2	0	4	0	4	3	10	0	13	19
Hourly Total	6	1	0	7	0	5	1	6	7	17	0	24	37
8:00 AM	2	1	0	3	2	1	0	3	3	10	0	13	19
8:15 AM	3	0	0	3	0	0	0	0	1	7	0	8	11
8:30 AM	4	0	0	4	1	1	0	2	0	3	0	3	9
8:45 AM	1	1	0	2	0	2	0	2	3	5	0	8	12
Hourly Total	10	2	0	12	3	4	0	7	7	25	0	32	51
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	2	2	0	4	0	1	0	1	2	2	0	4	9
11:15 AM	7	0	0	7	0	0	0	0	2	1	0	3	10
11:30 AM	5	0	0	5	0	1	0	1	1	6	0	7	13
11:45 AM	5	1	0	6	0	3	0	3	0	8	0	8	17
Hourly Total	19	3	0	22	0	5	0	5	5	17	0	22	49
12:00 PM	2	0	0	2	2	1	0	3	0	12	0	12	17
12:15 PM	5	1	0	6	0	0	0	0	0	4	0	4	10
12:30 PM	0	0	0	0	0	1	0	1	2	7	0	9	10
12:45 PM	1	1	0	2	2	0	0	2	1	4	0	5	9
Hourly Total	8	2	0	10	4	2	0	6	3	27	0	30	46
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	5	1	0	6	1	3	0	4	1	2	0	3	13
4:15 PM	5	1	0	6	1	1	0	2	1	4	0	5	13
4:30 PM	7	0	0	7	0	1	0	1	0	4	0	4	12
4:45 PM	3	0	0	3	0	2	0	2	5	9	0	14	19
Hourly Total	20	2	0	22	2	7	0	9	7	19	0	26	57
5:00 PM	7	0	0	7	0	0	0	0	4	8	0	12	19
5:15 PM	10	0	0	10	0	2	0	2	2	4	0	6	18
5:30 PM	5	1	0	6	1	6	0	7	1	3	0	4	17
5:45 PM	11	1	0	12	0	3	0	3	1	4	0	5	20
Hourly Total	33	2	0	35	1	11	0	12	8	19	0	27	74
Grand Total	96	12	0	108	10	34	1	45	37	124	0	161	314
Approach %	88.9	11.1	0.0	-	22.2	75.6	2.2	-	23.0	77.0	0.0	-	-
Total %	30.6	3.8	0.0	34.4	3.2	10.8	0.3	14.3	11.8	39.5	0.0	51.3	-
Lights	89	11	0	100	10	34	1	45	36	120	0	156	301
% Lights	92.7	91.7	-	92.6	100.0	100.0	100.0	100.0	97.3	96.8	-	96.9	95.9
Other Vehicles	7	1	0	8	0	0	0	0	1	4	0	5	13

% Other Vehicles	7.3	8.3	-	7.4	0.0	0.0	0.0	0.0	2.7	3.2	-	3.1	4.1

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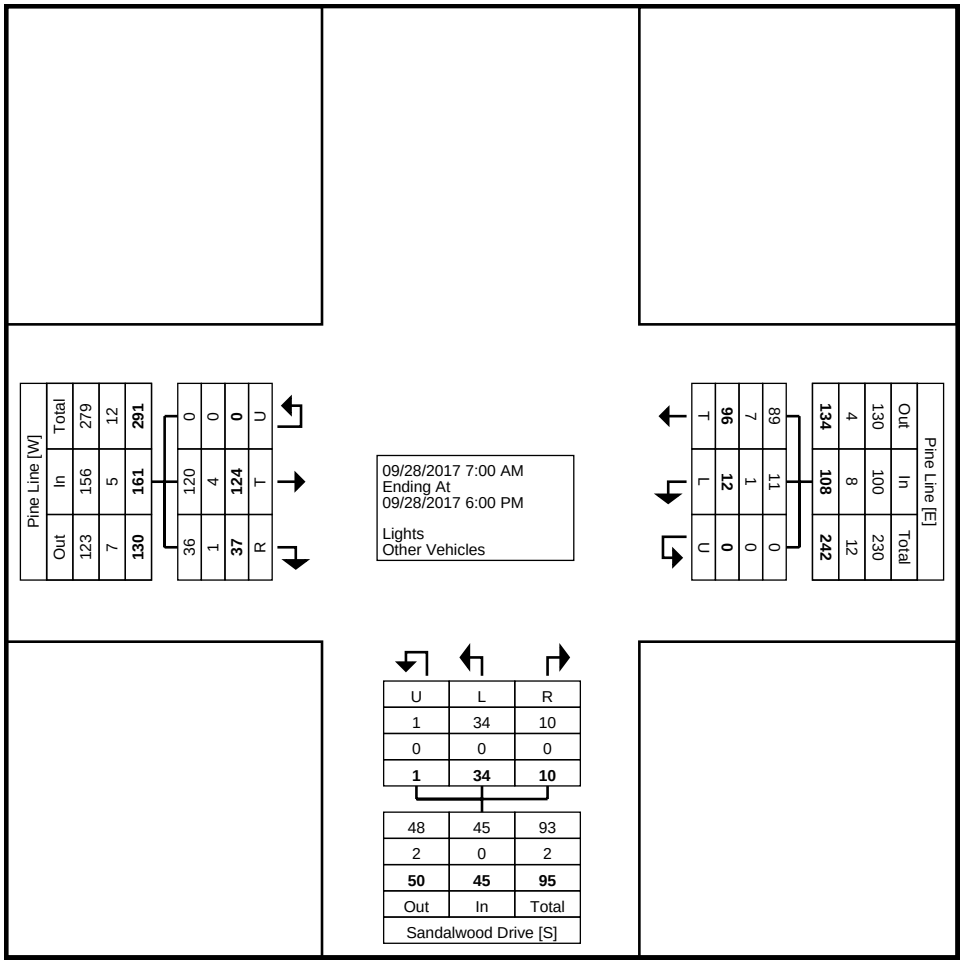
Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017



Turning Movement Data Plot

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Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Pine Line Westbound				Sandalwood Drive Northbound				Pine Line Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
7:45 AM	2	0	0	2	0	4	0	4	3	10	0	13	19
8:00 AM	2	1	0	3	2	1	0	3	3	10	0	13	19
8:15 AM	3	0	0	3	0	0	0	0	1	7	0	8	11
8:30 AM	4	0	0	4	1	1	0	2	0	3	0	3	9
Total	11	1	0	12	3	6	0	9	7	30	0	37	58
Approach %	91.7	8.3	0.0	-	33.3	66.7	0.0	-	18.9	81.1	0.0	-	-
Total %	19.0	1.7	0.0	20.7	5.2	10.3	0.0	15.5	12.1	51.7	0.0	63.8	-
PHF	0.688	0.250	0.000	0.750	0.375	0.375	0.000	0.563	0.583	0.750	0.000	0.712	0.763
Lights	7	1	0	8	3	6	0	9	6	29	0	35	52
% Lights	63.6	100.0	-	66.7	100.0	100.0	-	100.0	85.7	96.7	-	94.6	89.7
Other Vehicles	4	0	0	4	0	0	0	0	1	1	0	2	6
% Other Vehicles	36.4	0.0	-	33.3	0.0	0.0	-	0.0	14.3	3.3	-	5.4	10.3

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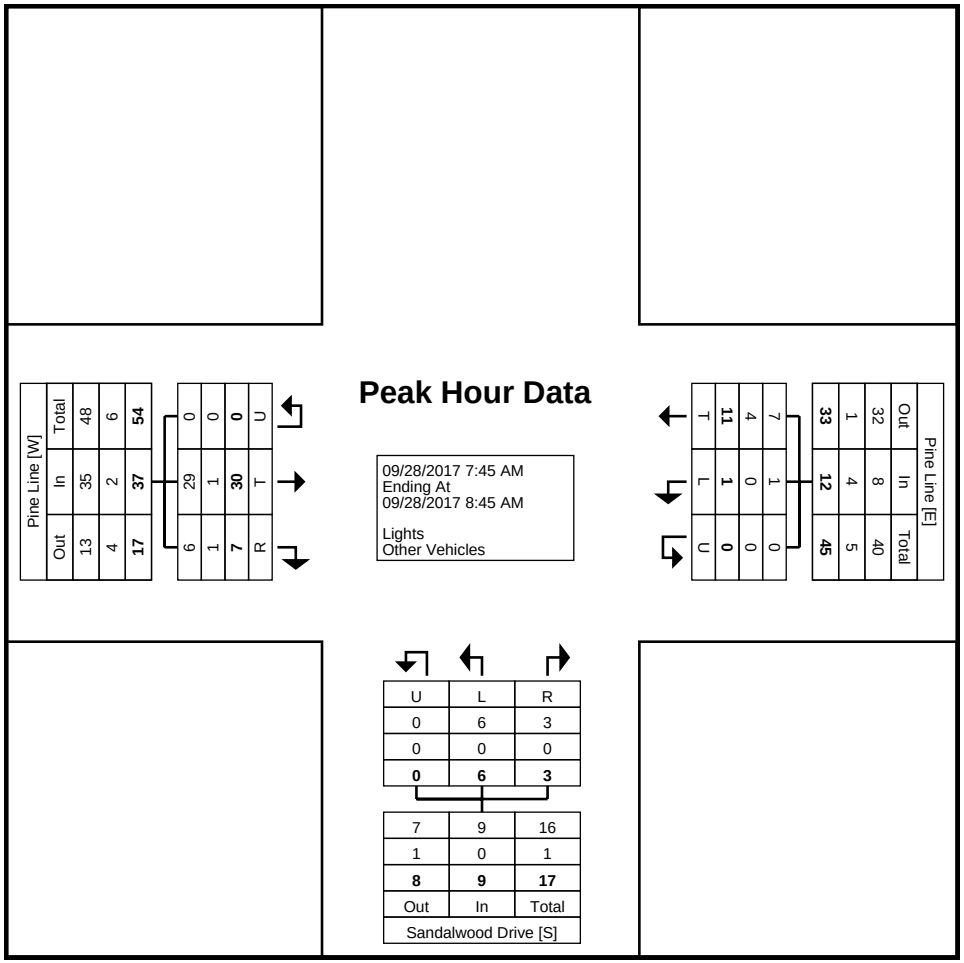
Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017



Turning Movement Peak Hour Data Plot (7:45 AM)

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Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017

Turning Movement Peak Hour Data (11:15 AM)

Start Time	Pine Line Westbound				Sandalwood Drive Northbound				Pine Line Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
11:15 AM	7	0	0	7	0	0	0	0	2	1	0	3	10
11:30 AM	5	0	0	5	0	1	0	1	1	6	0	7	13
11:45 AM	5	1	0	6	0	3	0	3	0	8	0	8	17
12:00 PM	2	0	0	2	2	1	0	3	0	12	0	12	17
Total	19	1	0	20	2	5	0	7	3	27	0	30	57
Approach %	95.0	5.0	0.0	-	28.6	71.4	0.0	-	10.0	90.0	0.0	-	-
Total %	33.3	1.8	0.0	35.1	3.5	8.8	0.0	12.3	5.3	47.4	0.0	52.6	-
PHF	0.679	0.250	0.000	0.714	0.250	0.417	0.000	0.583	0.375	0.563	0.000	0.625	0.838
Lights	17	1	0	18	2	5	0	7	3	25	0	28	53
% Lights	89.5	100.0	-	90.0	100.0	100.0	-	100.0	100.0	92.6	-	93.3	93.0
Other Vehicles	2	0	0	2	0	0	0	0	0	2	0	2	4
% Other Vehicles	10.5	0.0	-	10.0	0.0	0.0	-	0.0	0.0	7.4	-	6.7	7.0

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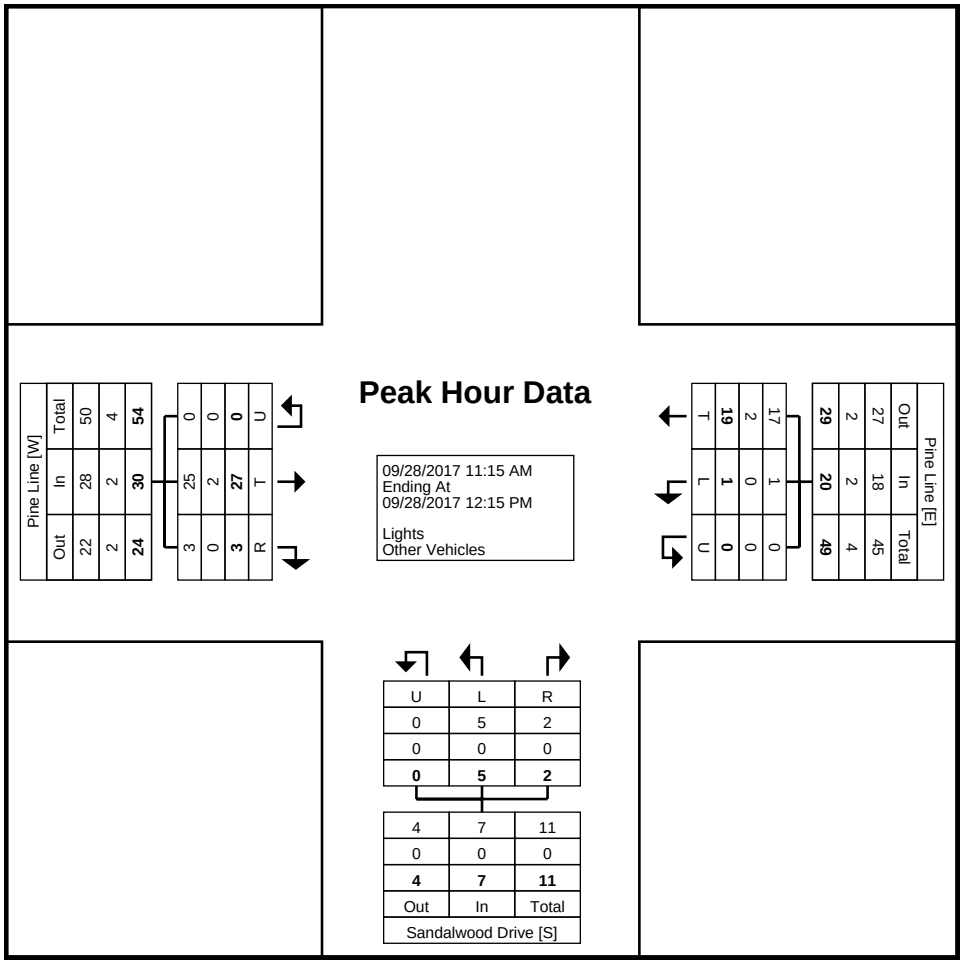

Turning Movement Peak Hour Data Plot (11:15 AM)

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Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Pine Line Westbound				Sandalwood Drive Northbound				Pine Line Eastbound				
	Thru	Left	U-Turn	App. Total	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Int. Total
5:00 PM	7	0	0	7	0	0	0	0	4	8	0	12	19
5:15 PM	10	0	0	10	0	2	0	2	2	4	0	6	18
5:30 PM	5	1	0	6	1	6	0	7	1	3	0	4	17
5:45 PM	11	1	0	12	0	3	0	3	1	4	0	5	20
Total	33	2	0	35	1	11	0	12	8	19	0	27	74
Approach %	94.3	5.7	0.0	-	8.3	91.7	0.0	-	29.6	70.4	0.0	-	-
Total %	44.6	2.7	0.0	47.3	1.4	14.9	0.0	16.2	10.8	25.7	0.0	36.5	-
PHF	0.750	0.500	0.000	0.729	0.250	0.458	0.000	0.429	0.500	0.594	0.000	0.563	0.925
Lights	33	2	0	35	1	11	0	12	8	19	0	27	74
% Lights	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0
Other Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Other Vehicles	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0

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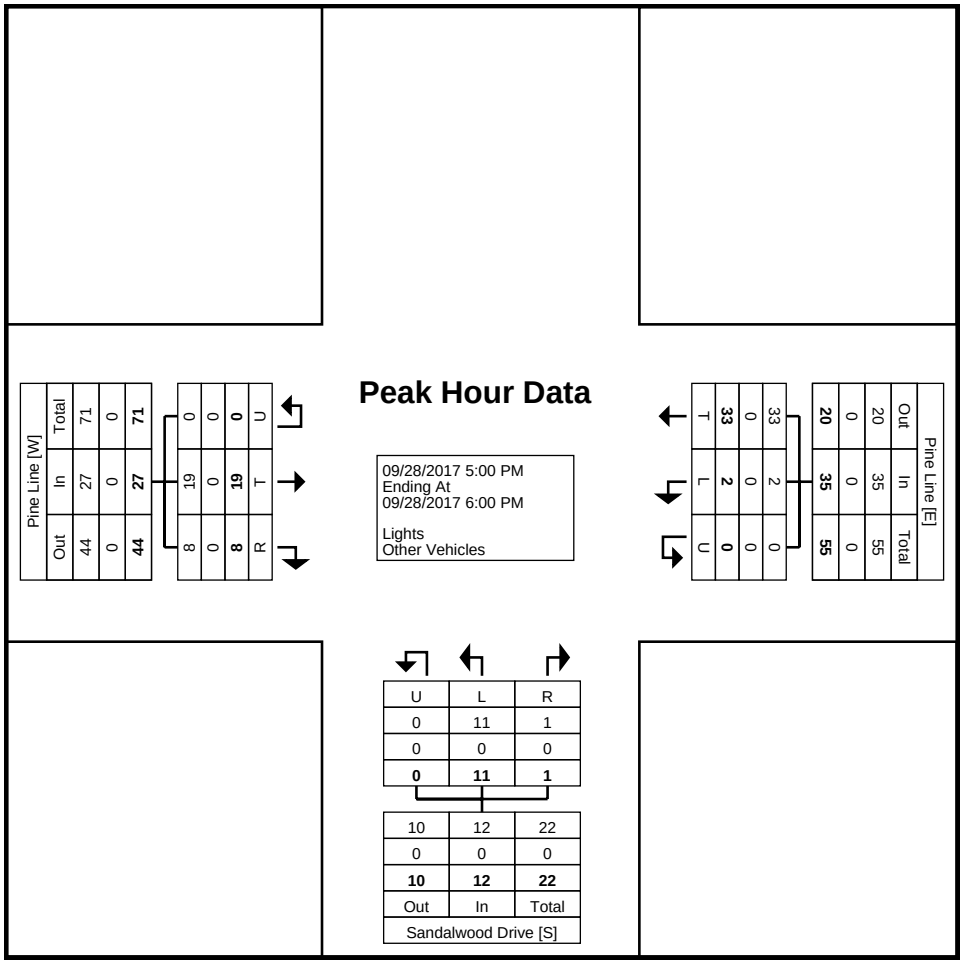
8 Rowan Street, Suite 306
Terrace on the Square
St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Pine Line & Sandalwood Drive
Site Code:
Start Date: 09/28/2017



Turning Movement Peak Hour Data Plot (5:00 PM)

Harbourside Transportation Consultants
8 Rowan Street, Suite 306
Terrace on the Square
St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017

Turning Movement Data

Start Time	Ashkay Drive Southbound				Snow's Lane Westbound				Snow's Lane Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
7:00 AM	0	1	0	1	0	11	0	11	11	1	0	12	24
7:15 AM	0	0	0	0	0	10	0	10	19	0	0	19	29
7:30 AM	0	0	0	0	1	24	0	25	39	0	0	39	64
7:45 AM	3	5	0	8	1	34	0	35	41	2	0	43	86
Hourly Total	3	6	0	9	2	79	0	81	110	3	0	113	203
8:00 AM	3	2	0	5	1	42	0	43	55	1	0	56	104
8:15 AM	0	1	0	1	0	36	0	36	62	1	0	63	100
8:30 AM	4	0	0	4	0	34	0	34	51	2	0	53	91
8:45 AM	0	0	0	0	0	25	0	25	39	1	0	40	65
Hourly Total	7	3	0	10	1	137	0	138	207	5	0	212	360
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
11:00 AM	0	1	0	1	1	34	0	35	35	1	0	36	72
11:15 AM	1	0	0	1	0	40	0	40	32	2	0	34	75
11:30 AM	0	1	0	1	1	36	0	37	42	1	0	43	81
11:45 AM	1	0	0	1	0	41	0	41	48	0	0	48	90
Hourly Total	2	2	0	4	2	151	0	153	157	4	0	161	318
12:00 PM	2	0	0	2	2	66	0	68	50	1	0	51	121
12:15 PM	2	4	0	6	0	46	0	46	51	2	0	53	105
12:30 PM	0	1	0	1	2	34	0	36	55	0	0	55	92
12:45 PM	1	1	0	2	0	55	0	55	48	1	0	49	106
Hourly Total	5	6	0	11	4	201	0	205	204	4	0	208	424
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	2	0	3	0	46	0	46	61	3	0	64	113
4:15 PM	3	0	0	3	1	57	0	58	44	3	0	47	108
4:30 PM	0	2	0	2	0	58	0	58	50	1	0	51	111
4:45 PM	1	0	0	1	0	66	0	66	46	1	0	47	114
Hourly Total	5	4	0	9	1	227	0	228	201	8	0	209	446
5:00 PM	2	3	0	5	1	72	0	73	64	5	0	69	147
5:15 PM	3	1	0	4	3	65	0	68	46	5	0	51	123
5:30 PM	1	0	0	1	0	60	0	60	40	2	0	42	103
5:45 PM	0	0	0	0	0	50	0	50	51	3	0	54	104
Hourly Total	6	4	0	10	4	247	0	251	201	15	0	216	477
Grand Total	28	25	0	53	14	1042	0	1056	1080	39	0	1119	2228
Approach %	52.8	47.2	0.0	-	1.3	98.7	0.0	-	96.5	3.5	0.0	-	-
Total %	1.3	1.1	0.0	2.4	0.6	46.8	0.0	47.4	48.5	1.8	0.0	50.2	-
Lights	27	24	0	51	13	1027	0	1040	1059	38	0	1097	2188
% Lights	96.4	96.0	-	96.2	92.9	98.6	-	98.5	98.1	97.4	-	98.0	98.2
Other Vehicles	1	1	0	2	1	15	0	16	21	1	0	22	40

% Other Vehicles	3.6	4.0	-	3.8	7.1	1.4	-	1.5	1.9	2.6	-	2.0	1.8

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Terrace on the Square
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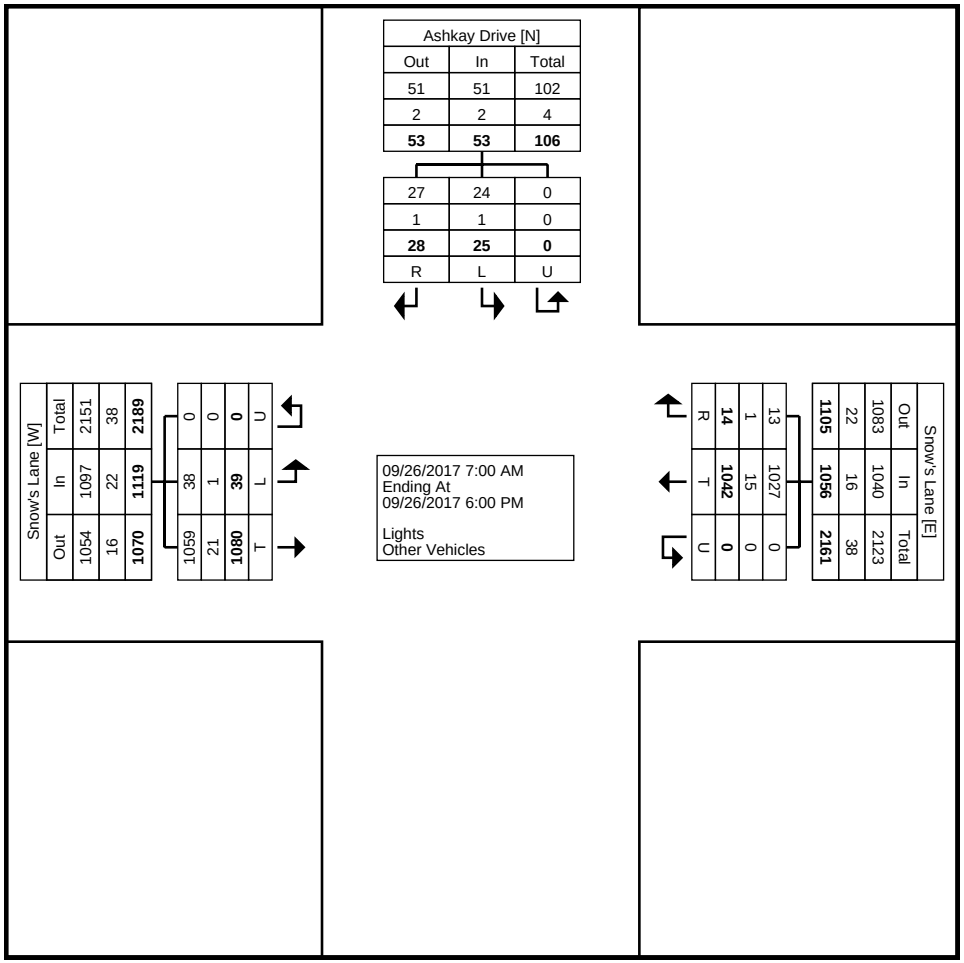
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017



Turning Movement Data Plot

Harbourside Transportation Consultants
8 Rowan Street, Suite 306
Terrace on the Square
St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (7:45 AM)

Start Time	Ashkay Drive Southbound				Snow's Lane Westbound				Snow's Lane Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
7:45 AM	3	5	0	8	1	34	0	35	41	2	0	43	86
8:00 AM	3	2	0	5	1	42	0	43	55	1	0	56	104
8:15 AM	0	1	0	1	0	36	0	36	62	1	0	63	100
8:30 AM	4	0	0	4	0	34	0	34	51	2	0	53	91
Total	10	8	0	18	2	146	0	148	209	6	0	215	381
Approach %	55.6	44.4	0.0	-	1.4	98.6	0.0	-	97.2	2.8	0.0	-	-
Total %	2.6	2.1	0.0	4.7	0.5	38.3	0.0	38.8	54.9	1.6	0.0	56.4	-
PHF	0.625	0.400	0.000	0.563	0.500	0.869	0.000	0.860	0.843	0.750	0.000	0.853	0.916
Lights	9	7	0	16	1	144	0	145	208	5	0	213	374
% Lights	90.0	87.5	-	88.9	50.0	98.6	-	98.0	99.5	83.3	-	99.1	98.2
Other Vehicles	1	1	0	2	1	2	0	3	1	1	0	2	7
% Other Vehicles	10.0	12.5	-	11.1	50.0	1.4	-	2.0	0.5	16.7	-	0.9	1.8

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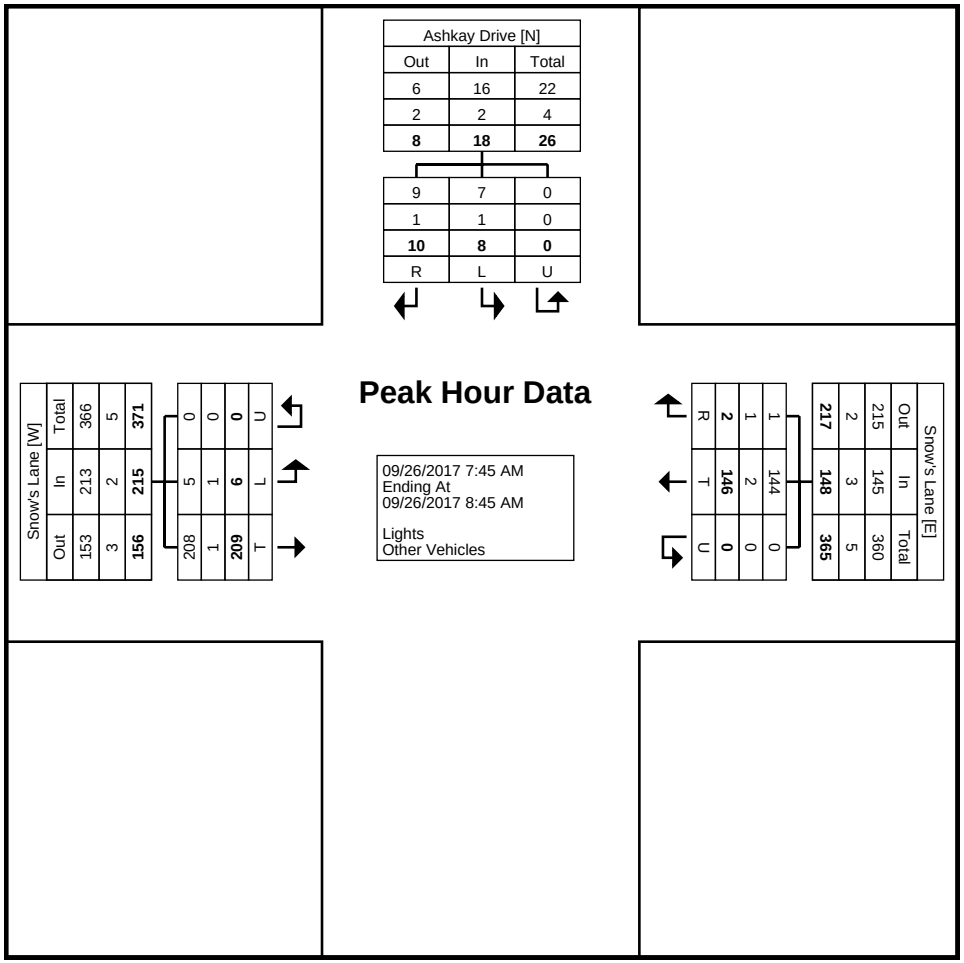
Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017



Turning Movement Peak Hour Data Plot (7:45 AM)

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8 Rowan Street, Suite 306
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Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Ashkay Drive Southbound				Snow's Lane Westbound				Snow's Lane Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
12:00 PM	2	0	0	2	2	66	0	68	50	1	0	51	121
12:15 PM	2	4	0	6	0	46	0	46	51	2	0	53	105
12:30 PM	0	1	0	1	2	34	0	36	55	0	0	55	92
12:45 PM	1	1	0	2	0	55	0	55	48	1	0	49	106
Total	5	6	0	11	4	201	0	205	204	4	0	208	424
Approach %	45.5	54.5	0.0	-	2.0	98.0	0.0	-	98.1	1.9	0.0	-	-
Total %	1.2	1.4	0.0	2.6	0.9	47.4	0.0	48.3	48.1	0.9	0.0	49.1	-
PHF	0.625	0.375	0.000	0.458	0.500	0.761	0.000	0.754	0.927	0.500	0.000	0.945	0.876
Lights	5	6	0	11	4	195	0	199	195	4	0	199	409
% Lights	100.0	100.0	-	100.0	100.0	97.0	-	97.1	95.6	100.0	-	95.7	96.5
Other Vehicles	0	0	0	0	0	6	0	6	9	0	0	9	15
% Other Vehicles	0.0	0.0	-	0.0	0.0	3.0	-	2.9	4.4	0.0	-	4.3	3.5

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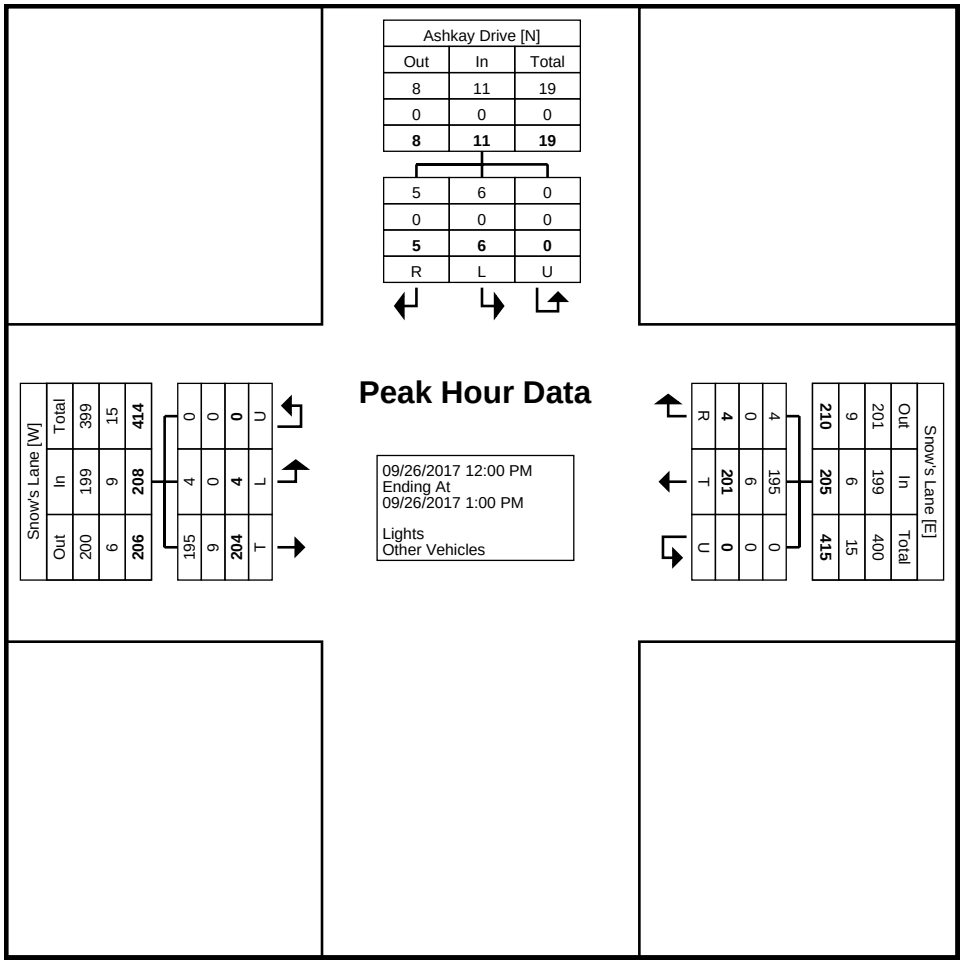
Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017



Turning Movement Peak Hour Data Plot (12:00 PM)

Harbourside Transportation Consultants
8 Rowan Street, Suite 306
Terrace on the Square
St. John's, Newfoundland and Labrador, Canada A1B 2X1
709.579.6435 fallaire@harboursideengineering.ca

Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017

Turning Movement Peak Hour Data (4:30 PM)

Start Time	Ashkay Drive Southbound				Snow's Lane Westbound				Snow's Lane Eastbound				
	Right	Left	U-Turn	App. Total	Right	Thru	U-Turn	App. Total	Thru	Left	U-Turn	App. Total	Int. Total
4:30 PM	0	2	0	2	0	58	0	58	50	1	0	51	111
4:45 PM	1	0	0	1	0	66	0	66	46	1	0	47	114
5:00 PM	2	3	0	5	1	72	0	73	64	5	0	69	147
5:15 PM	3	1	0	4	3	65	0	68	46	5	0	51	123
Total	6	6	0	12	4	261	0	265	206	12	0	218	495
Approach %	50.0	50.0	0.0	-	1.5	98.5	0.0	-	94.5	5.5	0.0	-	-
Total %	1.2	1.2	0.0	2.4	0.8	52.7	0.0	53.5	41.6	2.4	0.0	44.0	-
PHF	0.500	0.500	0.000	0.600	0.333	0.906	0.000	0.908	0.805	0.600	0.000	0.790	0.842
Lights	6	6	0	12	4	261	0	265	206	12	0	218	495
% Lights	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0
Other Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0
% Other Vehicles	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0

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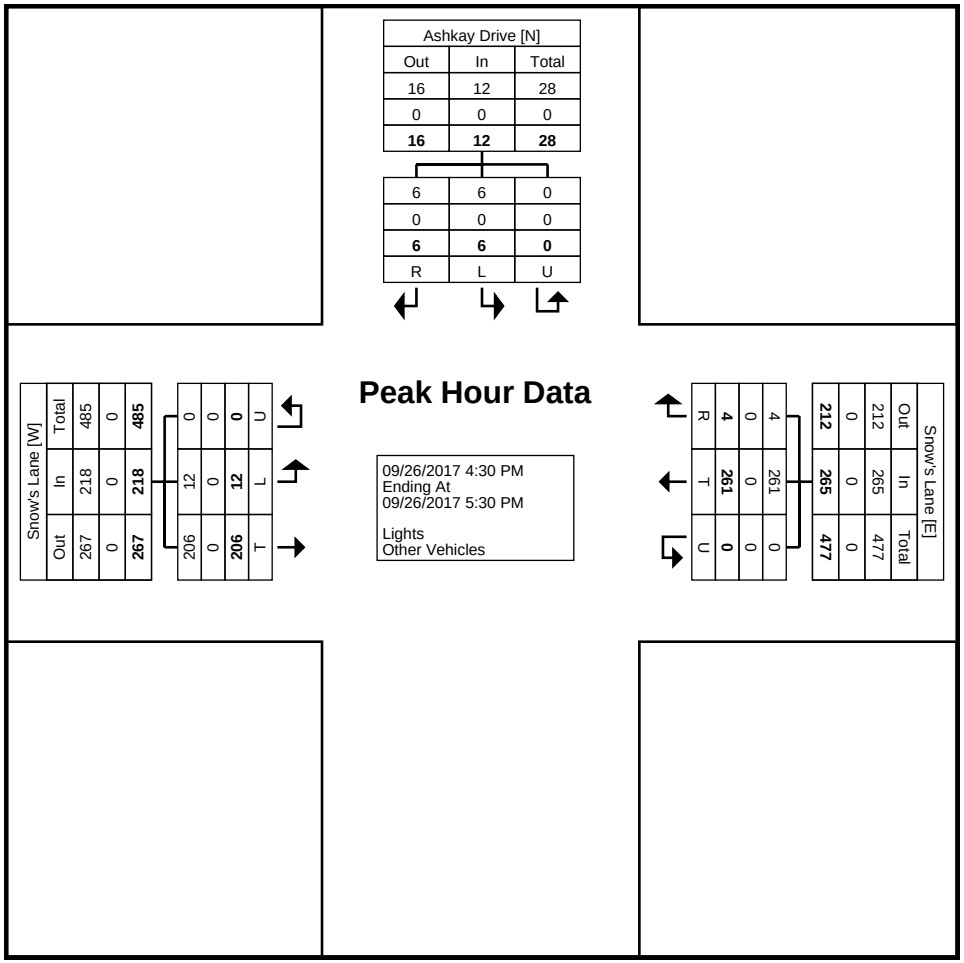
Count Name: Snow's Lane & Ashkay Drive
Site Code:
Start Date: 09/26/2017



Turning Movement Peak Hour Data Plot (4:30 PM)

Appendix B

Link Volume and Speed Counts

Harbourside Transportation Consultants

Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Logy Bay Road, Town Boundary
Near Civic Address 542
Latitude: 47' 36.8891 North
Longitude: 52' 41.3722 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/26/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	28	13	18	2	0	0	0	0	0	0	0	0	0	61
21:00	7	11	7	1	0	0	0	0	0	0	0	0	0	26
22:00	5	3	5	0	0	0	0	0	0	0	0	0	0	13
23:00	2	1	5	2	1	0	0	0	0	0	0	0	0	11
Total	42	28	35	5	1	0	0	0	0	0	0	0	0	111
Percent	37.8%	25.2%	31.5%	4.5%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	15 KPH
50th Percentile :	44 KPH
85th Percentile :	56 KPH
95th Percentile :	60 KPH
Mean Speed(Average) :	40 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	49
Percent in Pace :	44.1%
Number of Vehicles > 50 KPH :	41
Percent of Vehicles > 50 KPH :	36.9%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Logy Bay Road, Town Boundary
Near Civic Address 542
Latitude: 47' 36.8891 North
Longitude: 52' 41.3722 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:00	1	3	1	0	0	0	0	0	0	0	0	0	0	5
02:00	1	2	2	0	0	0	0	0	0	0	0	0	0	5
03:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
04:00	2	4	1	2	0	0	0	0	0	0	0	0	0	9
05:00	2	4	3	2	1	0	0	0	0	0	0	0	0	12
06:00	10	15	27	6	0	0	0	0	0	0	0	0	0	58
07:00	62	87	118	14	1	0	0	0	0	0	0	0	0	282
08:00	47	71	91	15	0	0	0	0	0	0	0	0	0	224
09:00	32	43	44	5	1	1	0	0	0	0	0	0	0	126
10:00	30	32	39	5	1	0	0	0	0	0	0	0	0	107
11:00	53	48	42	8	0	0	0	0	0	0	0	0	0	151
12 PM	55	60	45	2	2	0	0	0	0	0	0	0	0	164
13:00	42	50	39	6	0	0	0	0	0	0	0	0	0	137
14:00	41	63	48	6	0	0	0	0	0	0	0	0	0	158
15:00	31	40	51	7	2	0	0	0	0	0	0	0	0	131
16:00	40	55	48	6	0	0	0	0	0	0	0	0	0	149
17:00	25	45	77	10	0	0	0	0	0	0	0	0	0	157
18:00	51	50	35	3	0	0	0	0	0	0	0	0	0	139
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	526	672	713	97	8	1	0	0	0	0	0	0	0	2017
Percent	26.1%	33.3%	35.3%	4.8%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	23 KPH
50th Percentile :	47 KPH
85th Percentile :	57 KPH
95th Percentile :	60 KPH
Mean Speed(Average) :	44 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	1049
Percent in Pace :	52.0%
Number of Vehicles > 50 KPH :	819
Percent of Vehicles > 50 KPH :	40.6%

Grand Total	568	700	748	102	9	1	0	0	0	0	0	0	0	2128

Overall

15th Percentile :	22 KPH
50th Percentile :	47 KPH
85th Percentile :	57 KPH
95th Percentile :	60 KPH
Mean Speed(Average) :	43 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	1098
Percent in Pace :	51.6%
Number of Vehicles > 50 KPH :	860
Percent of Vehicles > 50 KPH :	40.4%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Logy Bay Road, Town Boundary
Near Civic Address 542
Latitude: 47' 36.8891 North
Longitude: 52' 41.3722 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/26/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	4	34	38	12	0	0	0	0	0	0	0	0	0	88
21:00	5	17	41	7	1	1	1	0	0	0	0	0	0	73
22:00	2	6	20	4	1	0	0	0	0	0	0	0	0	33
23:00	0	5	8	3	0	0	0	0	0	0	0	0	0	16
Total	11	62	107	26	2	1	1	0	0	0	0	0	0	210
Percent	5.2%	29.5%	51.0%	12.4%	1.0%	0.5%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	52 KPH
85th Percentile :	59 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	138
Percent in Pace :	65.7%
Number of Vehicles > 50 KPH :	137
Percent of Vehicles > 50 KPH :	65.2%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Logy Bay Road, Town Boundary
Near Civic Address 542
Latitude: 47' 36.8891 North
Longitude: 52' 41.3722 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	0	3	1	2	1	0	0	0	0	0	0	0	0	7
01:00	0	2	0	1	0	0	0	0	0	0	0	0	0	3
02:00	0	1	2	1	0	0	0	0	0	0	0	0	0	4
03:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:00	2	0	4	0	0	0	0	0	0	0	0	0	0	6
06:00	2	3	15	7	0	0	0	0	0	0	0	0	0	27
07:00	2	30	55	15	0	0	0	0	0	0	0	0	0	102
08:00	7	41	74	14	1	0	0	0	0	0	0	0	0	137
09:00	4	29	55	8	0	0	0	0	0	0	0	0	0	96
10:00	6	29	56	18	2	0	0	0	0	0	0	0	0	111
11:00	15	43	85	21	0	0	0	0	0	0	0	0	0	164
12 PM	20	47	89	20	1	0	0	0	0	0	0	0	0	177
13:00	9	49	81	22	2	0	0	0	0	0	0	0	0	163
14:00	5	47	80	27	0	1	0	0	0	0	0	0	0	160
15:00	7	54	136	41	4	0	0	0	0	0	0	0	0	242
16:00	15	83	213	64	1	0	0	0	0	0	0	0	0	376
17:00	12	54	137	57	3	1	0	0	0	0	0	0	0	264
18:00	5	42	98	22	2	0	0	0	0	0	0	0	0	169
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	111	557	1183	341	17	2	0	0	0	0	0	0	0	2211
Percent	5.0%	25.2%	53.5%	15.4%	0.8%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	53 KPH
85th Percentile :	60 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	1462
Percent in Pace :	66.1%
Number of Vehicles > 50 KPH :	1543
Percent of Vehicles > 50 KPH :	69.8%

Grand Total	122	619	1290	367	19	3	1	0	0	0	0	0	0	2421

Overall

15th Percentile :	43 KPH
50th Percentile :	53 KPH
85th Percentile :	60 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	1599
Percent in Pace :	66.0%
Number of Vehicles > 50 KPH :	1680
Percent of Vehicles > 50 KPH :	69.4%

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T 709.579.6435 | **F** 709.579.7515

Logy Bay Road, Town Boundary
Near Civic Address 542
Latitude: 47' 36.8891 North
Longitude: 52' 41.3722 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/26/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	32	47	56	14	0	0	0	0	0	0	0	0	0	149
21:00	12	28	48	8	1	1	1	0	0	0	0	0	0	99
22:00	7	9	25	4	1	0	0	0	0	0	0	0	0	46
23:00	2	6	13	5	1	0	0	0	0	0	0	0	0	27
Total	53	90	142	31	3	1	1	0	0	0	0	0	0	321
Percent	16.5%	28.0%	44.2%	9.7%	0.9%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	36 KPH
50th Percentile :	51 KPH
85th Percentile :	59 KPH
95th Percentile :	66 KPH
Mean Speed(Average) :	48 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	187
Percent in Pace :	58.3%
Number of Vehicles > 50 KPH :	178
Percent of Vehicles > 50 KPH :	55.5%

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Logy Bay Road, Town Boundary
Near Civic Address 542
Latitude: 47' 36.8891 North
Longitude: 52' 41.3722 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	0	3	3	2	1	0	0	0	0	0	0	0	0	9
01:00	1	5	1	1	0	0	0	0	0	0	0	0	0	8
02:00	1	3	4	1	0	0	0	0	0	0	0	0	0	9
03:00	1	0	2	0	0	0	0	0	0	0	0	0	0	3
04:00	2	4	1	3	0	0	0	0	0	0	0	0	0	10
05:00	4	4	7	2	1	0	0	0	0	0	0	0	0	18
06:00	12	18	42	13	0	0	0	0	0	0	0	0	0	85
07:00	64	117	173	29	1	0	0	0	0	0	0	0	0	384
08:00	54	112	165	29	1	0	0	0	0	0	0	0	0	361
09:00	36	72	99	13	1	1	0	0	0	0	0	0	0	222
10:00	36	61	95	23	3	0	0	0	0	0	0	0	0	218
11:00	68	91	127	29	0	0	0	0	0	0	0	0	0	315
12 PM	75	107	134	22	3	0	0	0	0	0	0	0	0	341
13:00	51	99	120	28	2	0	0	0	0	0	0	0	0	300
14:00	46	110	128	33	0	1	0	0	0	0	0	0	0	318
15:00	38	94	187	48	6	0	0	0	0	0	0	0	0	373
16:00	55	138	261	70	1	0	0	0	0	0	0	0	0	525
17:00	37	99	214	67	3	1	0	0	0	0	0	0	0	421
18:00	56	92	133	25	2	0	0	0	0	0	0	0	0	308
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	637	1229	1896	438	25	3	0	0	0	0	0	0	0	4228
Percent	15.1%	29.1%	44.8%	10.4%	0.6%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	39 KPH
50th Percentile :	51 KPH
85th Percentile :	59 KPH
95th Percentile :	65 KPH
Mean Speed(Average) :	48 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	2511
Percent in Pace :	59.4%
Number of Vehicles > 50 KPH :	2362
Percent of Vehicles > 50 KPH :	55.9%

Grand Total	690	1319	2038	469	28	4	1	0	0	0	0	0	0	4549

Overall

15th Percentile :	39 KPH
50th Percentile :	51 KPH
85th Percentile :	59 KPH
95th Percentile :	65 KPH
Mean Speed(Average) :	48 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	2698
Percent in Pace :	59.3%
Number of Vehicles > 50 KPH :	2540
Percent of Vehicles > 50 KPH :	55.8%

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T 709.579.6435 | **F** 709.579.7515

Logy Bay Road, Town Boundary
Near 483 Civic Address
Latitude: 47' 36.8836 North
Longitude: 52' 41.3739 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Start Time	26-Sep-17 Tue	Northbound	Southbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		61	88	149
09:00		26	73	99
10:00		13	33	46
11:00		11	16	27
Total		111	210	
Percent		34.6%	65.4%	

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Logy Bay Road, Town Boundary
Near 483 Civic Address
Latitude: 47' 36.8836 North
Longitude: 52' 41.3739 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Start Time	27-Sep-17 Wed	Northbound	Southbound	Combined Total
12:00 AM		2	7	9
01:00		5	3	8
02:00		5	4	9
03:00		1	2	3
04:00		9	1	10
05:00		12	6	18
06:00		58	27	85
07:00		282	102	384
08:00		224	137	361
09:00		126	96	222
10:00		107	111	218
11:00		151	164	315
12:00 PM		164	177	341
01:00		137	163	300
02:00		158	160	318
03:00		131	242	373
04:00		149	376	525
05:00		157	264	421
06:00		139	169	308
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		2017	2211	
Percent		47.7%	52.3%	
Grand Total		2128	2421	
Percentage		46.8%	53.2%	
ADT		ADT 4,741		AADT 4,741

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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	1	13	73	38	0	1	0	0	0	0	0	0	0	126
20:00	1	11	34	31	8	0	0	0	0	0	0	0	0	85
21:00	0	8	47	11	4	2	0	0	0	0	0	0	0	72
22:00	2	8	21	13	0	0	0	0	0	0	0	0	0	44
23:00	0	1	6	6	6	0	1	0	0	0	0	0	0	20
Total	4	41	181	99	18	3	1	0	0	0	0	0	0	347
Percent	1.2%	11.8%	52.2%	28.5%	5.2%	0.9%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	57 KPH
85th Percentile :	66 KPH
95th Percentile :	72 KPH
Mean Speed(Average) :	58 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	231
Percent in Pace :	66.6%
Number of Vehicles > 50 KPH :	302
Percent of Vehicles > 50 KPH :	87.0%

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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/05/17	0	1	5	4	0	0	0	0	0	0	0	0	0	10
01:00	0	1	2	1	1	0	0	0	0	0	0	0	0	5
02:00	0	0	2	1	0	0	0	0	0	0	0	0	0	3
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	1	2	2	1	0	0	0	0	0	0	0	0	6
05:00	0	0	1	3	0	1	0	0	0	0	0	0	0	5
06:00	0	1	4	7	3	1	0	0	0	0	0	0	0	16
07:00	1	7	35	33	3	1	0	0	0	0	0	0	0	80
08:00	3	9	47	42	10	1	0	0	0	0	0	0	0	112
09:00	2	3	57	40	3	0	0	0	0	0	0	0	0	105
10:00	5	11	48	49	6	1	0	0	0	0	0	0	0	120
11:00	3	3	65	45	10	2	0	0	0	0	0	0	0	128
12 PM	0	10	110	72	7	0	0	0	0	0	0	0	0	199
13:00	1	10	66	61	8	1	0	0	0	0	0	0	0	147
14:00	2	16	97	43	17	1	1	0	0	0	0	0	0	177
15:00	11	28	108	78	15	0	0	0	0	0	0	0	0	240
16:00	4	23	282	166	18	0	0	0	0	0	0	0	0	493
17:00	6	22	260	207	27	1	0	0	0	0	0	0	0	523
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	38	146	1192	854	129	10	1	0	0	0	0	0	0	2370
Percent	1.6%	6.2%	50.3%	36.0%	5.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	51 KPH
50th Percentile :	58 KPH
85th Percentile :	67 KPH
95th Percentile :	71 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	1619
Percent in Pace :	68.3%
Number of Vehicles > 50 KPH :	2186
Percent of Vehicles > 50 KPH :	92.2%

Grand Total	42	187	1373	953	147	13	2	0	0	0	0	0	0	2717

Overall

15th Percentile :	51 KPH
50th Percentile :	58 KPH
85th Percentile :	67 KPH
95th Percentile :	71 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	1850
Percent in Pace :	68.1%
Number of Vehicles > 50 KPH :	2488
Percent of Vehicles > 50 KPH :	91.6%

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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	0	10	21	17	0	0	0	0	0	0	0	0	0	48
20:00	0	6	17	9	2	0	0	0	0	0	0	0	0	34
21:00	0	0	8	5	0	0	0	0	0	0	0	0	0	13
22:00	0	2	4	2	0	0	0	0	0	0	0	0	0	8
23:00	0	0	7	1	1	0	0	0	0	0	0	0	0	9
Total	0	18	57	34	3	0	0	0	0	0	0	0	0	112
Percent	0.0%	16.1%	50.9%	30.4%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	49 KPH
50th Percentile :	56 KPH
85th Percentile :	65 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	57 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	74
Percent in Pace :	66.1%
Number of Vehicles > 50 KPH :	94
Percent of Vehicles > 50 KPH :	83.9%

Harbourside Transportation Consultants
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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/05/17	0	0	0	1	0	0	0	0	0	0	0	0	0	1
01:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
05:00	0	1	2	1	1	1	0	0	0	0	0	0	0	6
06:00	0	2	7	7	4	0	0	0	0	0	0	0	0	20
07:00	0	7	60	52	7	1	0	0	0	0	0	0	0	127
08:00	4	5	99	88	7	0	0	0	0	0	0	0	0	203
09:00	0	1	30	24	8	2	1	0	0	0	0	0	0	66
10:00	3	5	27	31	5	0	0	0	0	0	0	0	0	71
11:00	2	9	43	27	3	1	0	0	0	0	0	0	0	85
12 PM	3	9	36	30	6	0	0	0	0	0	0	0	0	84
13:00	3	11	31	25	4	0	0	0	0	0	0	0	0	74
14:00	2	17	56	50	7	0	0	0	0	0	0	0	0	132
15:00	1	7	33	30	5	0	0	0	0	0	0	0	0	76
16:00	4	7	22	29	2	1	0	0	0	0	0	0	0	65
17:00	6	5	22	31	6	2	0	0	0	0	0	0	0	72
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	28	86	470	431	65	8	1	0	0	0	0	0	0	1089
Percent	2.6%	7.9%	43.2%	39.6%	6.0%	0.7%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	51 KPH
50th Percentile :	59 KPH
85th Percentile :	67 KPH
95th Percentile :	73 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	685
Percent in Pace :	62.9%
Number of Vehicles > 50 KPH :	975
Percent of Vehicles > 50 KPH :	89.5%

Grand Total	28	104	527	465	68	8	1	0	0	0	0	0	0	1201

Overall

15th Percentile :	50 KPH
50th Percentile :	58 KPH
85th Percentile :	67 KPH
95th Percentile :	72 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	759
Percent in Pace :	63.2%
Number of Vehicles > 50 KPH :	1069
Percent of Vehicles > 50 KPH :	89.0%

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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	1	23	94	55	0	1	0	0	0	0	0	0	0	174
20:00	1	17	51	40	10	0	0	0	0	0	0	0	0	119
21:00	0	8	55	16	4	2	0	0	0	0	0	0	0	85
22:00	2	10	25	15	0	0	0	0	0	0	0	0	0	52
23:00	0	1	13	7	7	0	1	0	0	0	0	0	0	29
Total	4	59	238	133	21	3	1	0	0	0	0	0	0	459
Percent	0.9%	12.9%	51.9%	29.0%	4.6%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	56 KPH
85th Percentile :	66 KPH
95th Percentile :	70 KPH
Mean Speed(Average) :	58 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	304
Percent in Pace :	66.2%
Number of Vehicles > 50 KPH :	396
Percent of Vehicles > 50 KPH :	86.3%

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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/05/17	0	1	5	5	0	0	0	0	0	0	0	0	0	11
01:00	0	1	3	2	1	0	0	0	0	0	0	0	0	7
02:00	0	0	3	1	0	0	0	0	0	0	0	0	0	4
03:00	0	0	1	2	0	0	0	0	0	0	0	0	0	3
04:00	0	1	2	4	1	0	0	0	0	0	0	0	0	8
05:00	0	1	3	4	1	2	0	0	0	0	0	0	0	11
06:00	0	3	11	14	7	1	0	0	0	0	0	0	0	36
07:00	1	14	95	85	10	2	0	0	0	0	0	0	0	207
08:00	7	14	146	130	17	1	0	0	0	0	0	0	0	315
09:00	2	4	87	64	11	2	1	0	0	0	0	0	0	171
10:00	8	16	75	80	11	1	0	0	0	0	0	0	0	191
11:00	5	12	108	72	13	3	0	0	0	0	0	0	0	213
12 PM	3	19	146	102	13	0	0	0	0	0	0	0	0	283
13:00	4	21	97	86	12	1	0	0	0	0	0	0	0	221
14:00	4	33	153	93	24	1	1	0	0	0	0	0	0	309
15:00	12	35	141	108	20	0	0	0	0	0	0	0	0	316
16:00	8	30	304	195	20	1	0	0	0	0	0	0	0	558
17:00	12	27	282	238	33	3	0	0	0	0	0	0	0	595
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	66	232	1662	1285	194	18	2	0	0	0	0	0	0	3459
Percent	1.9%	6.7%	48.0%	37.1%	5.6%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	51 KPH
50th Percentile :	58 KPH
85th Percentile :	67 KPH
95th Percentile :	72 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	2305
Percent in Pace :	66.6%
Number of Vehicles > 50 KPH :	3161
Percent of Vehicles > 50 KPH :	91.4%

Grand Total	70	291	1900	1418	215	21	3	0	0	0	0	0	0	3918

Overall

15th Percentile :	51 KPH
50th Percentile :	58 KPH
85th Percentile :	67 KPH
95th Percentile :	72 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	2609
Percent in Pace :	66.6%
Number of Vehicles > 50 KPH :	3557
Percent of Vehicles > 50 KPH :	90.8%

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Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Start Time	04-Oct-17 Wed	Northbound	Southbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		126	48	174
08:00		85	34	119
09:00		72	13	85
10:00		44	8	52
11:00		20	9	29
Total		347	112	
Percent		75.6%	24.4%	

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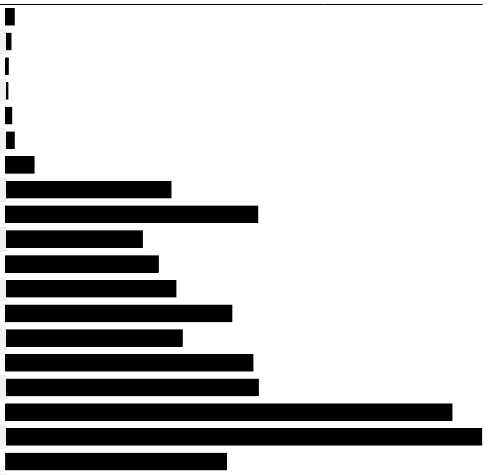
Logy Bay Road
Town Council, 744 Logy Bay Road
Latitude: 47' 37.7473 North
Longitude: 52' 41.4064 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Start Time	05-Oct-17 Thu	Northbound	Southbound	Combined Total
12:00 AM		10	1	11
01:00		5	2	7
02:00		3	1	4
03:00		1	2	3
04:00		6	2	8
05:00		5	6	11
06:00		16	20	36
07:00		80	127	207
08:00		112	203	315
09:00		105	66	171
10:00		120	71	191
11:00		128	85	213
12:00 PM		199	84	283
01:00		147	74	221
02:00		177	132	309
03:00		240	76	316
04:00		493	65	558
05:00		523	72	595
06:00		196	80	276
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		2566	1169	
Percent		68.7%	31.3%	
Grand Total		2913	1281	
Percentage		69.5%	30.5%	
ADT		ADT 4,194		AADT 4,194



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Lower Road
Near Civic Address 59
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	2	4	6	2	1	0	0	0	0	0	0	0	0	15
21:00	0	2	2	3	0	0	0	0	0	0	0	0	0	7
22:00	0	5	0	1	0	0	0	0	0	0	0	0	0	6
23:00	0	0	4	0	0	0	0	0	0	0	0	0	0	4
Total	2	11	12	6	1	0	0	0	0	0	0	0	0	32
Percent	6.3%	34.4%	37.5%	18.8%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	52 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	17
Percent in Pace :	53.1%
Number of Vehicles > 50 KPH :	19
Percent of Vehicles > 50 KPH :	59.4%

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Lower Road
Near Civic Address 59
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/28/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	2	1	0	0	0	0	0	0	0	0	0	3
07:00	1	0	5	0	0	0	0	0	0	0	0	0	0	6
08:00	0	2	6	3	1	0	0	0	0	0	0	0	0	12
09:00	0	2	3	3	1	0	0	0	0	0	0	0	0	9
10:00	0	0	5	4	0	0	0	0	0	0	0	0	0	9
11:00	0	1	4	4	1	0	0	0	0	0	0	0	0	10
12 PM	0	1	10	5	0	0	0	0	0	0	0	0	0	16
13:00	1	3	6	2	0	0	0	0	0	0	0	0	0	12
14:00	0	3	4	4	1	0	0	0	0	0	0	0	0	12
15:00	2	1	8	8	0	0	0	0	0	0	0	0	0	19
16:00	0	2	10	7	1	0	0	0	0	0	0	0	0	20
17:00	0	2	19	6	1	0	0	0	0	0	0	0	0	28
18:00	0	3	8	1	1	0	0	0	0	0	0	0	0	13
19:00	0	2	7	3	0	0	0	0	0	0	0	0	0	12
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	4	23	99	52	7	0	0	0	0	0	0	0	0	185
Percent	2.2%	12.4%	53.5%	28.1%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	56 KPH
85th Percentile :	66 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	57 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	125
Percent in Pace :	67.6%
Number of Vehicles > 50 KPH :	158
Percent of Vehicles > 50 KPH :	85.4%

Grand Total	6	34	111	58	8	0	0	0	0	0	0	0	0	217

Overall

15th Percentile :	47 KPH
50th Percentile :	56 KPH
85th Percentile :	65 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	56 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	140
Percent in Pace :	64.5%
Number of Vehicles > 50 KPH :	177
Percent of Vehicles > 50 KPH :	81.6%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Lower Road
Near Civic Address 59
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	1	5	5	3	0	0	0	0	0	0	0	0	0	14
21:00	0	3	1	2	0	0	0	0	0	0	0	0	0	6
22:00	0	0	3	2	0	0	0	0	0	0	0	0	0	5
23:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
Total	1	9	11	7	0	0	0	0	0	0	0	0	0	28
Percent	3.6%	32.1%	39.3%	25.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	53 KPH
85th Percentile :	63 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	48-62 KPH
Number in Pace :	15
Percent in Pace :	53.6%
Number of Vehicles > 50 KPH :	18
Percent of Vehicles > 50 KPH :	64.3%

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Lower Road
Near Civic Address 59
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/28/17	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	1	1	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
07:00	2	4	14	7	1	0	0	0	0	0	0	0	0	28
08:00	3	6	12	16	0	0	0	0	0	0	0	0	0	37
09:00	3	0	8	7	0	0	0	0	0	0	0	0	0	18
10:00	2	7	8	5	0	0	0	0	0	0	0	0	0	22
11:00	1	2	7	4	0	0	0	0	0	0	0	0	0	14
12 PM	0	2	10	3	1	0	0	0	0	0	0	0	0	16
13:00	1	7	9	4	0	0	0	0	0	0	0	0	0	21
14:00	0	4	8	7	1	0	0	0	0	0	0	0	0	20
15:00	1	2	15	3	0	0	0	0	0	0	0	0	0	21
16:00	0	4	8	5	1	0	0	0	0	0	0	0	0	18
17:00	0	3	4	8	1	0	0	0	0	0	0	0	0	16
18:00	2	3	7	5	0	0	0	0	0	0	0	0	0	17
19:00	1	4	5	0	0	0	0	0	0	0	0	0	0	10
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	16	49	122	75	6	0	0	0	0	0	0	0	0	268
Percent	6.0%	18.3%	45.5%	28.0%	2.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	44 KPH
50th Percentile :	55 KPH
85th Percentile :	65 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	55 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	159
Percent in Pace :	59.3%
Number of Vehicles > 50 KPH :	203
Percent of Vehicles > 50 KPH :	75.7%

Grand Total	17	58	133	82	6	0	0	0	0	0	0	0	0	296

Overall

15th Percentile :	44 KPH
50th Percentile :	55 KPH
85th Percentile :	65 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	55 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	174
Percent in Pace :	58.8%
Number of Vehicles > 50 KPH :	221
Percent of Vehicles > 50 KPH :	74.7%

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Lower Road
Near Civic Address 59
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	3	9	11	5	1	0	0	0	0	0	0	0	0	29
21:00	0	5	3	5	0	0	0	0	0	0	0	0	0	13
22:00	0	5	3	3	0	0	0	0	0	0	0	0	0	11
23:00	0	1	6	0	0	0	0	0	0	0	0	0	0	7
Total	3	20	23	13	1	0	0	0	0	0	0	0	0	60
Percent	5.0%	33.3%	38.3%	21.7%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	63 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	33
Percent in Pace :	55.0%
Number of Vehicles > 50 KPH :	37
Percent of Vehicles > 50 KPH :	61.7%

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Lower Road
Near Civic Address 59
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/28/17	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	2	0	0	0	0	0	0	0	0	0	0	3
02:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	0	1	1	1	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	4	1	1	0	0	0	0	0	0	0	0	6
07:00	3	4	19	7	1	0	0	0	0	0	0	0	0	34
08:00	3	8	18	19	1	0	0	0	0	0	0	0	0	49
09:00	3	2	11	10	1	0	0	0	0	0	0	0	0	27
10:00	2	7	13	9	0	0	0	0	0	0	0	0	0	31
11:00	1	3	11	8	1	0	0	0	0	0	0	0	0	24
12 PM	0	3	20	8	1	0	0	0	0	0	0	0	0	32
13:00	2	10	15	6	0	0	0	0	0	0	0	0	0	33
14:00	0	7	12	11	2	0	0	0	0	0	0	0	0	32
15:00	3	3	23	11	0	0	0	0	0	0	0	0	0	40
16:00	0	6	18	12	2	0	0	0	0	0	0	0	0	38
17:00	0	5	23	14	2	0	0	0	0	0	0	0	0	44
18:00	2	6	15	6	1	0	0	0	0	0	0	0	0	30
19:00	1	6	12	3	0	0	0	0	0	0	0	0	0	22
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	20	72	221	127	13	0	0	0	0	0	0	0	0	453
Percent	4.4%	15.9%	48.8%	28.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	46 KPH
50th Percentile :	56 KPH
85th Percentile :	65 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	56 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	285
Percent in Pace :	62.9%
Number of Vehicles > 50 KPH :	361
Percent of Vehicles > 50 KPH :	79.7%

Grand Total	23	92	244	140	14	0	0	0	0	0	0	0	0	513

Overall

15th Percentile :	45 KPH
50th Percentile :	55 KPH
85th Percentile :	65 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	55 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	314
Percent in Pace :	61.2%
Number of Vehicles > 50 KPH :	398
Percent of Vehicles > 50 KPH :	77.6%

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Lower Road
Near Civic Address 71
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Start Time	27-Sep-17 Wed	Northbound	Southbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		15	14	29
09:00		7	6	13
10:00		6	5	11
11:00		4	3	7
Total		32	28	
Percent		53.3%	46.7%	

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Lower Road
Near Civic Address 71
Latitude: 47' 38.3257 North
Longitude: 52' 41.2823 West
Date Start: 27-Sep-17
Date End: 28-Sep-17

Start Time	28-Sep-17 Thu	Northbound	Southbound	Combined Total
12:00 AM		0	2	2
01:00		2	1	3
02:00		1	1	2
03:00		1	0	1
04:00		0	3	3
05:00		0	0	0
06:00		3	3	6
07:00		6	28	34
08:00		12	37	49
09:00		9	18	27
10:00		9	22	31
11:00		10	14	24
12:00 PM		16	16	32
01:00		12	21	33
02:00		12	20	32
03:00		19	21	40
04:00		20	18	38
05:00		28	16	44
06:00		13	17	30
07:00		12	10	22
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		185	268	
Percent		40.8%	59.2%	
Grand Total		217	296	
Percentage		42.3%	57.7%	
ADT		ADT 513		AADT 513

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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	0	3	4	0	0	0	0	0	0	0	0	0	0	7
20:00	0	2	4	1	0	0	0	0	0	0	0	0	0	7
21:00	0	3	5	1	0	0	0	0	0	0	0	0	0	9
22:00	2	1	0	1	1	0	0	0	0	0	0	0	0	5
23:00	0	1	1	1	0	0	0	0	0	0	0	0	0	3
Total	2	10	14	4	1	0	0	0	0	0	0	0	0	31
Percent	6.5%	32.3%	45.2%	12.9%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	52 KPH
85th Percentile :	60 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	45-59 KPH
Number in Pace :	19
Percent in Pace :	61.3%
Number of Vehicles > 50 KPH :	19
Percent of Vehicles > 50 KPH :	61.3%

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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/05/17	0	1	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
06:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
07:00	2	1	2	2	1	0	0	0	0	0	0	0	0	8
08:00	2	3	16	8	1	0	0	0	0	0	0	0	0	30
09:00	4	2	15	4	1	0	0	0	0	0	0	0	0	26
10:00	2	11	11	2	1	0	0	0	0	0	0	0	0	27
11:00	0	5	13	2	0	0	0	0	0	0	0	0	0	20
12 PM	0	4	15	4	0	0	0	0	0	0	0	0	0	23
13:00	6	8	22	8	1	0	0	0	0	0	0	0	0	45
14:00	4	8	15	6	0	0	0	0	0	0	0	0	0	33
15:00	2	13	14	2	1	0	0	0	0	0	0	0	0	32
16:00	4	20	44	12	1	0	0	0	0	0	0	0	0	81
17:00	3	46	56	20	1	1	0	0	0	0	0	0	0	127
18:00	2	2	9	8	0	0	0	0	0	0	0	0	0	21
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	32	127	235	79	9	1	0	0	0	0	0	0	0	483
Percent	6.6%	26.3%	48.7%	16.4%	1.9%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	53 KPH
85th Percentile :	62 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	299
Percent in Pace :	61.9%
Number of Vehicles > 50 KPH :	324
Percent of Vehicles > 50 KPH :	67.1%

Grand Total	34	137	249	83	10	1	0	0	0	0	0	0	0	514

Overall

15th Percentile :	43 KPH
50th Percentile :	53 KPH
85th Percentile :	62 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	318
Percent in Pace :	61.9%
Number of Vehicles > 50 KPH :	343
Percent of Vehicles > 50 KPH :	66.7%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	1	5	3	0	1	0	0	0	0	0	0	0	0	10
20:00	1	5	5	0	0	0	0	0	0	0	0	0	0	11
21:00	2	4	1	0	0	0	0	0	0	0	0	0	0	7
22:00	1	1	0	1	0	0	0	0	0	0	0	0	0	3
23:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	5	15	10	1	1	0	0	0	0	0	0	0	0	32
Percent	15.6%	46.9%	31.3%	3.1%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	38 KPH
50th Percentile :	47 KPH
85th Percentile :	57 KPH
95th Percentile :	64 KPH
Mean Speed(Average) :	46 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	20
Percent in Pace :	62.5%
Number of Vehicles > 50 KPH :	12
Percent of Vehicles > 50 KPH :	37.5%

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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/05/17	0	1	2	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	2	1	0	0	0	0	0	0	0	0	0	0	0	3
05:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
06:00	0	0	4	0	0	0	0	0	0	0	0	0	0	4
07:00	3	9	4	2	1	0	0	0	0	0	0	0	0	19
08:00	1	14	19	2	0	0	0	0	0	0	0	0	0	36
09:00	2	8	9	1	0	0	0	0	0	0	0	0	0	20
10:00	3	9	10	3	0	0	0	1	0	0	0	0	0	26
11:00	2	6	7	4	0	0	1	0	0	0	0	0	0	20
12 PM	1	11	19	3	1	0	0	0	0	0	0	0	0	35
13:00	1	7	10	4	3	0	0	0	0	0	0	0	0	25
14:00	0	7	16	3	0	0	0	0	0	0	0	0	0	26
15:00	1	11	14	6	2	1	0	0	0	0	0	0	0	35
16:00	4	6	20	9	2	0	0	0	0	0	0	0	0	41
17:00	1	8	14	5	0	0	0	0	0	0	0	0	0	28
18:00	3	5	5	4	0	0	0	0	0	0	0	0	0	17
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	24	103	155	47	9	1	1	1	0	0	0	0	0	341
Percent	7.0%	30.2%	45.5%	13.8%	2.6%	0.3%	0.3%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	52 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	206
Percent in Pace :	60.4%
Number of Vehicles > 50 KPH :	214
Percent of Vehicles > 50 KPH :	62.8%

Grand Total	29	118	165	48	10	1	1	1	0	0	0	0	0	373

Overall

15th Percentile :	42 KPH
50th Percentile :	52 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	224
Percent in Pace :	60.1%
Number of Vehicles > 50 KPH :	226
Percent of Vehicles > 50 KPH :	60.6%

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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Eastbound, Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	1	8	7	0	1	0	0	0	0	0	0	0	0	17
20:00	1	7	9	1	0	0	0	0	0	0	0	0	0	18
21:00	2	7	6	1	0	0	0	0	0	0	0	0	0	16
22:00	3	2	0	2	1	0	0	0	0	0	0	0	0	8
23:00	0	1	2	1	0	0	0	0	0	0	0	0	0	4
Total	7	25	24	5	2	0	0	0	0	0	0	0	0	63
Percent	11.1%	39.7%	38.1%	7.9%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	40 KPH
50th Percentile :	49 KPH
85th Percentile :	58 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	49 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	37
Percent in Pace :	58.7%
Number of Vehicles > 50 KPH :	31
Percent of Vehicles > 50 KPH :	49.2%

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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Eastbound, Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/05/17	0	2	3	0	0	0	0	0	0	0	0	0	0	5
01:00	0	1	3	0	0	0	0	0	0	0	0	0	0	4
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	3	2	0	0	0	0	0	0	0	0	0	0	0	5
05:00	0	0	0	2	0	0	0	0	0	0	0	0	0	2
06:00	0	1	5	0	0	0	0	0	0	0	0	0	0	6
07:00	5	10	6	4	2	0	0	0	0	0	0	0	0	27
08:00	3	17	35	10	1	0	0	0	0	0	0	0	0	66
09:00	6	10	24	5	1	0	0	0	0	0	0	0	0	46
10:00	5	20	21	5	1	0	0	1	0	0	0	0	0	53
11:00	2	11	20	6	0	0	1	0	0	0	0	0	0	40
12 PM	1	15	34	7	1	0	0	0	0	0	0	0	0	58
13:00	7	15	32	12	4	0	0	0	0	0	0	0	0	70
14:00	4	15	31	9	0	0	0	0	0	0	0	0	0	59
15:00	3	24	28	8	3	1	0	0	0	0	0	0	0	67
16:00	8	26	64	21	3	0	0	0	0	0	0	0	0	122
17:00	4	54	70	25	1	1	0	0	0	0	0	0	0	155
18:00	5	7	14	12	0	0	0	0	0	0	0	0	0	38
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	56	230	390	126	18	2	1	1	0	0	0	0	0	824
Percent	6.8%	27.9%	47.3%	15.3%	2.2%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	505
Percent in Pace :	61.3%
Number of Vehicles > 50 KPH :	538
Percent of Vehicles > 50 KPH :	65.3%

Grand Total	63	255	414	131	20	2	1	1	0	0	0	0	0	887

Overall

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	542
Percent in Pace :	61.1%
Number of Vehicles > 50 KPH :	569
Percent of Vehicles > 50 KPH :	64.1%

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T 709.579.6435 | **F** 709.579.7515

Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Start Time	04-Oct-17 Wed	Eastbound	Westbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		7	10	17
08:00		7	11	18
09:00		9	7	16
10:00		5	3	8
11:00		3	1	4
Total		31	32	
Percent		49.2%	50.8%	

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Marine Drive
Near Civic Address 200
Latitude: 47' 37.2461 North
Longitude: 52' 40.4699 West
Date Start: 04-Oct-17
Date End: 05-Oct-17

Start Time	05-Oct-17 Thu	Eastbound	Westbound	Combined Total
12:00 AM		2	3	5
01:00		2	2	4
02:00		1	0	1
03:00		0	0	0
04:00		2	3	5
05:00		1	1	2
06:00		2	4	6
07:00		8	19	27
08:00		30	36	66
09:00		26	20	46
10:00		27	26	53
11:00		20	20	40
12:00 PM		23	35	58
01:00		45	25	70
02:00		33	26	59
03:00		32	35	67
04:00		81	41	122
05:00		127	28	155
06:00		21	17	38
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		483	341	
Percent		58.6%	41.4%	
Grand Total		514	373	
Percentage		57.9%	42.1%	
ADT		ADT 887		AADT 887

Harbourside Transportation Consultants

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Marine Drive (Town Boundary)
Near Civic Address 272
Latitude: 47' 39.3258 North
Longitude: 52' 42.3867 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/02/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	2	5	11	4	3	0	0	0	0	0	0	0	0	25
18:00	4	4	17	6	1	0	0	0	0	0	0	0	0	32
19:00	0	3	5	4	0	0	0	0	0	0	0	0	0	12
20:00	1	4	5	3	0	0	0	0	0	0	0	0	0	13
21:00	2	0	2	2	2	0	0	0	0	0	0	0	0	8
22:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
23:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	9	17	41	20	6	0	0	0	0	0	0	0	0	93
Percent	9.7%	18.3%	44.1%	21.5%	6.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	54 KPH
85th Percentile :	66 KPH
95th Percentile :	72 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	51
Percent in Pace :	54.8%
Number of Vehicles > 50 KPH :	67
Percent of Vehicles > 50 KPH :	72.0%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Marine Drive (Town Boundary)
Near Civic Address 272
Latitude: 47' 39.3258 North
Longitude: 52' 42.3867 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	2	1	7	0	3	0	0	0	0	0	0	0	0	13
07:00	3	3	14	8	4	0	0	0	0	0	0	0	0	32
08:00	6	15	24	15	1	0	0	0	0	0	0	0	0	61
09:00	1	2	15	4	0	0	0	0	0	0	0	0	0	22
10:00	2	2	9	1	1	0	0	0	0	0	0	0	0	15
11:00	0	2	5	5	0	0	0	0	0	0	0	0	0	12
12 PM	1	5	10	3	1	0	0	0	0	0	0	0	0	20
13:00	0	5	17	10	2	0	0	0	0	0	0	0	0	34
14:00	0	11	4	6	2	1	0	0	0	0	0	0	0	24
15:00	4	11	5	5	0	0	0	1	0	0	0	0	0	26
16:00	2	1	5	6	2	0	1	0	0	0	0	0	0	17
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	22	59	116	64	16	1	1	1	0	0	0	0	0	280
Percent	7.9%	21.1%	41.4%	22.9%	5.7%	0.4%	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	55 KPH
85th Percentile :	66 KPH
95th Percentile :	73 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	148
Percent in Pace :	52.9%
Number of Vehicles > 50 KPH :	199
Percent of Vehicles > 50 KPH :	71.1%

Grand Total	31	76	157	84	22	1	1	1	0	0	0	0	0	373

Overall

15th Percentile :	43 KPH
50th Percentile :	55 KPH
85th Percentile :	66 KPH
95th Percentile :	72 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	199
Percent in Pace :	53.4%
Number of Vehicles > 50 KPH :	266
Percent of Vehicles > 50 KPH :	71.3%

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Marine Drive (Town Boundary)
Near Civic Address 272
Latitude: 47' 39.3258 North
Longitude: 52' 42.3867 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/02/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	5	13	29	9	1	0	0	0	0	0	0	0	0	57
18:00	6	13	16	4	0	0	0	0	0	0	0	0	0	39
19:00	5	9	15	5	0	0	0	0	0	0	0	0	0	34
20:00	1	14	4	4	1	0	0	0	0	0	0	0	0	24
21:00	4	3	5	2	1	0	0	0	0	0	0	0	0	15
22:00	0	3	10	1	1	0	0	0	0	0	0	0	0	15
23:00	0	3	0	0	2	0	0	0	0	0	0	0	0	5
Total	21	58	79	25	6	0	0	0	0	0	0	0	0	189
Percent	11.1%	30.7%	41.8%	13.2%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	41 KPH
50th Percentile :	51 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	50 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	108
Percent in Pace :	57.1%
Number of Vehicles > 50 KPH :	110
Percent of Vehicles > 50 KPH :	58.2%

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Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	2	0	2	0	0	0	0	0	0	0	0	4
07:00	3	5	9	1	1	0	0	0	0	0	0	0	0	19
08:00	8	13	20	1	0	0	0	0	0	0	0	0	0	42
09:00	2	5	9	5	1	0	0	0	0	0	0	0	0	22
10:00	2	9	12	6	0	0	0	0	0	0	0	0	0	29
11:00	2	8	4	4	0	0	0	0	0	0	0	0	0	18
12 PM	1	10	12	7	0	0	0	0	0	0	0	0	0	30
13:00	1	9	11	2	1	0	0	0	0	0	0	0	0	24
14:00	8	13	9	4	2	0	0	0	0	0	0	0	0	36
15:00	3	12	19	2	0	0	0	0	0	0	0	0	0	36
16:00	3	11	46	9	1	1	0	0	0	0	0	0	0	71
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	34	95	153	41	8	1	0	0	0	0	0	0	0	332
Percent	10.2%	28.6%	46.1%	12.3%	2.4%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	41 KPH
50th Percentile :	52 KPH
85th Percentile :	60 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	51 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	201
Percent in Pace :	60.5%
Number of Vehicles > 50 KPH :	203
Percent of Vehicles > 50 KPH :	61.1%

Grand Total	55	153	232	66	14	1	0	0	0	0	0	0	0	521

Overall

15th Percentile :	41 KPH
50th Percentile :	52 KPH
85th Percentile :	60 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	51 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	308
Percent in Pace :	59.1%
Number of Vehicles > 50 KPH :	313
Percent of Vehicles > 50 KPH :	60.1%

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Southbound, Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/02/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	7	18	40	13	4	0	0	0	0	0	0	0	0	82
18:00	10	17	33	10	1	0	0	0	0	0	0	0	0	71
19:00	5	12	20	9	0	0	0	0	0	0	0	0	0	46
20:00	2	18	9	7	1	0	0	0	0	0	0	0	0	37
21:00	6	3	7	4	3	0	0	0	0	0	0	0	0	23
22:00	0	3	11	2	1	0	0	0	0	0	0	0	0	17
23:00	0	4	0	0	2	0	0	0	0	0	0	0	0	6
Total	30	75	120	45	12	0	0	0	0	0	0	0	0	282
Percent	10.6%	26.6%	42.6%	16.0%	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	41 KPH
50th Percentile :	53 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	157
Percent in Pace :	55.7%
Number of Vehicles > 50 KPH :	177
Percent of Vehicles > 50 KPH :	62.8%

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Near Civic Address 272
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Date End: 03-Oct-17

Southbound, Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	1	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	2	0	0	0	0	0	0	0	0	0	0	0	0	2
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	2	1	9	0	5	0	0	0	0	0	0	0	0	17
07:00	6	8	23	9	5	0	0	0	0	0	0	0	0	51
08:00	14	28	44	16	1	0	0	0	0	0	0	0	0	103
09:00	3	7	24	9	1	0	0	0	0	0	0	0	0	44
10:00	4	11	21	7	1	0	0	0	0	0	0	0	0	44
11:00	2	10	9	9	0	0	0	0	0	0	0	0	0	30
12 PM	2	15	22	10	1	0	0	0	0	0	0	0	0	50
13:00	1	14	28	12	3	0	0	0	0	0	0	0	0	58
14:00	8	24	13	10	4	1	0	0	0	0	0	0	0	60
15:00	7	23	24	7	0	0	0	1	0	0	0	0	0	62
16:00	5	12	51	15	3	1	1	0	0	0	0	0	0	88
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	56	154	269	105	24	2	1	1	0	0	0	0	0	612
Percent	9.2%	25.2%	44.0%	17.2%	3.9%	0.3%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	346
Percent in Pace :	56.5%
Number of Vehicles > 50 KPH :	402
Percent of Vehicles > 50 KPH :	65.7%

Grand Total	86	229	389	150	36	2	1	1	0	0	0	0	0	894

Overall

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	504
Percent in Pace :	56.4%
Number of Vehicles > 50 KPH :	579
Percent of Vehicles > 50 KPH :	64.8%

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Marine Drive (Town Boundary)
Near Civic Address 272
Latitude: 47' 39.3258 North
Longitude: 52' 42.3867 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Start Time	02-Oct-17 Mon	Southbound	Northbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		25	57	82
06:00		32	39	71
07:00		12	34	46
08:00		13	24	37
09:00		8	15	23
10:00		2	15	17
11:00		1	5	6
Total		93	189	
Percent		33.0%	67.0%	

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Date End: 03-Oct-17

Start Time	03-Oct-17 Tue	Southbound	Northbound	Combined Total
12:00 AM		0	0	0
01:00		1	0	1
02:00		2	0	2
03:00		0	0	0
04:00		1	1	2
05:00		0	0	0
06:00		13	4	17
07:00		32	19	51
08:00		61	42	103
09:00		22	22	44
10:00		15	29	44
11:00		12	18	30
12:00 PM		20	30	50
01:00		34	24	58
02:00		24	36	60
03:00		26	36	62
04:00		17	71	88
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		280	332	
Percent		45.8%	54.2%	
Grand Total		373	521	
Percentage		41.7%	58.3%	
ADT		ADT 894		AADT 894

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Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/02/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	2	8	24	2	2	0	0	0	0	0	0	0	0	38
19:00	1	11	24	4	1	0	0	0	0	0	0	0	0	41
20:00	0	15	13	1	0	0	0	0	0	0	0	0	0	29
21:00	2	8	11	3	2	0	0	0	0	0	0	0	0	26
22:00	1	5	0	1	0	0	0	0	0	0	0	0	0	7
23:00	0	3	3	0	0	0	0	0	0	0	0	0	0	6
Total	6	50	75	11	5	0	0	0	0	0	0	0	0	147
Percent	4.1%	34.0%	51.0%	7.5%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	52 KPH
85th Percentile :	59 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	100
Percent in Pace :	68.0%
Number of Vehicles > 50 KPH :	91
Percent of Vehicles > 50 KPH :	61.9%

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St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	2	0	0	0	0	0	0	0	0	0	0	2
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	3
03:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00	0	3	4	0	0	0	0	0	1	0	0	0	0	8
06:00	2	5	5	0	2	0	0	0	0	0	0	0	0	14
07:00	5	17	9	5	1	0	0	0	0	0	0	0	0	37
08:00	8	15	32	9	2	1	0	0	0	0	0	0	0	67
09:00	4	2	13	9	1	0	0	0	0	0	0	0	0	29
10:00	1	10	16	6	0	1	0	0	0	0	0	0	0	34
11:00	1	4	7	5	1	0	0	0	0	0	0	0	0	18
12 PM	2	3	13	2	0	0	0	0	0	0	0	0	0	20
13:00	5	13	13	6	0	0	0	0	0	0	0	0	0	37
14:00	4	10	13	6	2	0	0	0	0	0	0	0	0	35
15:00	1	14	19	3	0	0	1	0	0	0	0	0	0	38
16:00	3	8	31	9	1	0	0	0	0	0	0	0	0	52
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	36	106	180	60	10	2	1	0	1	0	0	0	0	396
Percent	9.1%	26.8%	45.5%	15.2%	2.5%	0.5%	0.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	62 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	233
Percent in Pace :	58.8%
Number of Vehicles > 50 KPH :	254
Percent of Vehicles > 50 KPH :	64.1%

Grand Total	42	156	255	71	15	2	1	0	1	0	0	0	0	543

Overall

15th Percentile :	42 KPH
50th Percentile :	52 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	52 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	333
Percent in Pace :	61.3%
Number of Vehicles > 50 KPH :	345
Percent of Vehicles > 50 KPH :	63.5%

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Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/02/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	0	8	39	12	0	0	0	0	0	0	0	0	0	59
19:00	0	11	19	7	1	0	0	0	0	0	0	0	0	38
20:00	2	9	21	3	0	0	0	0	0	0	0	0	0	35
21:00	1	5	17	3	1	0	0	0	0	0	0	0	0	27
22:00	1	4	6	7	2	0	0	0	0	0	0	0	0	20
23:00	1	0	6	2	0	0	0	0	0	0	0	0	0	9
Total	5	37	108	34	4	0	0	0	0	0	0	0	0	188
Percent	2.7%	19.7%	57.4%	18.1%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	46 KPH
50th Percentile :	54 KPH
85th Percentile :	62 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	55 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	127
Percent in Pace :	67.6%
Number of Vehicles > 50 KPH :	146
Percent of Vehicles > 50 KPH :	77.7%

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Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	0	1	3	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
02:00	0	2	3	0	0	0	0	0	0	0	0	0	0	5
03:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
04:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
05:00	0	0	3	0	0	0	0	0	0	0	0	0	0	3
06:00	2	0	1	3	1	0	0	0	0	0	0	0	0	7
07:00	0	5	13	4	1	0	0	0	0	0	0	0	0	23
08:00	1	9	17	1	2	0	0	0	0	0	0	0	0	30
09:00	4	2	14	5	0	0	0	0	0	0	0	0	0	25
10:00	2	10	15	4	0	0	0	0	0	0	0	0	0	31
11:00	1	5	15	7	0	0	0	0	0	0	0	0	0	28
12 PM	2	8	20	8	0	0	0	0	0	0	0	0	0	38
13:00	2	5	22	4	2	0	0	0	0	0	0	0	0	35
14:00	2	9	14	15	2	0	0	0	0	0	0	0	0	42
15:00	4	14	24	12	1	0	1	0	0	0	0	0	0	56
16:00	5	15	28	9	2	0	0	0	0	0	0	0	0	59
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	26	86	193	73	12	0	1	0	0	0	0	0	0	391
Percent	6.6%	22.0%	49.4%	18.7%	3.1%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	54 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	236
Percent in Pace :	60.4%
Number of Vehicles > 50 KPH :	279
Percent of Vehicles > 50 KPH :	71.4%

Grand Total	31	123	301	107	16	0	1	0	0	0	0	0	0	579

Overall

15th Percentile :	44 KPH
50th Percentile :	54 KPH
85th Percentile :	63 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	363
Percent in Pace :	62.7%
Number of Vehicles > 50 KPH :	425
Percent of Vehicles > 50 KPH :	73.4%

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Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Westbound, Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/02/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	2	16	63	14	2	0	0	0	0	0	0	0	0	97
19:00	1	22	43	11	2	0	0	0	0	0	0	0	0	79
20:00	2	24	34	4	0	0	0	0	0	0	0	0	0	64
21:00	3	13	28	6	3	0	0	0	0	0	0	0	0	53
22:00	2	9	6	8	2	0	0	0	0	0	0	0	0	27
23:00	1	3	9	2	0	0	0	0	0	0	0	0	0	15
Total	11	87	183	45	9	0	0	0	0	0	0	0	0	335
Percent	3.3%	26.0%	54.6%	13.4%	2.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	44 KPH
50th Percentile :	53 KPH
85th Percentile :	60 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	227
Percent in Pace :	67.8%
Number of Vehicles > 50 KPH :	237
Percent of Vehicles > 50 KPH :	70.7%

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Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Westbound, Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	0	1	3	0	0	0	0	0	0	0	0	0	0	4
01:00	0	1	3	0	1	0	0	0	0	0	0	0	0	5
02:00	0	4	4	0	0	0	0	0	0	0	0	0	0	8
03:00	0	0	1	1	0	0	0	0	0	0	0	0	0	2
04:00	1	0	1	0	0	0	0	0	0	0	0	0	0	2
05:00	0	3	7	0	0	0	0	0	1	0	0	0	0	11
06:00	4	5	6	3	3	0	0	0	0	0	0	0	0	21
07:00	5	22	22	9	2	0	0	0	0	0	0	0	0	60
08:00	9	24	49	10	4	1	0	0	0	0	0	0	0	97
09:00	8	4	27	14	1	0	0	0	0	0	0	0	0	54
10:00	3	20	31	10	0	1	0	0	0	0	0	0	0	65
11:00	2	9	22	12	1	0	0	0	0	0	0	0	0	46
12 PM	4	11	33	10	0	0	0	0	0	0	0	0	0	58
13:00	7	18	35	10	2	0	0	0	0	0	0	0	0	72
14:00	6	19	27	21	4	0	0	0	0	0	0	0	0	77
15:00	5	28	43	15	1	0	2	0	0	0	0	0	0	94
16:00	8	23	59	18	3	0	0	0	0	0	0	0	0	111
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	62	192	373	133	22	2	2	0	1	0	0	0	0	787
Percent	7.9%	24.4%	47.4%	16.9%	2.8%	0.3%	0.3%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	42 KPH
50th Percentile :	53 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	469
Percent in Pace :	59.6%
Number of Vehicles > 50 KPH :	533
Percent of Vehicles > 50 KPH :	67.7%

Grand Total	73	279	556	178	31	2	2	0	1	0	0	0	0	1122

Overall

15th Percentile :	43 KPH
50th Percentile :	53 KPH
85th Percentile :	62 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	696
Percent in Pace :	62.0%
Number of Vehicles > 50 KPH :	770
Percent of Vehicles > 50 KPH :	68.6%

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Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Start Time	02-Oct-17 Mon	Westbound	Eastbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		38	59	97
07:00		41	38	79
08:00		29	35	64
09:00		26	27	53
10:00		7	20	27
11:00		6	9	15
Total		147	188	
Percent		43.9%	56.1%	

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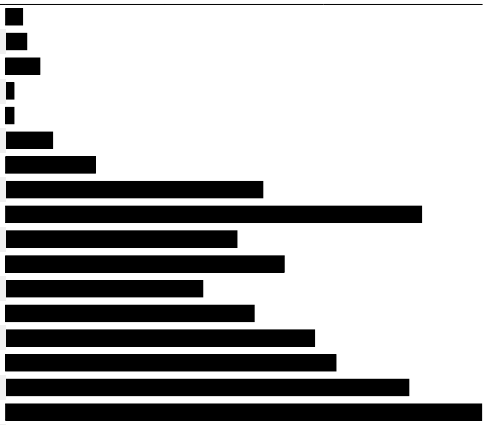
Middle Cove Road
Near Civic Address 232
Latitude: 47' 38.6339 North
Longitude: 52' 43.1777 West
Date Start: 02-Oct-17
Date End: 03-Oct-17

Start Time	03-Oct-17 Tue	Westbound	Eastbound	Combined Total
12:00 AM		0	4	4
01:00		2	3	5
02:00		3	5	8
03:00		1	1	2
04:00		1	1	2
05:00		8	3	11
06:00		14	7	21
07:00		37	23	60
08:00		67	30	97
09:00		29	25	54
10:00		34	31	65
11:00		18	28	46
12:00 PM		20	38	58
01:00		37	35	72
02:00		35	42	77
03:00		38	56	94
04:00		52	59	111
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		396	391	
Percent		50.3%	49.7%	
Grand Total		543	579	
Percentage		48.4%	51.6%	
ADT		ADT 1,211		AADT 1,211



Harbourside Transportation Consultants

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Outer Cove Road
Near Civic Address 102
Latitude: 47' 38.5161 North
Longitude: 52' 41.5802 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	2	5	17	2	1	0	0	0	0	0	0	0	0	27
20:00	0	5	9	1	0	0	0	0	0	0	0	0	0	15
21:00	0	4	6	2	1	0	0	0	0	0	0	0	0	13
22:00	0	2	6	1	0	0	0	0	0	0	0	0	0	9
23:00	1	0	2	0	0	0	0	0	0	0	0	0	0	3
Total	3	16	40	6	2	0	0	0	0	0	0	0	0	67
Percent	4.5%	23.9%	59.7%	9.0%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	44 KPH
50th Percentile :	53 KPH
85th Percentile :	59 KPH
95th Percentile :	67 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	48
Percent in Pace :	71.6%
Number of Vehicles > 50 KPH :	48
Percent of Vehicles > 50 KPH :	71.6%

Harbourside Transportation Consultants
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T 709.579.6435 | **F** 709.579.7515

Outer Cove Road
Near Civic Address 102
Latitude: 47' 38.5161 North
Longitude: 52' 41.5802 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Northbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00	0	0	2	0	1	0	0	0	0	0	0	0	0	3
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	1	0	0	0	0	0	0	0	0	1
06:00	1	0	1	2	0	0	0	0	0	0	0	0	0	4
07:00	0	1	8	2	0	0	0	0	0	0	0	0	0	11
08:00	1	6	3	3	1	0	0	0	0	0	0	0	0	14
09:00	5	4	4	1	0	0	0	0	0	0	0	0	0	14
10:00	4	6	4	2	0	0	0	0	0	0	0	0	0	16
11:00	0	3	9	1	0	0	0	0	0	0	0	0	0	13
12 PM	0	1	15	6	1	0	0	0	0	0	0	0	0	23
13:00	3	4	6	1	2	0	0	0	0	0	0	0	0	16
14:00	1	18	16	4	1	0	0	0	0	0	0	0	0	40
15:00	3	9	17	4	2	0	0	0	0	0	0	0	0	35
16:00	0	19	56	16	3	0	0	0	0	0	0	0	0	94
17:00	0	10	53	19	2	0	0	0	0	0	0	0	0	84
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	18	83	194	61	14	0	0	0	0	0	0	0	0	370
Percent	4.9%	22.4%	52.4%	16.5%	3.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	44 KPH
50th Percentile :	54 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	236
Percent in Pace :	63.8%
Number of Vehicles > 50 KPH :	269
Percent of Vehicles > 50 KPH :	72.7%

Grand Total	21	99	234	67	16	0	0	0	0	0	0	0	0	437

Overall

15th Percentile :	44 KPH
50th Percentile :	54 KPH
85th Percentile :	62 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	54 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	283
Percent in Pace :	64.8%
Number of Vehicles > 50 KPH :	317
Percent of Vehicles > 50 KPH :	72.5%

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Outer Cove Road
Near Civic Address 102
Latitude: 47' 38.5161 North
Longitude: 52' 41.5802 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	12	17	31	9	4	0	0	0	0	0	0	0	0	73
20:00	6	8	12	8	0	0	0	0	0	0	0	0	0	34
21:00	0	9	12	2	0	0	0	0	0	0	0	0	0	23
22:00	0	6	8	5	1	0	0	0	0	0	0	0	0	20
23:00	2	2	4	0	0	0	0	0	0	0	0	0	0	8
Total	20	42	67	24	5	0	0	0	0	0	0	0	0	158
Percent	12.7%	26.6%	42.4%	15.2%	3.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	40 KPH
50th Percentile :	52 KPH
85th Percentile :	62 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	51 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	88
Percent in Pace :	55.7%
Number of Vehicles > 50 KPH :	96
Percent of Vehicles > 50 KPH :	60.8%

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Date Start: 03-Oct-17
Date End: 04-Oct-17

Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	0	1	3	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
03:00	1	0	2	0	0	0	0	0	0	0	0	0	0	3
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	1	2	5	1	1	1	0	0	0	0	0	0	0	11
07:00	0	10	51	21	4	0	0	0	0	0	0	0	0	86
08:00	3	12	61	34	5	0	0	0	0	0	0	0	0	115
09:00	19	10	23	10	1	0	0	0	0	0	0	0	0	63
10:00	3	15	18	10	1	0	0	0	0	0	0	0	0	47
11:00	12	18	24	10	1	0	0	0	0	0	0	0	0	65
12 PM	8	12	30	18	4	0	0	0	0	0	0	0	0	72
13:00	7	21	33	9	1	0	0	0	0	0	0	0	0	71
14:00	4	36	43	13	1	0	0	0	0	0	0	0	0	97
15:00	17	33	42	12	1	0	0	0	0	0	0	0	0	105
16:00	6	20	75	36	3	0	0	0	0	0	0	0	0	140
17:00	1	9	34	20	2	1	0	0	0	0	0	0	0	67
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	82	201	446	194	25	2	0	0	0	0	0	0	0	950
Percent	8.6%	21.2%	46.9%	20.4%	2.6%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	54 KPH
85th Percentile :	64 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	546
Percent in Pace :	57.5%
Number of Vehicles > 50 KPH :	667
Percent of Vehicles > 50 KPH :	70.2%

Grand Total	102	243	513	218	30	2	0	0	0	0	0	0	0	1108

Overall

15th Percentile :	42 KPH
50th Percentile :	54 KPH
85th Percentile :	63 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	635
Percent in Pace :	57.3%
Number of Vehicles > 50 KPH :	763
Percent of Vehicles > 50 KPH :	68.9%

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Outer Cove Road
Near Civic Address 102
Latitude: 47' 38.5161 North
Longitude: 52' 41.5802 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	14	22	48	11	5	0	0	0	0	0	0	0	0	100
20:00	6	13	21	9	0	0	0	0	0	0	0	0	0	49
21:00	0	13	18	4	1	0	0	0	0	0	0	0	0	36
22:00	0	8	14	6	1	0	0	0	0	0	0	0	0	29
23:00	3	2	6	0	0	0	0	0	0	0	0	0	0	11
Total	23	58	107	30	7	0	0	0	0	0	0	0	0	225
Percent	10.2%	25.8%	47.6%	13.3%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	41 KPH
50th Percentile :	52 KPH
85th Percentile :	61 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	51 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	136
Percent in Pace :	60.4%
Number of Vehicles > 50 KPH :	144
Percent of Vehicles > 50 KPH :	64.0%

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Date Start: 03-Oct-17
Date End: 04-Oct-17

Northbound, Southbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	0	1	3	0	0	0	0	0	0	0	0	0	0	4
01:00	0	0	3	0	1	0	0	0	0	0	0	0	0	4
02:00	0	2	0	0	0	0	0	0	0	0	0	0	0	2
03:00	1	1	2	0	0	0	0	0	0	0	0	0	0	4
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	1	1	0	1	0	0	0	0	0	0	0	0	3
06:00	2	2	6	3	1	1	0	0	0	0	0	0	0	15
07:00	0	11	59	23	4	0	0	0	0	0	0	0	0	97
08:00	4	18	64	37	6	0	0	0	0	0	0	0	0	129
09:00	24	14	27	11	1	0	0	0	0	0	0	0	0	77
10:00	7	21	22	12	1	0	0	0	0	0	0	0	0	63
11:00	12	21	33	11	1	0	0	0	0	0	0	0	0	78
12 PM	8	13	45	24	5	0	0	0	0	0	0	0	0	95
13:00	10	25	39	10	3	0	0	0	0	0	0	0	0	87
14:00	5	54	59	17	2	0	0	0	0	0	0	0	0	137
15:00	20	42	59	16	3	0	0	0	0	0	0	0	0	140
16:00	6	39	131	52	6	0	0	0	0	0	0	0	0	234
17:00	1	19	87	39	4	1	0	0	0	0	0	0	0	151
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	100	284	640	255	39	2	0	0	0	0	0	0	0	1320
Percent	7.6%	21.5%	48.5%	19.3%	3.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	43 KPH
50th Percentile :	54 KPH
85th Percentile :	63 KPH
95th Percentile :	69 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	782
Percent in Pace :	59.2%
Number of Vehicles > 50 KPH :	936
Percent of Vehicles > 50 KPH :	70.9%

Grand Total	123	342	747	285	46	2	0	0	0	0	0	0	0	1545

Overall

15th Percentile :	43 KPH
50th Percentile :	54 KPH
85th Percentile :	63 KPH
95th Percentile :	68 KPH
Mean Speed(Average) :	53 KPH
15 KPH Pace Speed :	46-60 KPH
Number in Pace :	918
Percent in Pace :	59.4%
Number of Vehicles > 50 KPH :	1080
Percent of Vehicles > 50 KPH :	69.9%

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Outer Cove Road
Near Civic Address 102
Latitude: 47' 38.5161 North
Longitude: 52' 41.5802 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Start Time	03-Oct-17 Tue	Northbound	Southbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		27	73	100
08:00		15	34	49
09:00		13	23	36
10:00		9	20	29
11:00		3	8	11
Total		67	158	
Percent		29.8%	70.2%	

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Date Start: 03-Oct-17
Date End: 04-Oct-17

Start Time	04-Oct-17 Wed	Northbound	Southbound	Combined Total
12:00 AM		0	4	4
01:00		3	1	4
02:00		1	1	2
03:00		1	3	4
04:00		0	0	0
05:00		1	2	3
06:00		4	11	15
07:00		11	86	97
08:00		14	115	129
09:00		14	63	77
10:00		16	47	63
11:00		13	65	78
12:00 PM		23	72	95
01:00		16	71	87
02:00		40	97	137
03:00		35	105	140
04:00		94	140	234
05:00		84	67	151
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		370	950	
Percent		28.0%	72.0%	
Grand Total		437	1108	
Percentage		28.3%	71.7%	
ADT		ADT 1,635		AADT 1,635

Harbourside Transportation Consultants

Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	2	1	16	5	6	1	0	0	0	0	0	0	0	31
20:00	0	2	11	6	4	0	0	0	0	0	0	0	0	23
21:00	1	3	6	4	1	1	0	0	0	0	0	0	0	16
22:00	0	2	7	1	0	0	0	0	0	0	0	0	0	10
23:00	0	0	0	3	1	0	0	0	0	0	0	0	0	4
Total	3	8	40	19	12	2	0	0	0	0	0	0	0	84
Percent	3.6%	9.5%	47.6%	22.6%	14.3%	2.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	57 KPH
85th Percentile :	71 KPH
95th Percentile :	78 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	50
Percent in Pace :	59.5%
Number of Vehicles > 50 KPH :	73
Percent of Vehicles > 50 KPH :	86.9%

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Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	0	1	0	1	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
06:00	0	0	0	2	2	0	0	0	0	0	0	0	0	4
07:00	0	2	19	23	6	0	0	0	0	0	0	0	0	50
08:00	0	4	12	14	5	0	0	0	0	0	0	0	0	35
09:00	0	3	9	5	0	1	0	0	0	0	0	0	0	18
10:00	1	1	10	5	1	0	0	0	0	0	0	0	0	18
11:00	1	1	18	6	3	1	0	0	0	0	0	0	0	30
12 PM	1	5	16	15	1	1	1	0	0	0	0	0	0	40
13:00	0	6	21	9	5	1	1	0	0	0	0	0	0	43
14:00	1	11	20	14	4	0	0	0	0	0	0	0	0	50
15:00	3	4	27	18	5	0	0	0	0	0	0	0	0	57
16:00	0	3	18	22	1	0	0	0	0	0	0	0	0	44
17:00	1	1	9	13	8	1	0	0	0	0	0	0	0	33
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	8	43	181	148	41	5	2	0	0	0	0	0	0	428
Percent	1.9%	10.0%	42.3%	34.6%	9.6%	1.2%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	59 KPH
85th Percentile :	68 KPH
95th Percentile :	76 KPH
Mean Speed(Average) :	60 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	255
Percent in Pace :	59.6%
Number of Vehicles > 50 KPH :	377
Percent of Vehicles > 50 KPH :	88.1%

Grand Total	11	51	221	167	53	7	2	0	0	0	0	0	0	512

Overall

15th Percentile :	50 KPH
50th Percentile :	58 KPH
85th Percentile :	69 KPH
95th Percentile :	76 KPH
Mean Speed(Average) :	60 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	304
Percent in Pace :	59.4%
Number of Vehicles > 50 KPH :	450
Percent of Vehicles > 50 KPH :	87.9%

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Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	0	4	9	5	2	1	0	0	0	0	0	0	0	21
20:00	0	0	5	3	2	0	2	0	0	0	0	0	0	12
21:00	0	0	1	0	1	0	0	0	0	0	0	0	0	2
22:00	0	2	1	2	1	0	0	0	0	0	0	0	0	6
23:00	0	1	0	1	1	0	0	0	0	0	0	0	0	3
Total	0	7	16	11	7	1	2	0	0	0	0	0	0	44
Percent	0.0%	15.9%	36.4%	25.0%	15.9%	2.3%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	49 KPH
50th Percentile :	59 KPH
85th Percentile :	74 KPH
95th Percentile :	88 KPH
Mean Speed(Average) :	62 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	22
Percent in Pace :	50.0%
Number of Vehicles > 50 KPH :	37
Percent of Vehicles > 50 KPH :	84.1%

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Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	1	0	1	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	2	1	1	0	0	0	0	0	0	0	0	0	4
06:00	0	1	5	3	0	0	0	0	0	0	0	0	0	9
07:00	2	0	11	5	1	1	0	0	0	0	0	0	0	20
08:00	0	2	12	11	4	1	0	0	0	0	0	0	0	30
09:00	3	5	5	3	1	1	0	0	0	0	0	0	0	18
10:00	1	3	6	7	3	0	0	0	0	0	0	0	0	20
11:00	0	1	8	6	3	0	0	0	0	0	0	0	0	18
12 PM	1	0	8	9	4	0	0	0	0	0	0	0	0	22
13:00	1	4	7	5	2	0	0	0	0	0	0	0	0	19
14:00	0	5	12	5	3	1	0	0	0	0	0	0	0	26
15:00	2	10	12	8	1	0	0	1	0	0	0	0	0	34
16:00	1	5	34	13	3	0	0	0	0	0	0	0	0	56
17:00	0	2	15	10	2	0	0	0	0	0	0	0	0	29
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	12	41	138	86	27	4	0	1	0	0	0	0	0	309
Percent	3.9%	13.3%	44.7%	27.8%	8.7%	1.3%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	48 KPH
50th Percentile :	57 KPH
85th Percentile :	68 KPH
95th Percentile :	76 KPH
Mean Speed(Average) :	58 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	181
Percent in Pace :	58.6%
Number of Vehicles > 50 KPH :	256
Percent of Vehicles > 50 KPH :	82.8%

Grand Total	12	48	154	97	34	5	2	1	0	0	0	0	0	353

Overall

15th Percentile :	48 KPH
50th Percentile :	57 KPH
85th Percentile :	68 KPH
95th Percentile :	77 KPH
Mean Speed(Average) :	58 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	202
Percent in Pace :	57.2%
Number of Vehicles > 50 KPH :	293
Percent of Vehicles > 50 KPH :	83.0%

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Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Eastbound, Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/03/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	2	5	25	10	8	2	0	0	0	0	0	0	0	52
20:00	0	2	16	9	6	0	2	0	0	0	0	0	0	35
21:00	1	3	7	4	2	1	0	0	0	0	0	0	0	18
22:00	0	4	8	3	1	0	0	0	0	0	0	0	0	16
23:00	0	1	0	4	2	0	0	0	0	0	0	0	0	7
Total	3	15	56	30	19	3	2	0	0	0	0	0	0	128
Percent	2.3%	11.7%	43.8%	23.4%	14.8%	2.3%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	58 KPH
85th Percentile :	72 KPH
95th Percentile :	79 KPH
Mean Speed(Average) :	60 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	71
Percent in Pace :	55.5%
Number of Vehicles > 50 KPH :	110
Percent of Vehicles > 50 KPH :	85.9%

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Eastbound, Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/04/17	1	1	1	1	0	0	0	0	0	0	0	0	0	4
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	1	1	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
05:00	0	3	2	1	0	0	0	0	0	0	0	0	0	6
06:00	0	1	5	5	2	0	0	0	0	0	0	0	0	13
07:00	2	2	30	28	7	1	0	0	0	0	0	0	0	70
08:00	0	6	24	25	9	1	0	0	0	0	0	0	0	65
09:00	3	8	14	8	1	2	0	0	0	0	0	0	0	36
10:00	2	4	16	12	4	0	0	0	0	0	0	0	0	38
11:00	1	2	26	12	6	1	0	0	0	0	0	0	0	48
12 PM	2	5	24	24	5	1	1	0	0	0	0	0	0	62
13:00	1	10	28	14	7	1	1	0	0	0	0	0	0	62
14:00	1	16	32	19	7	1	0	0	0	0	0	0	0	76
15:00	5	14	39	26	6	0	0	1	0	0	0	0	0	91
16:00	1	8	52	35	4	0	0	0	0	0	0	0	0	100
17:00	1	3	24	23	10	1	0	0	0	0	0	0	0	62
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	20	84	319	234	68	9	2	1	0	0	0	0	0	737
Percent	2.7%	11.4%	43.3%	31.8%	9.2%	1.2%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	50 KPH
50th Percentile :	58 KPH
85th Percentile :	68 KPH
95th Percentile :	76 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	436
Percent in Pace :	59.2%
Number of Vehicles > 50 KPH :	633
Percent of Vehicles > 50 KPH :	85.9%

Grand Total	23	99	375	264	87	12	4	1	0	0	0	0	0	865

Overall

15th Percentile :	50 KPH
50th Percentile :	58 KPH
85th Percentile :	69 KPH
95th Percentile :	76 KPH
Mean Speed(Average) :	59 KPH
15 KPH Pace Speed :	51-65 KPH
Number in Pace :	507
Percent in Pace :	58.6%
Number of Vehicles > 50 KPH :	743
Percent of Vehicles > 50 KPH :	85.9%

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Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Start Time	03-Oct-17 Tue	Eastbound	Westbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		31	21	52
08:00		23	12	35
09:00		16	2	18
10:00		10	6	16
11:00		4	3	7
Total		84	44	
Percent		65.6%	34.4%	

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Pine Line
Near Civic Address 171-397
Latitude: 47' 38.2535 North
Longitude: 52' 42.7385 West
Date Start: 03-Oct-17
Date End: 04-Oct-17

Start Time	04-Oct-17 Wed	Eastbound	Westbound	Combined Total
12:00 AM		2	2	4
01:00		0	0	0
02:00		1	0	1
03:00		0	2	2
04:00		1	0	1
05:00		2	4	6
06:00		4	9	13
07:00		50	20	70
08:00		35	30	65
09:00		18	18	36
10:00		18	20	38
11:00		30	18	48
12:00 PM		40	22	62
01:00		43	19	62
02:00		50	26	76
03:00		57	34	91
04:00		44	56	100
05:00		33	29	62
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		428	309	
Percent		58.1%	41.9%	
Grand Total		512	353	
Percentage		59.2%	40.8%	
ADT		ADT 941		AADT 941

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Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.0128 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/26/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	22	42	11	0	0	0	0	0	0	0	0	0	0	75
20:00	11	31	12	0	0	0	0	0	0	0	0	0	0	54
21:00	3	13	5	2	0	0	0	0	0	0	0	0	0	23
22:00	5	6	6	0	0	0	0	0	0	0	0	0	0	17
23:00	2	1	2	0	0	0	0	0	0	0	0	0	0	5
Total	43	93	36	2	0	0	0	0	0	0	0	0	0	174
Percent	24.7%	53.4%	20.7%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	24 KPH
50th Percentile :	44 KPH
85th Percentile :	53 KPH
95th Percentile :	58 KPH
Mean Speed(Average) :	42 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	111
Percent in Pace :	63.8%
Number of Vehicles > 50 KPH :	38
Percent of Vehicles > 50 KPH :	21.8%

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Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.0128 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	0	3	0	0	0	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
05:00	5	5	1	2	0	0	0	0	0	0	0	0	0	13
06:00	4	12	13	1	0	0	0	0	0	0	0	0	0	30
07:00	21	30	14	1	0	0	0	0	0	0	0	0	0	66
08:00	22	71	30	3	0	0	0	0	0	0	0	0	0	126
09:00	34	47	20	1	1	0	0	0	0	0	0	0	0	103
10:00	43	40	19	4	0	0	0	0	0	0	0	0	0	106
11:00	30	48	14	2	0	0	0	0	0	0	0	0	0	94
12 PM	29	68	26	3	0	0	0	0	0	0	0	0	0	126
13:00	26	63	21	4	0	0	0	0	0	0	0	0	0	114
14:00	30	60	16	0	0	0	0	0	0	0	0	0	0	106
15:00	28	56	28	1	0	0	0	0	0	0	0	0	0	113
16:00	24	81	42	4	0	0	0	0	0	0	0	0	0	151
17:00	25	87	50	2	0	0	0	0	0	0	0	0	0	164
18:00	28	41	14	1	0	0	0	0	0	0	0	0	0	84
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	350	713	308	29	1	0	0	0	0	0	0	0	0	1401
Percent	25.0%	50.9%	22.0%	2.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	24 KPH
50th Percentile :	44 KPH
85th Percentile :	54 KPH
95th Percentile :	58 KPH
Mean Speed(Average) :	42 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	867
Percent in Pace :	61.9%
Number of Vehicles > 50 KPH :	338
Percent of Vehicles > 50 KPH :	24.1%

Grand Total	393	806	344	31	1	0	0	0	0	0	0	0	0	1575

Overall

15th Percentile :	24 KPH
50th Percentile :	44 KPH
85th Percentile :	54 KPH
95th Percentile :	58 KPH
Mean Speed(Average) :	42 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	978
Percent in Pace :	62.1%
Number of Vehicles > 50 KPH :	376
Percent of Vehicles > 50 KPH :	23.9%

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T 709.579.6435 | **F** 709.579.7515

Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.0128 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/26/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	19	63	47	5	0	0	0	0	0	0	0	0	0	134
20:00	15	58	36	3	0	0	0	0	0	0	0	0	0	112
21:00	12	23	18	2	0	0	0	0	0	0	0	0	0	55
22:00	2	13	4	2	0	0	0	0	0	0	0	0	0	21
23:00	1	7	9	2	0	0	0	0	0	0	0	0	0	19
Total	49	164	114	14	0	0	0	0	0	0	0	0	0	341
Percent	14.4%	48.1%	33.4%	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	40 KPH
50th Percentile :	47 KPH
85th Percentile :	56 KPH
95th Percentile :	59 KPH
Mean Speed(Average) :	46 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	221
Percent in Pace :	64.8%
Number of Vehicles > 50 KPH :	128
Percent of Vehicles > 50 KPH :	37.5%

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Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.0128 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	0	2	1	0	1	0	0	0	0	0	0	0	0	4
01:00	0	1	2	2	0	0	0	0	0	0	0	0	0	5
02:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	4	2	0	0	0	0	0	0	0	0	0	0	7
05:00	1	1	1	0	0	0	0	0	0	0	0	0	0	3
06:00	1	8	12	5	2	0	0	0	0	0	0	0	0	28
07:00	15	38	57	9	1	0	0	0	0	0	0	0	0	120
08:00	6	41	68	12	0	1	0	0	0	0	0	0	0	128
09:00	19	52	40	3	0	0	0	0	0	0	0	0	0	114
10:00	9	31	39	3	0	0	0	0	0	0	0	0	0	82
11:00	16	79	58	6	0	0	0	0	0	0	0	0	0	159
12 PM	19	81	69	4	0	0	0	0	0	0	0	0	0	173
13:00	12	71	52	4	0	0	0	0	0	0	0	0	0	139
14:00	19	83	51	5	0	0	0	0	0	0	0	0	0	158
15:00	11	74	67	7	1	0	0	0	0	0	0	0	0	160
16:00	14	86	81	20	0	0	0	0	0	0	0	0	0	201
17:00	25	64	70	10	2	1	2	0	0	0	0	0	0	174
18:00	9	39	44	4	0	0	0	0	0	0	0	0	0	96
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	177	755	715	94	7	2	2	0	0	0	0	0	0	1752
Percent	10.1%	43.1%	40.8%	5.4%	0.4%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	41 KPH
50th Percentile :	49 KPH
85th Percentile :	57 KPH
95th Percentile :	61 KPH
Mean Speed(Average) :	48 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	1113
Percent in Pace :	63.5%
Number of Vehicles > 50 KPH :	820
Percent of Vehicles > 50 KPH :	46.8%

Grand Total	226	919	829	108	7	2	2	0	0	0	0	0	0	2093

Overall

15th Percentile :	40 KPH
50th Percentile :	48 KPH
85th Percentile :	57 KPH
95th Percentile :	61 KPH
Mean Speed(Average) :	48 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	1334
Percent in Pace :	63.7%
Number of Vehicles > 50 KPH :	948
Percent of Vehicles > 50 KPH :	45.3%

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Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.0128 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Westbound, Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/26/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	41	105	58	5	0	0	0	0	0	0	0	0	0	209
20:00	26	89	48	3	0	0	0	0	0	0	0	0	0	166
21:00	15	36	23	4	0	0	0	0	0	0	0	0	0	78
22:00	7	19	10	2	0	0	0	0	0	0	0	0	0	38
23:00	3	8	11	2	0	0	0	0	0	0	0	0	0	24
Total	92	257	150	16	0	0	0	0	0	0	0	0	0	515
Percent	17.9%	49.9%	29.1%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	33 KPH
50th Percentile :	46 KPH
85th Percentile :	55 KPH
95th Percentile :	59 KPH
Mean Speed(Average) :	45 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	332
Percent in Pace :	64.5%
Number of Vehicles > 50 KPH :	166
Percent of Vehicles > 50 KPH :	32.2%

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Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.0128 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Westbound, Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
09/27/17	0	5	1	0	1	0	0	0	0	0	0	0	0	7
01:00	0	1	2	2	0	0	0	0	0	0	0	0	0	5
02:00	1	0	1	0	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	1	5	2	0	0	0	0	0	0	0	0	0	0	8
05:00	6	6	2	2	0	0	0	0	0	0	0	0	0	16
06:00	5	20	25	6	2	0	0	0	0	0	0	0	0	58
07:00	36	68	71	10	1	0	0	0	0	0	0	0	0	186
08:00	28	112	98	15	0	1	0	0	0	0	0	0	0	254
09:00	53	99	60	4	1	0	0	0	0	0	0	0	0	217
10:00	52	71	58	7	0	0	0	0	0	0	0	0	0	188
11:00	46	127	72	8	0	0	0	0	0	0	0	0	0	253
12 PM	48	149	95	7	0	0	0	0	0	0	0	0	0	299
13:00	38	134	73	8	0	0	0	0	0	0	0	0	0	253
14:00	49	143	67	5	0	0	0	0	0	0	0	0	0	264
15:00	39	130	95	8	1	0	0	0	0	0	0	0	0	273
16:00	38	167	123	24	0	0	0	0	0	0	0	0	0	352
17:00	50	151	120	12	2	1	2	0	0	0	0	0	0	338
18:00	37	80	58	5	0	0	0	0	0	0	0	0	0	180
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	527	1468	1023	123	8	2	2	0	0	0	0	0	0	3153
Percent	16.7%	46.6%	32.4%	3.9%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	35 KPH
50th Percentile :	47 KPH
85th Percentile :	56 KPH
95th Percentile :	59 KPH
Mean Speed(Average) :	45 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	1979
Percent in Pace :	62.8%
Number of Vehicles > 50 KPH :	1158
Percent of Vehicles > 50 KPH :	36.7%

Grand Total	619	1725	1173	139	8	2	2	0	0	0	0	0	0	3668

Overall

15th Percentile :	35 KPH
50th Percentile :	47 KPH
85th Percentile :	56 KPH
95th Percentile :	59 KPH
Mean Speed(Average) :	45 KPH
15 KPH Pace Speed :	41-55 KPH
Number in Pace :	2312
Percent in Pace :	63.0%
Number of Vehicles > 50 KPH :	1324
Percent of Vehicles > 50 KPH :	36.1%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's NL A1B 4J9
T 709.579.6435 | **F** 709.579.7515

Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.1280 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Start Time	26-Sep-17 Tue	Westbound	Eastbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		75	134	209
08:00		54	112	166
09:00		23	55	78
10:00		17	21	38
11:00		5	19	24
Total		174	341	
Percent		33.8%	66.2%	

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Snow's Lane Near Civic Address 80-86

Latitude: 47' 37.1280 North
Longitude: 52' 41.9449 West
Date Start: 26-Sep-17
Date End: 27-Sep-17

Start Time	27-Sep-17 Wed	Westbound	Eastbound	Combined Total
12:00 AM		3	4	7
01:00		0	5	5
02:00		1	1	2
03:00		0	0	0
04:00		1	7	8
05:00		13	3	16
06:00		30	28	58
07:00		66	120	186
08:00		126	128	254
09:00		103	114	217
10:00		106	82	188
11:00		94	159	253
12:00 PM		126	173	299
01:00		114	139	253
02:00		106	158	264
03:00		113	160	273
04:00		151	201	352
05:00		164	174	338
06:00		84	96	180
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		1401	1752	
Percent		44.4%	55.6%	
Grand Total		1575	2093	
Percentage		42.9%	57.1%	
ADT		ADT 3,721		AADT 3,721

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/10/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	5	1	0	0	0	0	0	0	0	0	0	0	0	6
15:00	7	1	0	0	0	0	0	0	0	0	0	0	0	8
16:00	8	0	0	0	0	0	0	0	0	0	0	0	0	8
17:00	12	3	0	0	0	0	0	0	0	0	0	0	0	15
18:00	5	3	1	0	0	0	0	0	0	0	0	0	0	9
19:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3
20:00	5	0	0	0	0	0	0	0	0	0	0	0	0	5
21:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
22:00	2	1	0	0	0	0	0	0	0	0	0	0	0	3
23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	48	10	1	0	0	0	0	0	0	0	0	0	0	59
Percent	81.4%	16.9%	1.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	7 KPH
50th Percentile :	24 KPH
85th Percentile :	42 KPH
95th Percentile :	48 KPH
Mean Speed(Average) :	25 KPH
15 KPH Pace Speed :	1-15 KPH
Number in Pace :	18
Percent in Pace :	30.5%
Number of Vehicles > 50 KPH :	1
Percent of Vehicles > 50 KPH :	1.7%

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Eastbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/11/17	2	0	0	0	0	0	0	0	0	0	0	0	0	2
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:00	10	0	1	0	0	0	0	0	0	0	0	0	0	11
08:00	15	9	0	0	0	0	0	0	0	0	0	0	0	24
09:00	6	1	0	0	0	0	0	0	0	0	0	0	0	7
10:00	7	1	1	0	0	0	0	0	0	0	0	0	0	9
11:00	9	1	0	0	0	0	0	0	0	0	0	0	0	10
12 PM	6	2	1	0	0	0	0	0	0	0	0	0	0	9
13:00	11	2	0	0	0	0	0	0	0	0	0	0	0	13
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	67	17	4	0	0	0	0	0	0	0	0	0	0	88
Percent	76.1%	19.3%	4.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	7 KPH
50th Percentile :	26 KPH
85th Percentile :	44 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	27 KPH
15 KPH Pace Speed :	36-50 KPH
Number in Pace :	25
Percent in Pace :	28.4%
Number of Vehicles > 50 KPH :	4
Percent of Vehicles > 50 KPH :	4.5%

Grand Total	115	27	5	0	0	0	0	0	0	0	0	0	0	147

Overall

15th Percentile :	7 KPH
50th Percentile :	25 KPH
85th Percentile :	43 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	26 KPH
15 KPH Pace Speed :	26-40 KPH
Number in Pace :	43
Percent in Pace :	29.3%
Number of Vehicles > 50 KPH :	5
Percent of Vehicles > 50 KPH :	3.4%

Harbourside Transportation Consultants
Suite 306 - Terrace on the Square
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T 709.579.6435 | **F** 709.579.7515

St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/10/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	9	0	0	0	0	0	0	0	0	0	0	0	0	9
15:00	3	0	0	0	0	0	0	0	0	0	0	0	0	3
16:00	7	3	1	0	0	0	0	0	0	0	0	0	0	11
17:00	12	1	0	0	0	0	0	0	0	0	0	0	0	13
18:00	3	3	1	0	0	0	0	0	0	0	0	0	0	7
19:00	7	1	1	0	0	0	0	0	0	0	0	0	0	9
20:00	4	1	0	0	0	0	0	0	0	0	0	0	0	5
21:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
22:00	0	1	0	0	0	0	0	0	0	0	0	0	0	1
23:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	46	10	3	0	0	0	0	0	0	0	0	0	0	59
Percent	78.0%	16.9%	5.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	7 KPH
50th Percentile :	25 KPH
85th Percentile :	44 KPH
95th Percentile :	50 KPH
Mean Speed(Average) :	27 KPH
15 KPH Pace Speed :	27-41 KPH
Number in Pace :	17
Percent in Pace :	28.8%
Number of Vehicles > 50 KPH :	3
Percent of Vehicles > 50 KPH :	5.1%

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/11/17	1	0	0	0	0	0	0	0	0	0	0	0	0	1
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
07:00	4	1	0	0	0	0	0	0	0	0	0	0	0	5
08:00	4	1	1	0	0	0	0	0	0	0	0	0	0	6
09:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
10:00	4	0	0	0	0	0	0	0	0	0	0	0	0	4
11:00	5	1	0	0	0	0	0	0	0	0	0	0	0	6
12 PM	3	2	0	0	0	0	0	0	0	0	0	0	0	5
13:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	25	6	1	0	0	0	0	0	0	0	0	0	0	32
Percent	78.1%	18.8%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	7 KPH
50th Percentile :	25 KPH
85th Percentile :	43 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	26 KPH
15 KPH Pace Speed :	36-50 KPH
Number in Pace :	9
Percent in Pace :	28.1%
Number of Vehicles > 50 KPH :	1
Percent of Vehicles > 50 KPH :	3.1%

Grand Total	71	16	4	0	0	0	0	0	0	0	0	0	0	91

Overall

15th Percentile :	7 KPH
50th Percentile :	25 KPH
85th Percentile :	43 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	26 KPH
15 KPH Pace Speed :	1-15 KPH
Number in Pace :	27
Percent in Pace :	29.7%
Number of Vehicles > 50 KPH :	4
Percent of Vehicles > 50 KPH :	4.4%

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Eastbound, Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/10/17	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	14	1	0	0	0	0	0	0	0	0	0	0	0	15
15:00	10	1	0	0	0	0	0	0	0	0	0	0	0	11
16:00	15	3	1	0	0	0	0	0	0	0	0	0	0	19
17:00	24	4	0	0	0	0	0	0	0	0	0	0	0	28
18:00	8	6	2	0	0	0	0	0	0	0	0	0	0	16
19:00	10	1	1	0	0	0	0	0	0	0	0	0	0	12
20:00	9	1	0	0	0	0	0	0	0	0	0	0	0	10
21:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
22:00	2	2	0	0	0	0	0	0	0	0	0	0	0	4
23:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	94	20	4	0	0	0	0	0	0	0	0	0	0	118
Percent	79.7%	16.9%	3.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	7 KPH
50th Percentile :	25 KPH
85th Percentile :	43 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	26 KPH
15 KPH Pace Speed :	26-40 KPH
Number in Pace :	35
Percent in Pace :	29.7%
Number of Vehicles > 50 KPH :	4
Percent of Vehicles > 50 KPH :	3.4%

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Eastbound, Westbound

Start Time	1 40	41 50	51 60	61 70	71 80	81 90	91 100	101 110	111 120	121 130	131 140	141 150	151 999	Total
10/11/17	3	0	0	0	0	0	0	0	0	0	0	0	0	3
01:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
02:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00	1	1	0	0	0	0	0	0	0	0	0	0	0	2
04:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06:00	1	0	1	0	0	0	0	0	0	0	0	0	0	2
07:00	14	1	1	0	0	0	0	0	0	0	0	0	0	16
08:00	19	10	1	0	0	0	0	0	0	0	0	0	0	30
09:00	7	2	0	0	0	0	0	0	0	0	0	0	0	9
10:00	11	1	1	0	0	0	0	0	0	0	0	0	0	13
11:00	14	2	0	0	0	0	0	0	0	0	0	0	0	16
12 PM	9	4	1	0	0	0	0	0	0	0	0	0	0	14
13:00	12	2	0	0	0	0	0	0	0	0	0	0	0	14
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	92	23	5	0	0	0	0	0	0	0	0	0	0	120
Percent	76.7%	19.2%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	

Daily

15th Percentile :	7 KPH
50th Percentile :	26 KPH
85th Percentile :	44 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	27 KPH
15 KPH Pace Speed :	36-50 KPH
Number in Pace :	34
Percent in Pace :	28.3%
Number of Vehicles > 50 KPH :	5
Percent of Vehicles > 50 KPH :	4.2%

Grand Total	186	43	9	0	0	0	0	0	0	0	0	0	0	238

Overall

15th Percentile :	7 KPH
50th Percentile :	25 KPH
85th Percentile :	43 KPH
95th Percentile :	49 KPH
Mean Speed(Average) :	26 KPH
15 KPH Pace Speed :	1-15 KPH
Number in Pace :	70
Percent in Pace :	29.4%
Number of Vehicles > 50 KPH :	9
Percent of Vehicles > 50 KPH :	3.8%

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Start Time	10-Oct-17 Tue	Eastbound	Westbound	Combined Total
12:00 AM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
12:00 PM		*	*	*
01:00		*	*	*
02:00		*	*	*
03:00		8	3	11
04:00		8	11	19
05:00		15	13	28
06:00		9	7	16
07:00		3	9	12
08:00		5	5	10
09:00		1	1	2
10:00		3	1	4
11:00		1	0	1
Total		53	50	
Percent		51.5%	48.5%	

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St. Francis Road (R2)
Near Civic Address 14
Latitude: 47' 38.2442 North
Longitude: 52' 41.7095 West
Date Start: 10-Oct-17
Date End: 11-Oct-17

Start Time	11-Oct-17 Wed	Eastbound	Westbound	Combined Total
12:00 AM		2	1	3
01:00		0	1	1
02:00		0	0	0
03:00		2	0	2
04:00		0	0	0
05:00		0	0	0
06:00		1	1	2
07:00		11	5	16
08:00		24	6	30
09:00		7	2	9
10:00		9	4	13
11:00		10	6	16
12:00 PM		9	5	14
01:00		13	1	14
02:00		*	*	*
03:00		*	*	*
04:00		*	*	*
05:00		*	*	*
06:00		*	*	*
07:00		*	*	*
08:00		*	*	*
09:00		*	*	*
10:00		*	*	*
11:00		*	*	*
Total		88	32	
Percent		73.3%	26.7%	
Grand Total		141	82	
Percentage		63.2%	36.8%	
ADT		ADT 239		AADT 239

Appendix C

Visum Model Calibration

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04 May 2018

HTC Project: 172055

Town of Logy Bay-Middle Cove-Outer Cove
744 Logy Bay Road
Logy Bay-Middle Cove-Outer Cove, NL
A1K 3B5

T. 709.726.7930 x 22 | F. 709.726.2178
E. adelecarruthers@lbmcoc.ca

Attention: Adele Carruthers
Town Clerk/Manager

Re: Logy Bay-Middle Cove-Outer Cove Transportation Study – PTV Visum Model Calibration

Ms. Carruthers,

The 2025 St. John's Regional Visum Models were reviewed and calibrated as part of the Logy Bay-Middle Cove-Outer Cove (LBMCOC) Transportation Study. The 2025 Visum models were created in 2010 from an older QRS-II model and 2002 Census data, the models are a projection of future traffic conditions based on development projections. The models encompass the City of St. John's and surrounding areas.

In order to calibrate the model, a number of changes were made to the model's traffic analysis zones (TAZ) that encompass the Town of LBMCOC. The Town of LBMCOC consists of a total of three (3) existing zones within the 432-zone model. The changes and the rationale behind the changes are documented in the following sections.

Road Network Adjustments

The models' road network was updated to reflect the existing road network and proposed new roadways within the Town. Road network attributes including the number of lanes, speed and capacity per hour were reviewed and adjusted as necessary.

Zone Adjustments

The land use data for the three (3) zones within the Town were reviewed. The following attributes were reviewed for each zone:

- Dwelling units
- Jobs (retail jobs, medical jobs, service jobs, education jobs and industrial jobs)

Dwelling Unit Calibration

To calibrate the dwelling units, data from the 2025 models were compared to 2016 Census data and current development projections. Given that the models were developed based on 2002 Census data, comparing these data to more recent Census data allows to establish if the development projections were adequate compared the level of development that has occurred to date.

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The Visum zones were matched to the 2016 Census Dissemination Areas (DA). Dissemination Areas are defined by Statistics Canada as a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks. It is the smallest standard geographic area for which all census data are disseminated. For the purpose of transportation modelling, DA's are typically broken down in smaller zones to allow for better distribution of traffic onto the road network.

A DA typically consists of one or two Visum zones, however in the LBMCOC area of the model, only one zone was used to represent each DA. The comparison of the 2025 Visum dwelling unit projections to the 2016 Census are shown in Table 1. The comparison shows that the 2025 Visum projections underestimated dwelling units in the Town; the projections for 2025 are lower than existing conditions.

Table 1: Comparison of the 2025 Visum Model dwelling unit data to the 2016 Census data

2016 Census		Visum 2025		Difference from 2016 Census
Dissemination Area	Dwelling Units	Zone	Dwelling Units	
10010777	272	485	193	-79
10010794	174	-	-	-174
10010795	198	503	322	124
10010796	183	504	147	-36
Total	**827**		**662**	**-165**

A new zone was added to the model (Zone 481) based on DA 10010794 which was not included in the original model. The new zone, shown in Figure 1, encompasses the area east of Marine Drive and the northern area of the Town.

For the purpose of this study, all future development will be incorporated into the model by creating new zones, therefore, to calibrate the 2025 model, the existing zones had to be adjusted to reflect existing 2016 conditions. The 2025 Visum model was modified to reflect the new dwelling unit totals for each zone, which are shown in Table 2.

Table 2: Adjustments to existing 2025 Visum Model – Dwelling Units

Zone	Original 2025 Visum Model	Adjusted 2025 Visum Model
	Dwelling Units	Dwelling Units
485	193	272
481	-	174
503	322	198
504	147	183
Total	662	827

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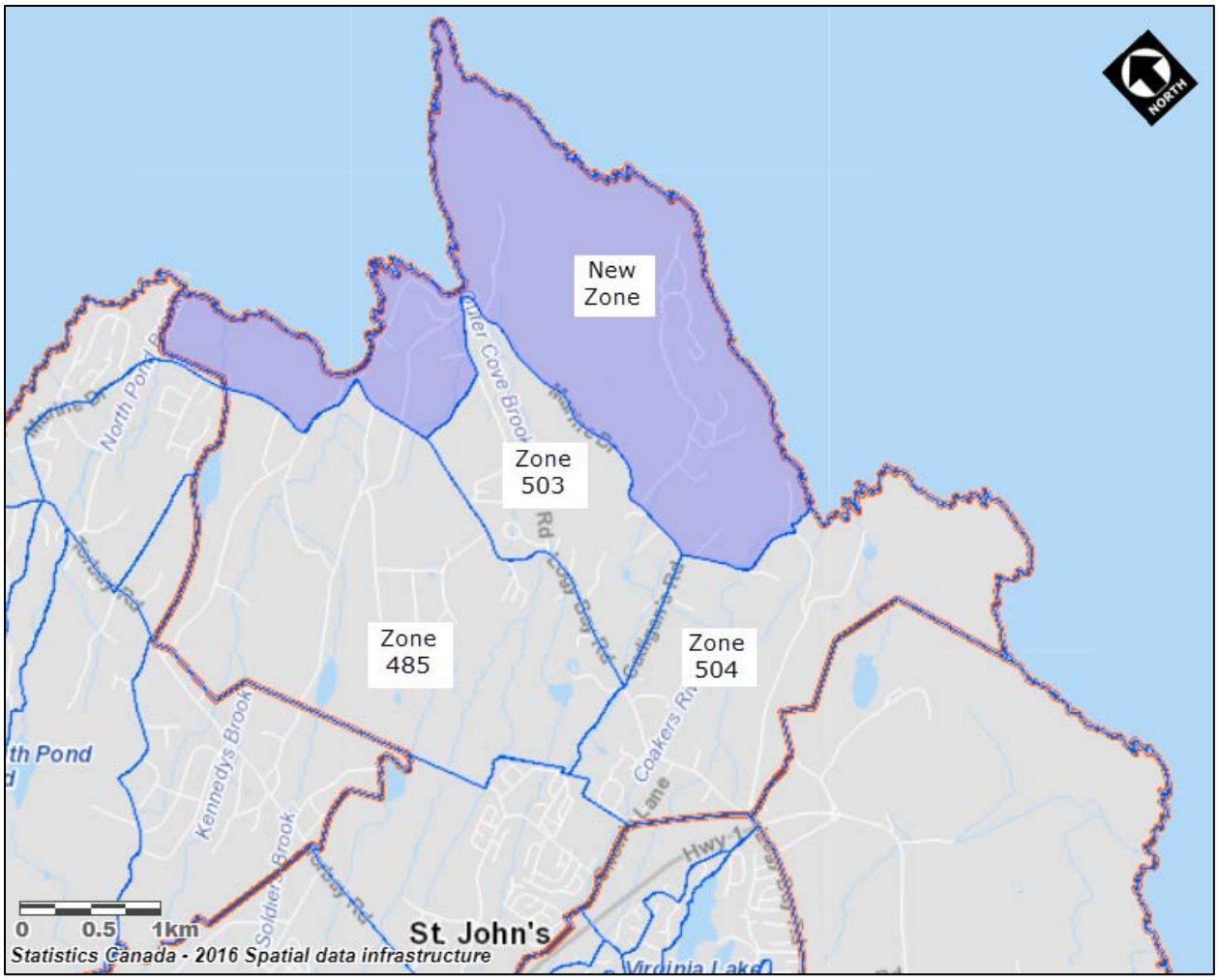

Figure 1: New zone added to the 2025 Visum model

Multipoint Assignment Adjustments

Traffic associated with each zone is distributed to the road network along defined multipoint assignments (MPAs). The MPAs are manually coded for each zone based on existing travel patterns and local knowledge of the study area. The MPAs for each zone were adjusted from one MPA per zone in the original model to 3-6 MPAs per zone as shown in Figure 2.

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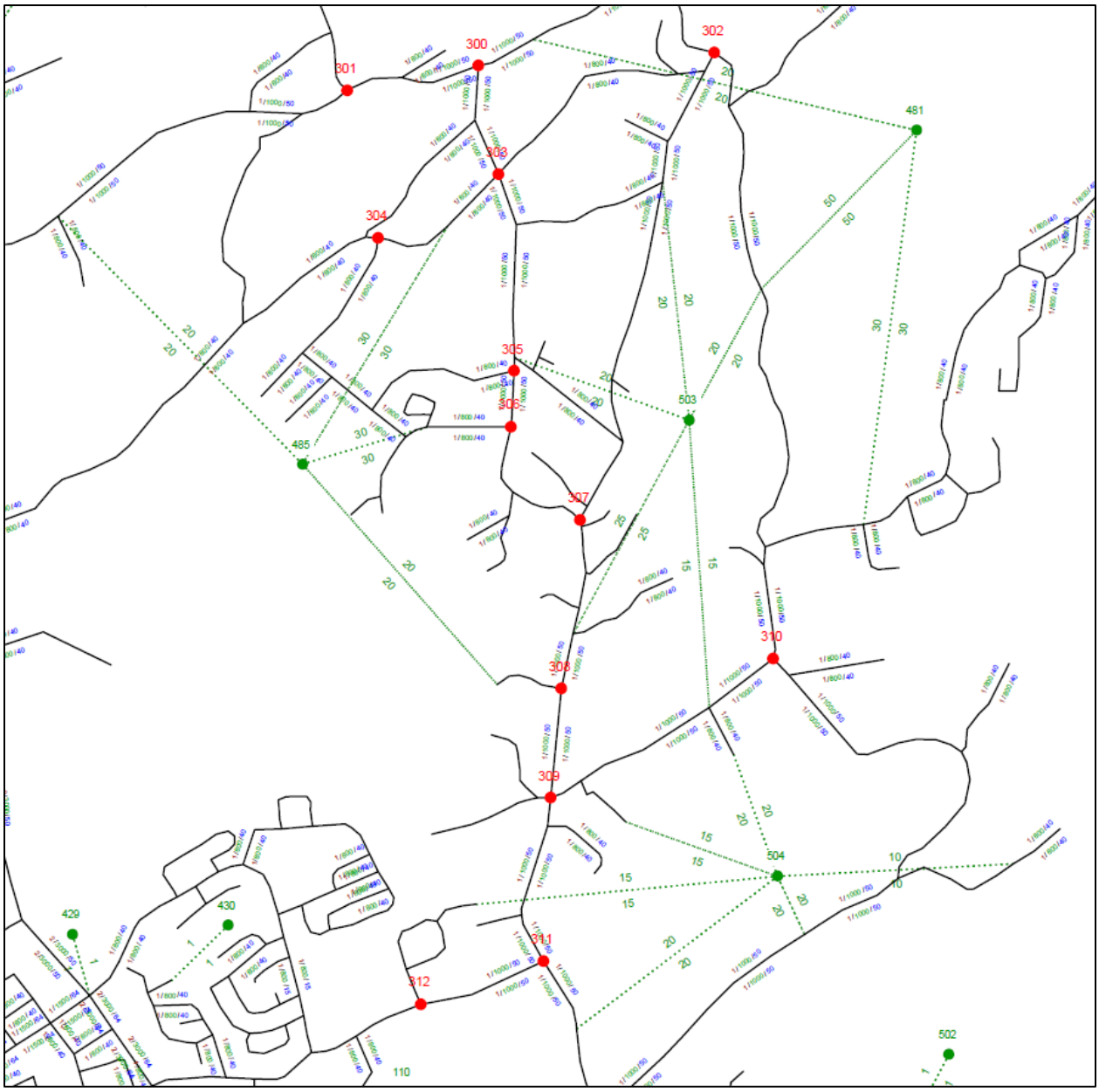

Figure 2: Adjusted multipoint assignments

Job Calibration

The original 2025 Visum model's job allocations were reviewed within the Town of LBMCOC. Job types included in the model are medical, retail, service, education and industrial jobs. In order to calibrate the job allocations within the Town, the major businesses in each zone were identified using Google Maps and the number and type of jobs for each business were estimated. The assumptions used for various businesses or employment centres in LBMCOC are detailed in Table 3.

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Table 3: Assumptions for businesses and employment centre

Business Type/Employment Centre	# of Jobs	Job Type
Convenience store/gas bar	5	Retail
Auto shop	5	Service
Church	5	Service
Town Hall	10	Service
Miscellaneous small business	5	Service
Clovelly Stables	50	Service

For education jobs, staff information for the St. Francis of Assisi School was obtained from the Town. A total of 35 education jobs were included in the appropriate zone of the model. Education jobs were also estimated for the MUN Ocean Science Centre, based on the number of parking spaces and the occupancy of the spaces on aerial imagery, 50 jobs were assumed for the facility. The original and adjusted 2025 Visum model input for job are shown in Table 4. The original model overestimated the number of jobs within the Town.

Table 4: Adjustments to existing 2025 Visum model – Jobs

Original 2025 Visum							Adjusted 2025 Visum Model						
Zone	Retail	Medical	Service	Education	Industrial	Total	Zone	Retail	Medical	Service	Education	Industrial	Total
485	0	0	40	0	40	80	**485**	5	0	55	35	0	95
481	0	0	0	0	0	0	**481**	0	0	5	0	0	5
503	0	0	90	30	60	180	**503**	0	0	20	0	0	20
504	0	0	150	70	0	220	**504**	5	0	15	50	0	70
						480							**190**

Development Projections

Through discussions with the Town and developers, projections for the level of residential were developed. Future development in the Town will be located in the central area of the Town.

The proposed development plan for the area is shown in Figure 3. The development includes residential land uses only, including single-family detached housing and senior adult housing. In total 268 dwelling units are proposed, a breakdown of dwelling units by property is shown in Table 2. The area can be divided into two areas, the area north of the Power Estate property and the area south of the Power Estate property. The Power Estate property includes a stream and wet area, development is not expected to occur on this property in the next 10 years.

The area to the north of the Power Estate property includes the Russel Caddigan property and the remaining lots to be developed in the Pine Line Holdings and Eaglewood Estates subdivision. As of the fall of 2017, approximately 50 lots remain to be developed this area. A total of 114 single-family and 82 senior adult dwelling units are proposed for the area north of the Power Estate property.

The area to the south of the Power Estate property includes the Basil Dobbin, Sylvester and O'Brien properties. A total of 72 single-family dwelling units are proposed for the area south of the Power Estate property.

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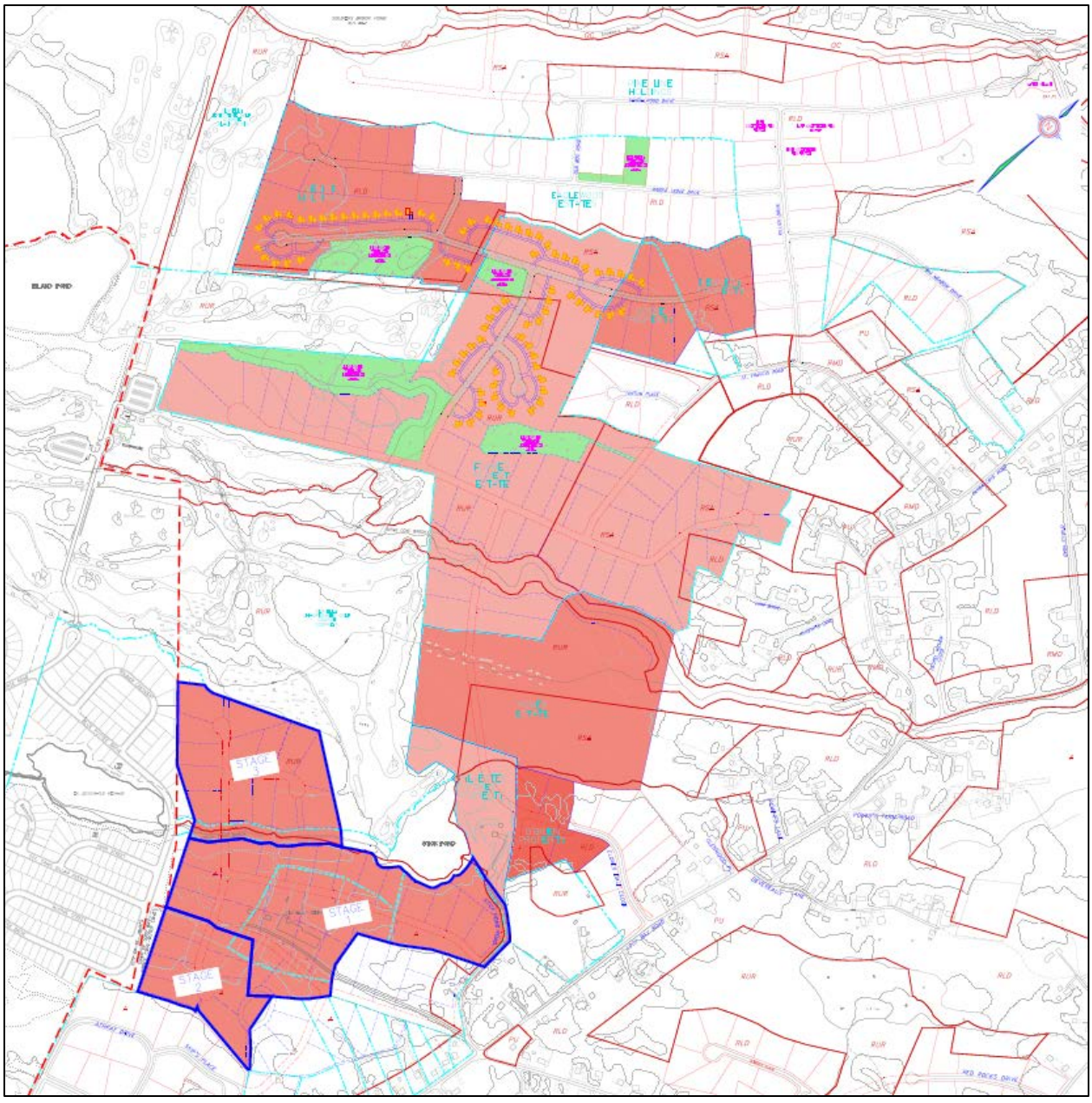

Figure 3: Development Plan

Four new TAZs were created to incorporate these projections into the model. The four new project zones listed below were coded using the trip generation rates from the *Trip Generation Manual (10th edition)* published by the Institute of Transportation Engineers (ITE) shown in Table 5.

- Zone 911– North of Power Estate Property (0-5 year projection)
- Zone 912 – South of Power Estate Property (0-5 year projection)
- Zone 913 – North of Power Estate Property (5-10 year projection)
- Zone 914 –South of Power Estate Property (5-10 year projection)

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Table 5: Trip generation rates for the project zones

Use	Number	Unit	ITE Code	AM Peak Rate	AM Peak Trip Gen	AM Peak In	AM Peak Out	PM Peak Rate	PM Peak Trip Gen	PM Peak In	PM Peak Out
Zone 911 - North of Power Estate (0-5 yr)											
Single Family Detached Housing	68	DU	210	0.74	51	13	38	0.99	68	43	25
Seniors Adult Housing - Detached	82	DU	251	0.24	20	7	13	0.30	25	16	9
Total Trips Zone 911					**71**	**20**	**51**		**93**	**59**	**34**
Zone 912 - South of Power Estate (0-5 yr)											
Single Family Detached Housing	27	DU	210	0.74	20	5	15	0.99	27	18	9
Total Trips Zone 912					**20**	**5**	**15**		**27**	**18**	**9**
Zone 913 - North of Power Estate (5-10 yr)											
Single Family Detached Housing	46	DU	210	0.74	35	9	26	0.99	46	29	17
Total Trips Zone 913					**35**	**9**	**26**		**46**	**29**	**17**
Zone 914 - South of Power Estate (5-10 yr)											
Single Family Detached Housing	45	DU	210	0.74	34	9	25	0.99	45	29	16
Total Trips Zone 914					**34**	**9**	**25**		**45**	**29**	**16**

The trips associated with each zone were distributed to the road network along defined multipoint assignments (MPAs). The MPAs were manually coded for each zone based on existing travel patterns and local knowledge of the study area. The MPAs for the new project zones are shown in Figure 4.

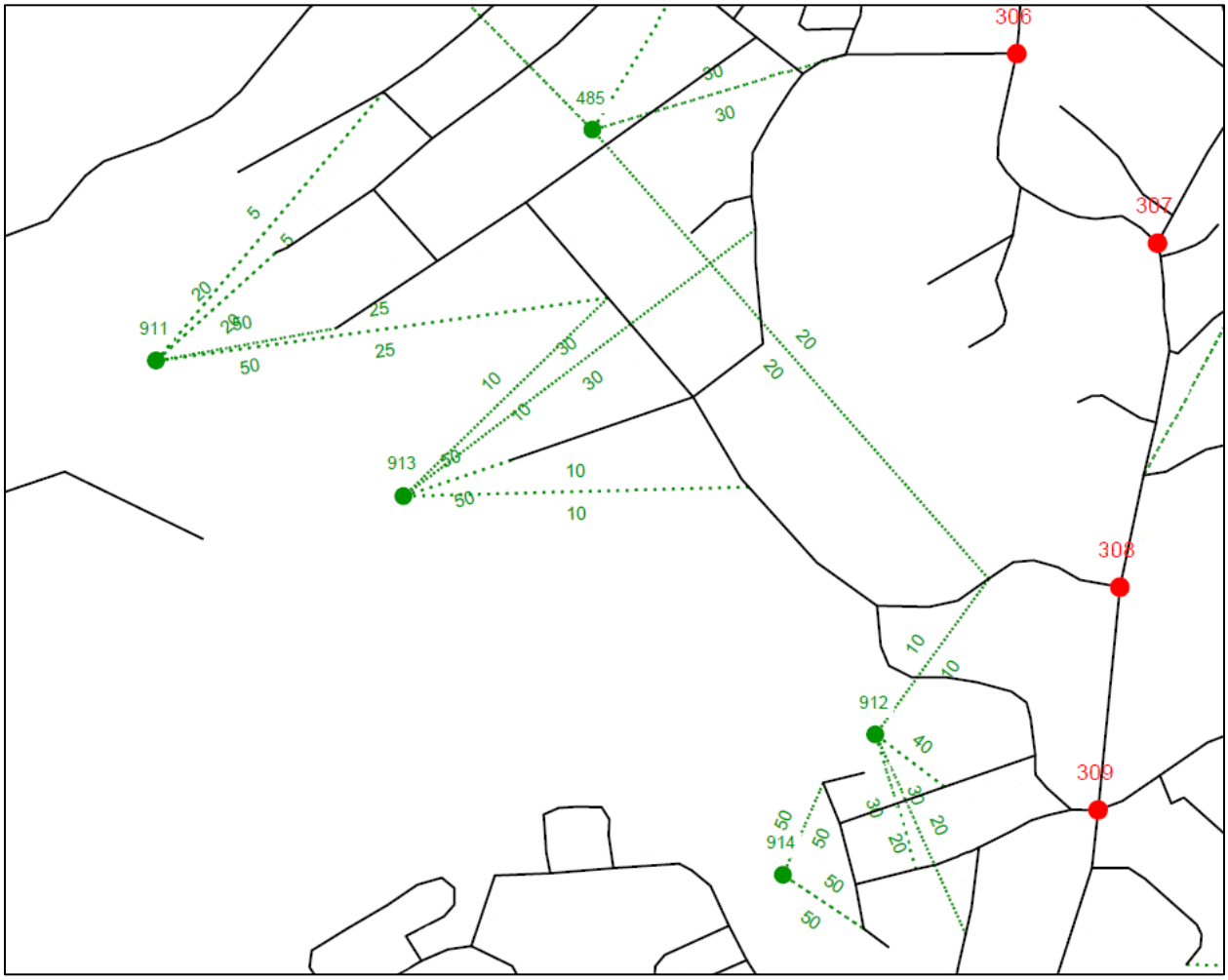

Figure 4: Multipoint assignments for project zones

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Network Volumes

Trips are distributed between the zones using the Gravity Model based on Newton's universal law of gravitation. The Gravity Model is built on the theory that, all else being equal, the attraction between two masses will be proportional to the size of the masses and inversely proportional to the distance between the masses. Visum uses the number of trips to reflect the size of the mass and route travel time to reflect the distance between the masses. The model has parameters to adjust these relationships for each trip purpose.

The Town of LBMCOC is located near the north edge of the Visum model, due to limitations of the Gravity Model, trip distributions near the model's edge can be distorted.

To calibrate the network volumes, the model was scaled down to reflect existing conditions (i.e. turning off the development projections, Team Gushue Highway, etc.). The network volumes from this "existing" model were reviewed and compared to the 2017 traffic count data to ensure they reflect existing travel patterns within the Town.

The review indicated that the volumes produced by the model in the LBMCOC area were significantly lower than 2017 traffic count data. A number of calibration exercises were completed in attempt to increase volumes and calibrate trip distributions in the area, including:

- Adding three extra gates to the model to properly model trips through the study area (Gates 901, 902 and 903),
- Consolidating zone connectors in areas surrounding the study area, and
- Further refining the link attributes within the study area.

Through each calibration exercise, the models' volumes were compared to the 2017 traffic count data. The steps noted above significantly increased traffic volume. However, after a number of calibration iterations, additional changes made to the model no longer improved the traffic volumes in the study area. Traffic volumes produced by the model are lower than 2017 traffic count data on the following roads:

- Marine Drive (from the Town Boundary with Torbay to Outer Cove Road)
- Outer Cove Road
- Logy Bay Road
- Snow's Lane

The primary reason for this discrepancy is that the model does not include portions of the Torbay located north of the Town boundary on Marine Drive and other areas to the north. While the model does account for a through pattern from the few zones in Torbay travelling from Marine Drive through to Logy Bay Road, the volumes associated with this through pattern are significantly are underrepresented when compared to traffic count data. As a result, lower volumes are observed in the models travelling north-south along Marine Drive, Outer Cove Road and Logy Bay Road in both peak hours. In order to properly reflect this travel pattern, an extensive traffic data collection effort would be required in Torbay area to update and calibrate trips external to the model. This was outside the scope of this study.

Lower volumes are also observed on Snow's Lane in the models. The primary reason for this discrepancy is that the adjacent areas in St. John's and Torbay have not been updated and calibrated. Due to the number of zones included in this area this would require extensive data collection and modelling efforts which were

considered outside the scope of this study. While the volumes on Snow's Lane are low, the model does accurately show a significant proportion of traffic travelling to/from St. Johns on Snow's Lane.

In conclusion, while the output volumes from the calibrated Visum models are lower on some roadways, the travel patterns produced by the models reflect the existing travel patterns observed in traffic counts. The main patterns observed in both the Visum models and the traffic counts include:

- The majority of vehicles travel southbound along Logy Bay Road in the AM peak hour and northbound along Logy Bay Road in the PM peak hour.
- Higher proportions of vehicles east of Logy Bay Road will travel to and from Logy Bay Road via Cadigan's Road rather than Marine Drive.
- Snow's Lane is a primary route for vehicles travelling to and from areas of St. John's to the west.

Volumes directly obtained from the St. John's Regional Visum Models are not typically used for analysis purposes. The models were developed based on 2002 Census data and since large portions of the models have not been updated, accurate traffic volumes can not necessarily be produced. Rather, the models are used to establish travel patterns, distribute new traffic for future developments and perform travel time analyses. This also applies to the version calibrated for this study. While the calibrated models reflect the appropriate travel patterns in LBMCOC, direct volume outputs for the overall models should not be used for the reasons noted above.

Since the network volumes reflect existing travel patterns, the model was restored to future conditions and used in the analysis to distribute future traffic.

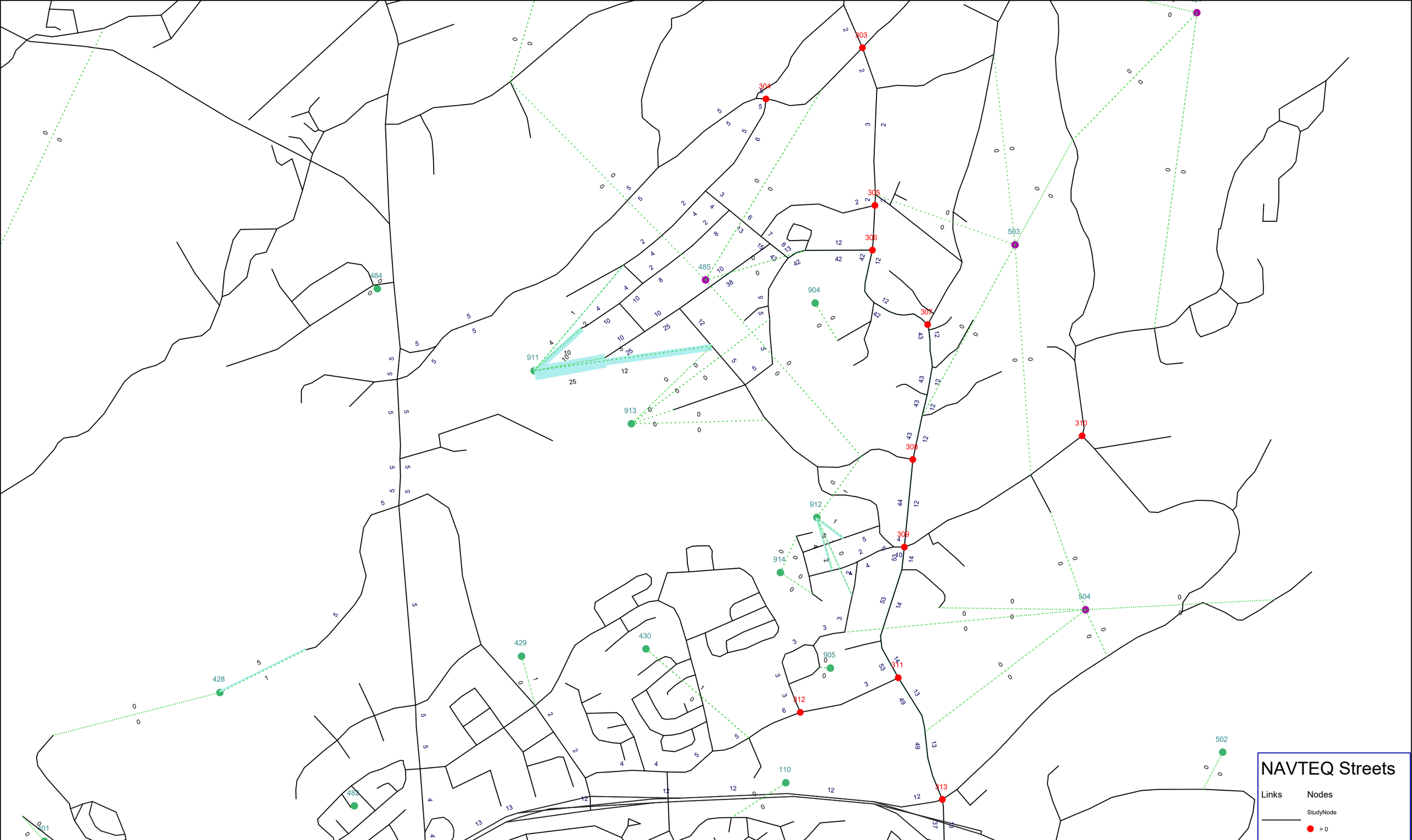
Select Zone Analysis for Project Zones

The "select zone analysis" feature of the software was used to obtain traffic volumes at intersections in the model that are associated with the specified zones. Three select zone analyses were run, one to represent 0-5 year development projections (Zones 911 & 912) without the connection through the Power Estate, one to represent 0-5 year development projections (Zones 911 & 912) with the connection through the Power Estate and one to represent the 5-10 year development projections (Zones 913 & 914) with the connection through the Power Estate. Results of the select zone analysis are enclosed with this memo.

Yours truly,

Harbourside Transportation Consultants
Robin King, P. Eng.
Senior Transportation Engineer, Principal
P: 709.579.6435
E: rking@harboursideengineering.ca

Encl: Select Zone Analyses



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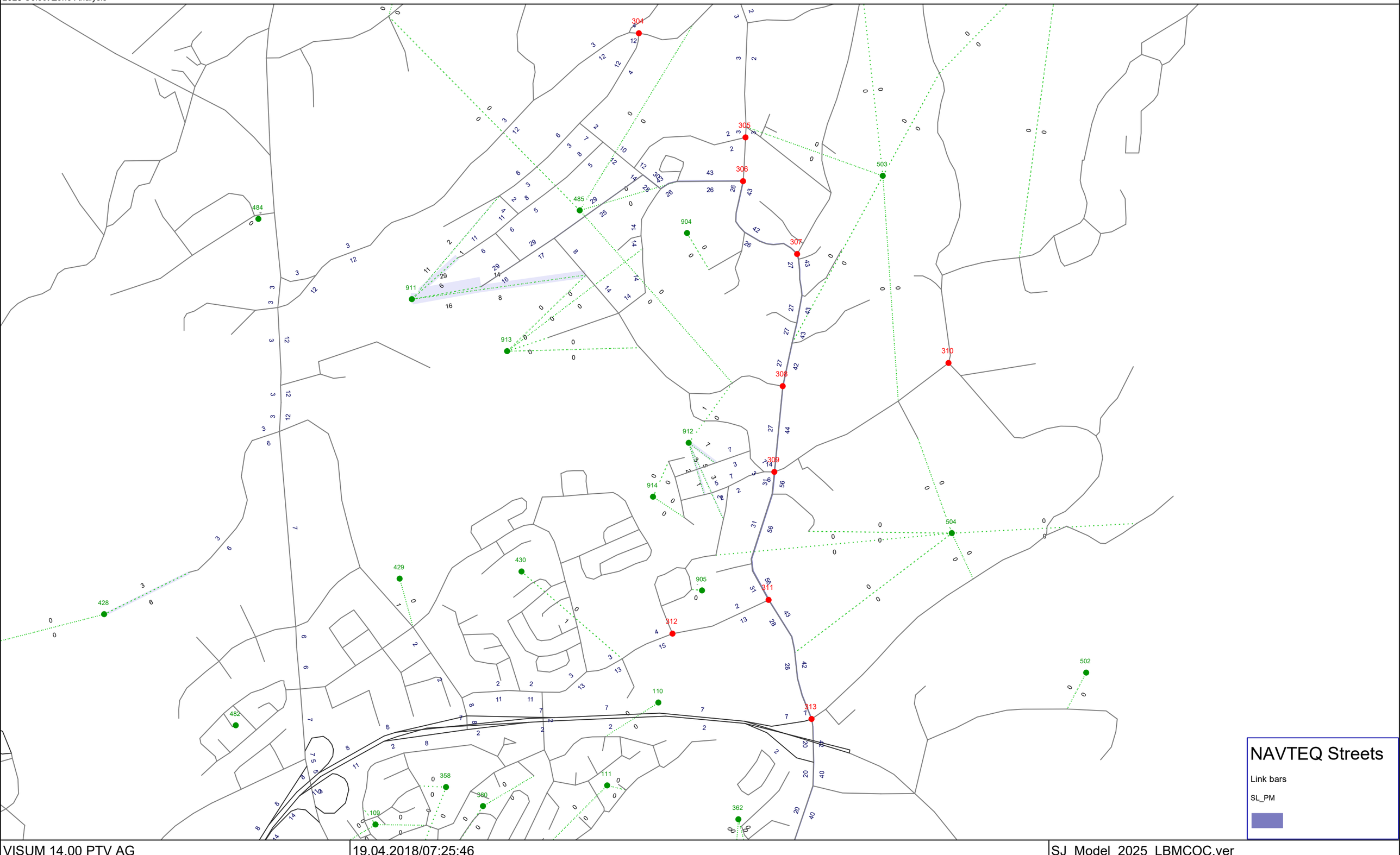
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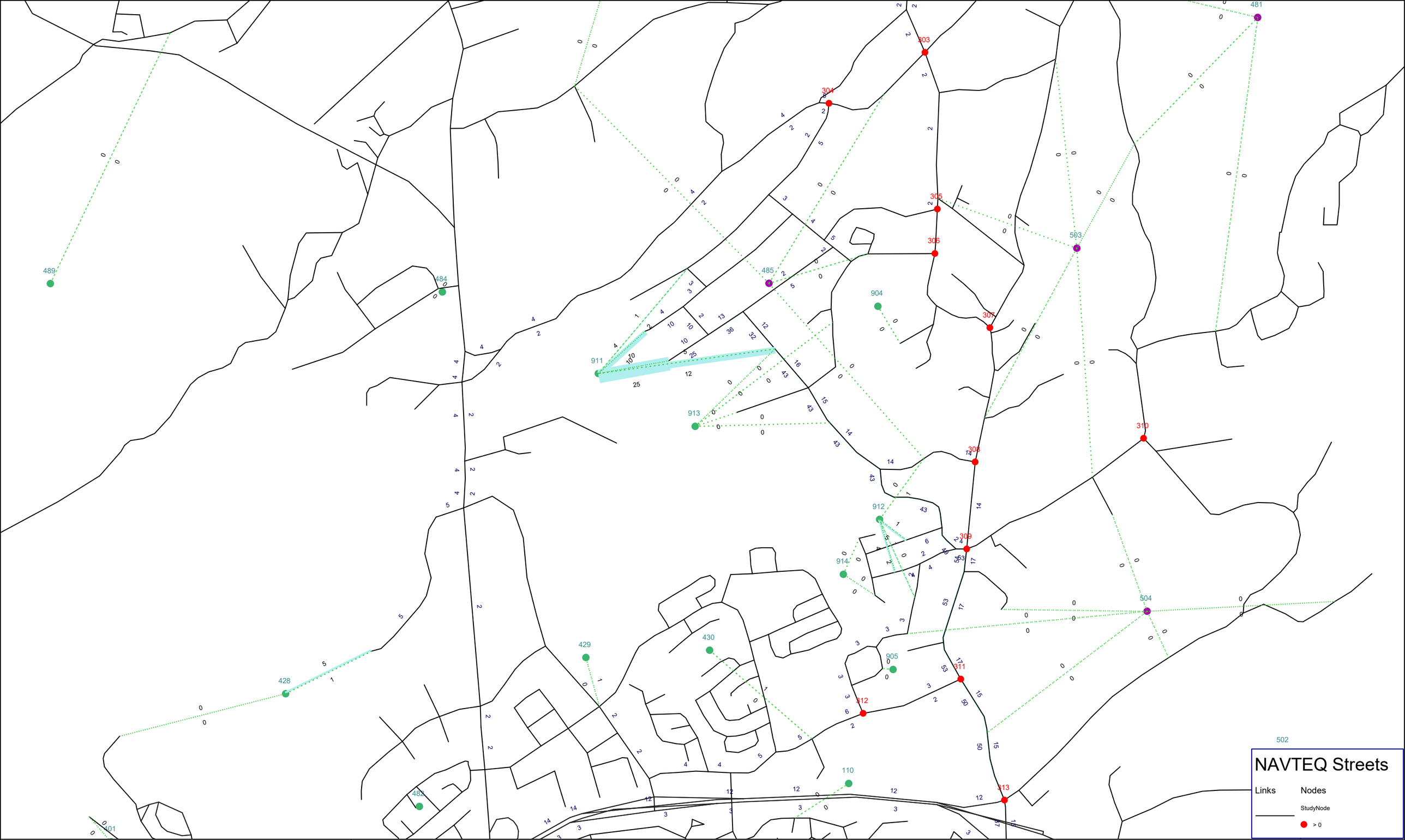
NAVTEQ Streets
Link bars
SL_PM



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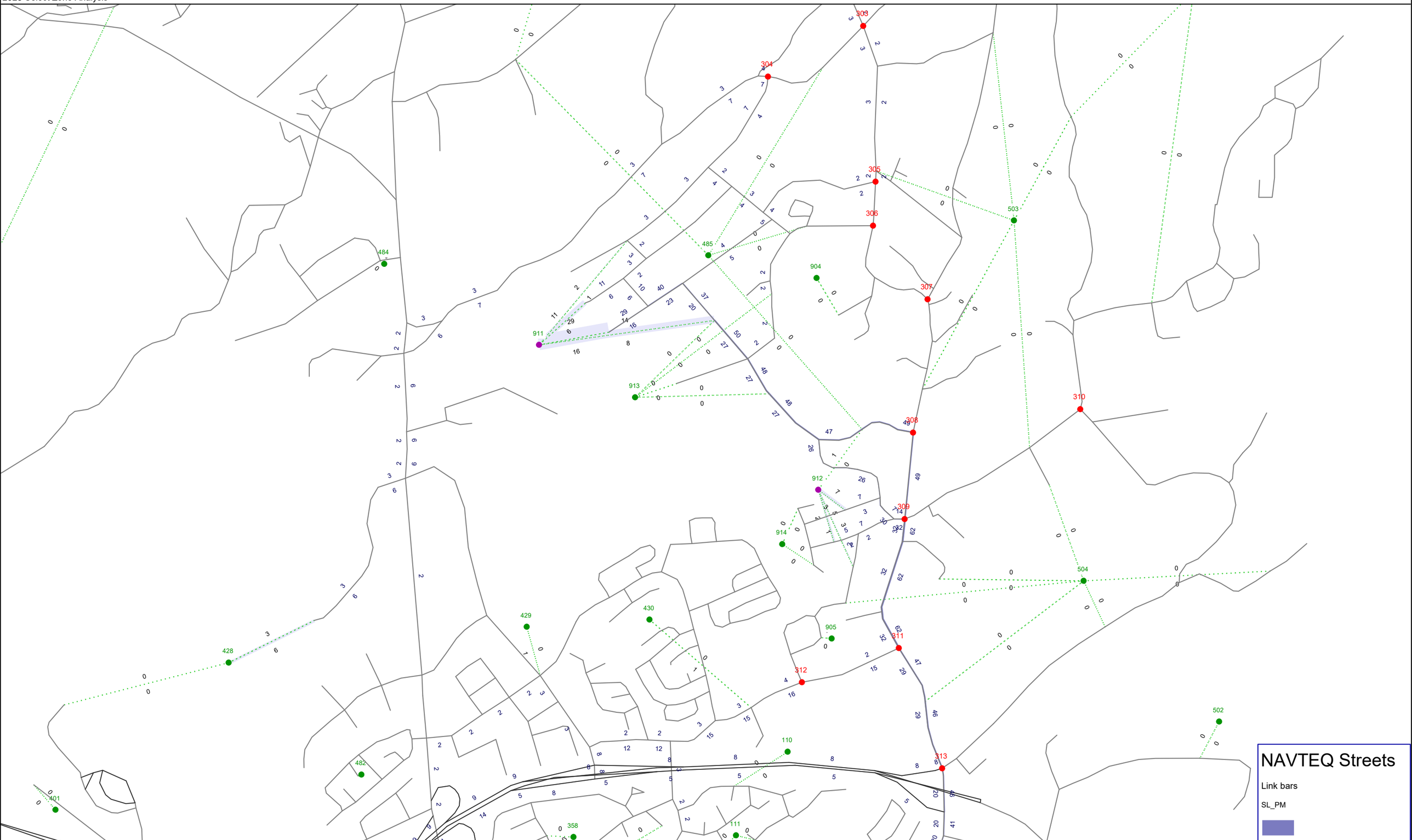
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Link bars
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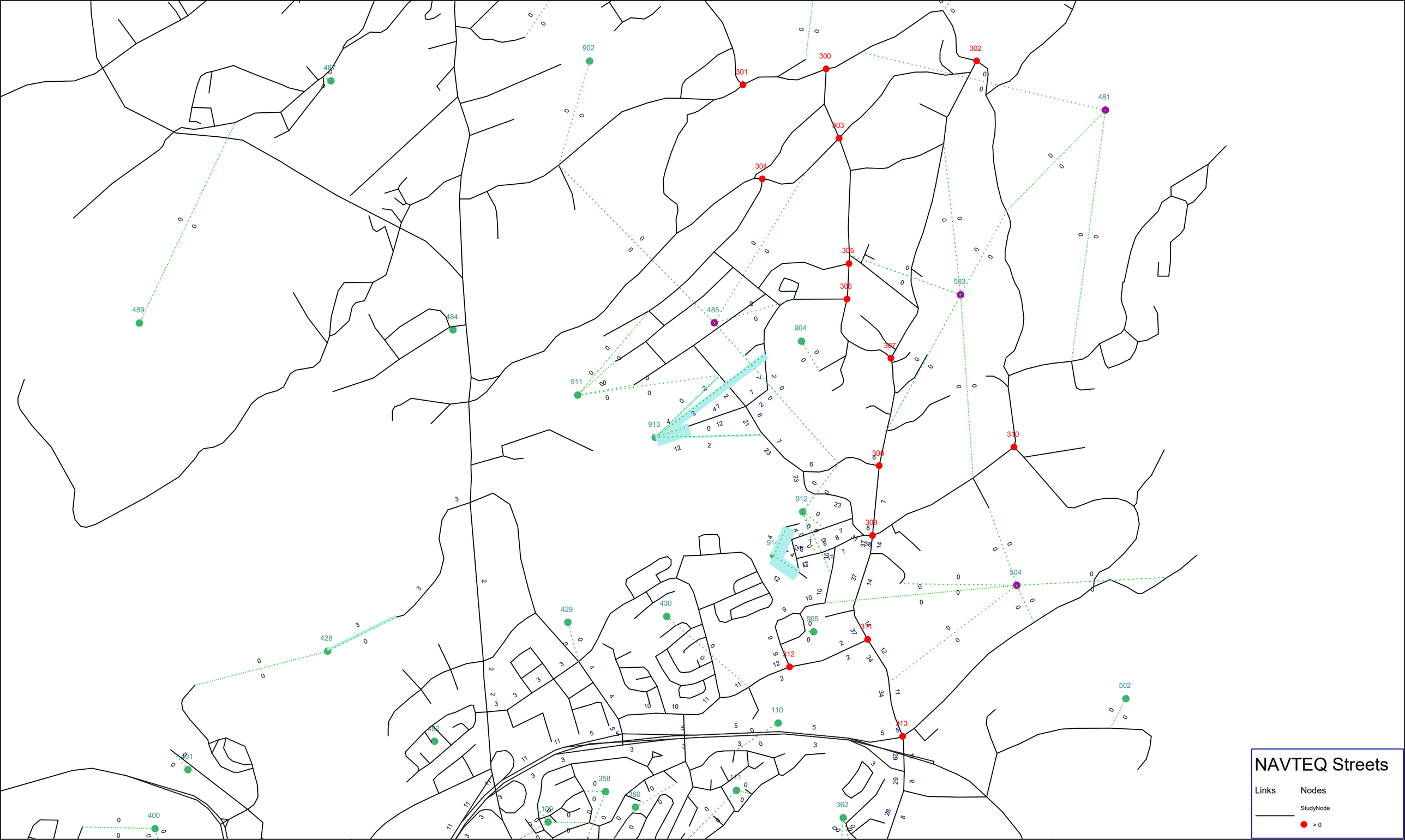

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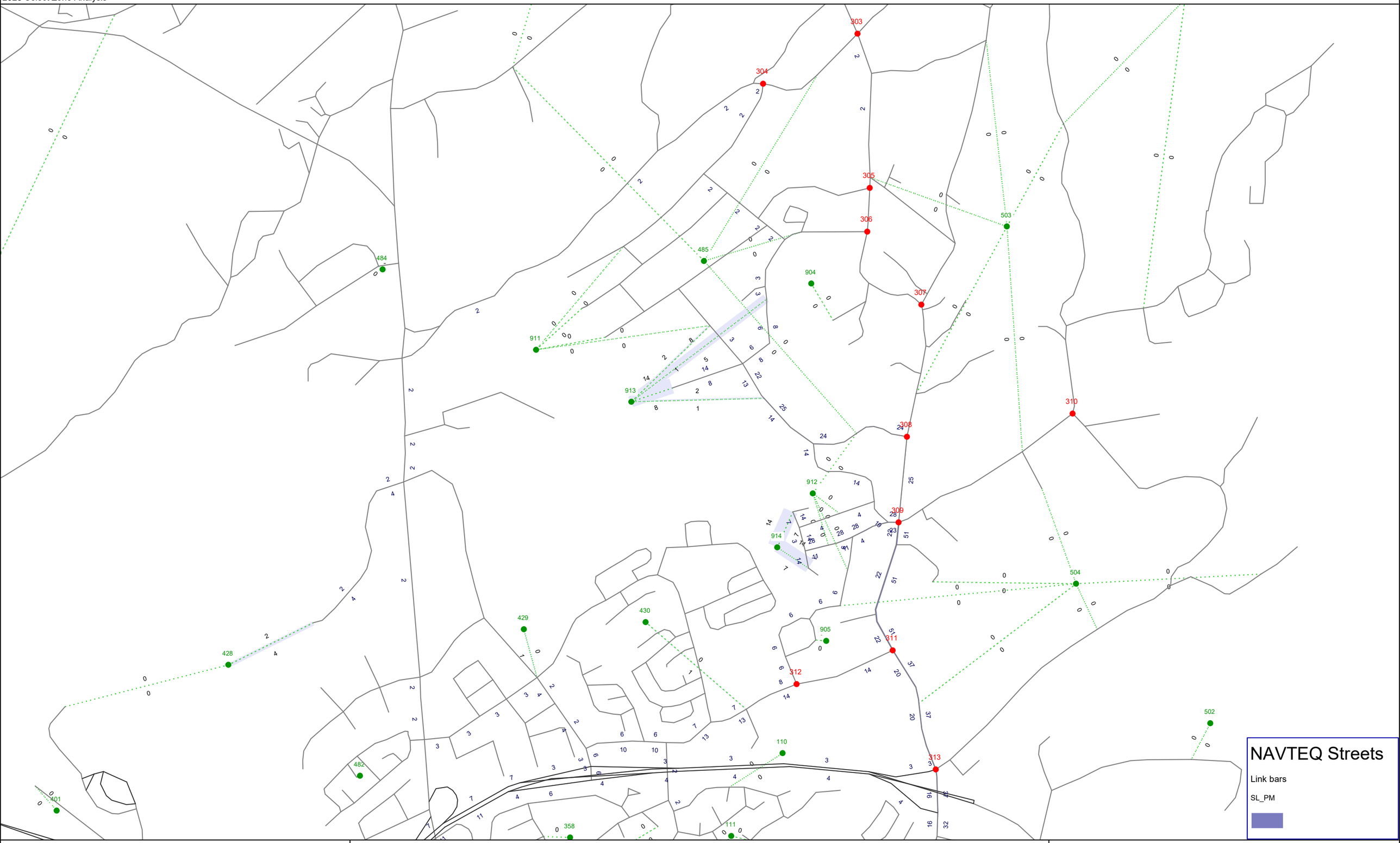
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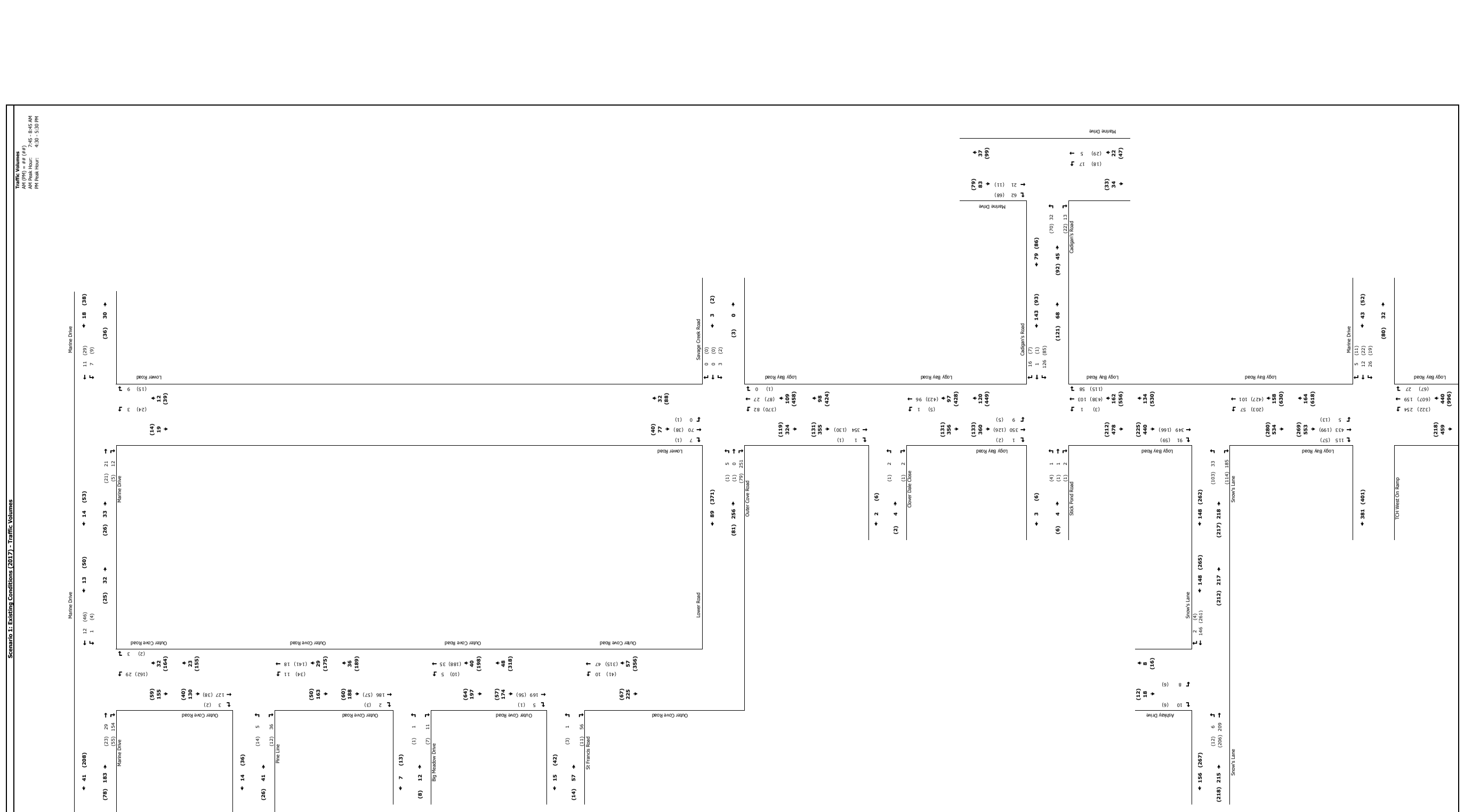
110
502
NAVTEQ Streets
Link bars
SL_PM

Appendix D

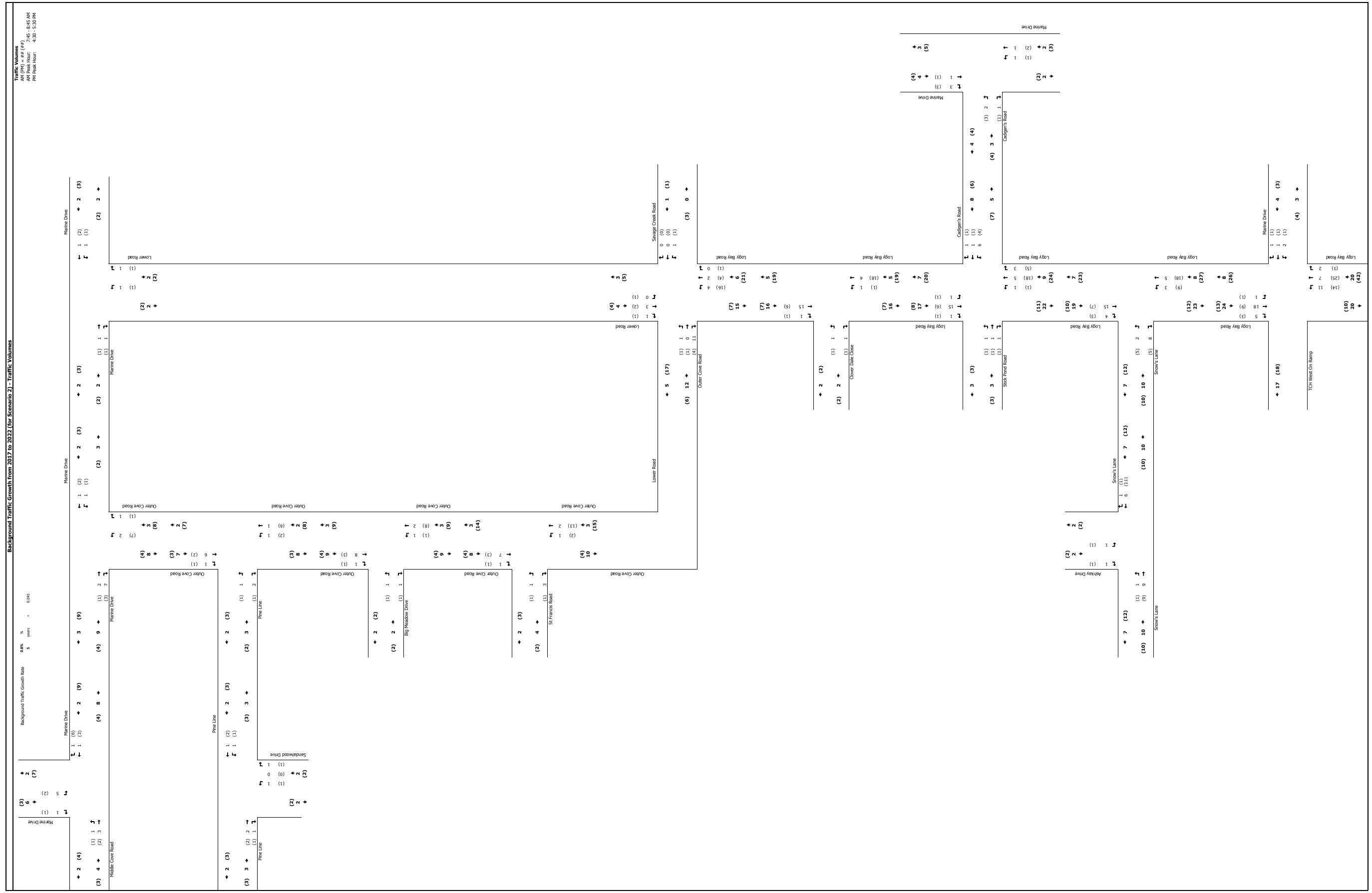
Design Volumes

Scenario 1: Existing Conditions (2017) - Traffic Volumes

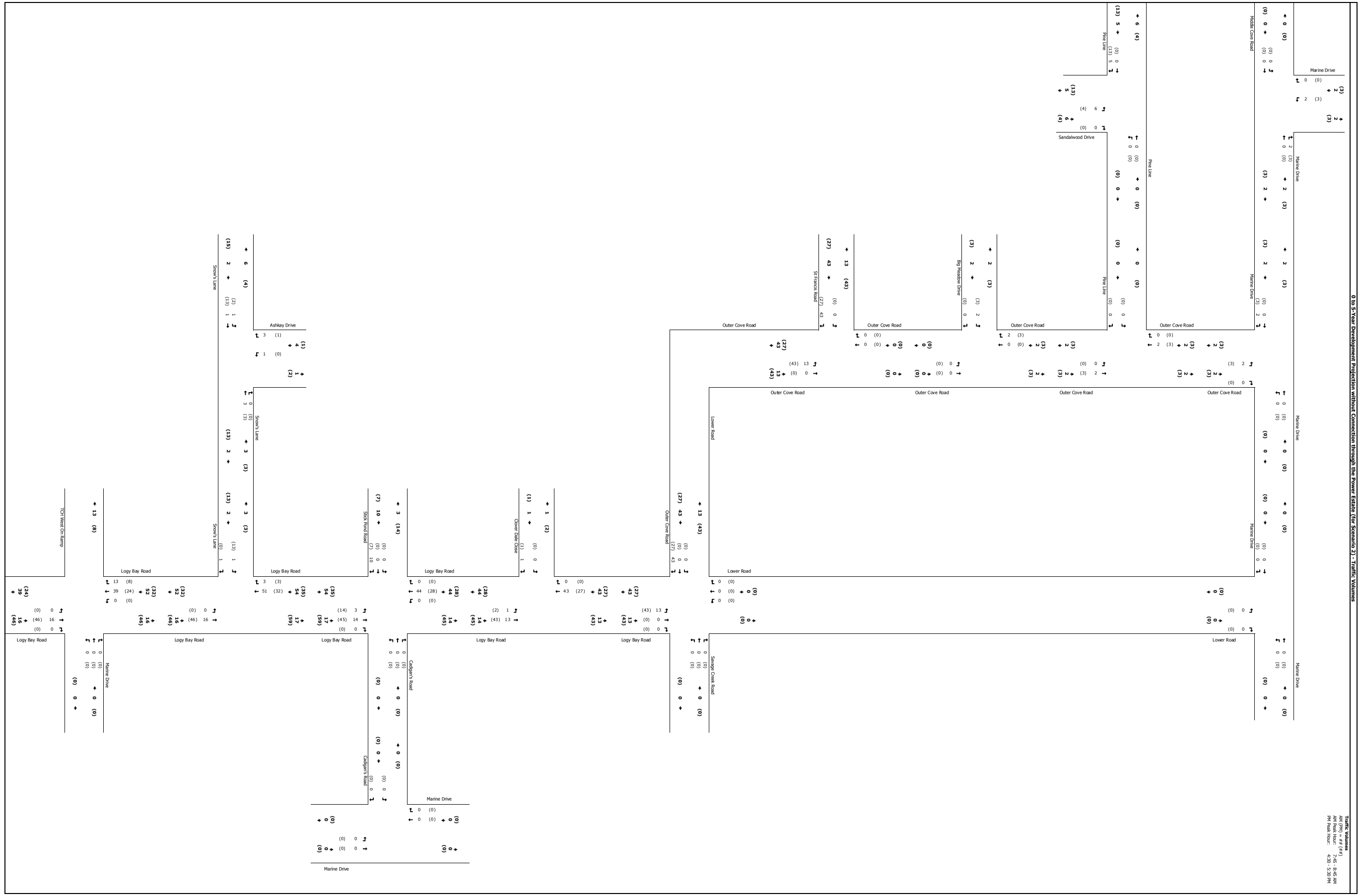
Traffic Volumes
AM Peak Hour: 7:45 - 8:45 AM
PM Peak Hour: 4:30 - 5:30 PM



Background Traffic Growth from 2017 to 2022 (for Scenario 2) - Traffic Volumes

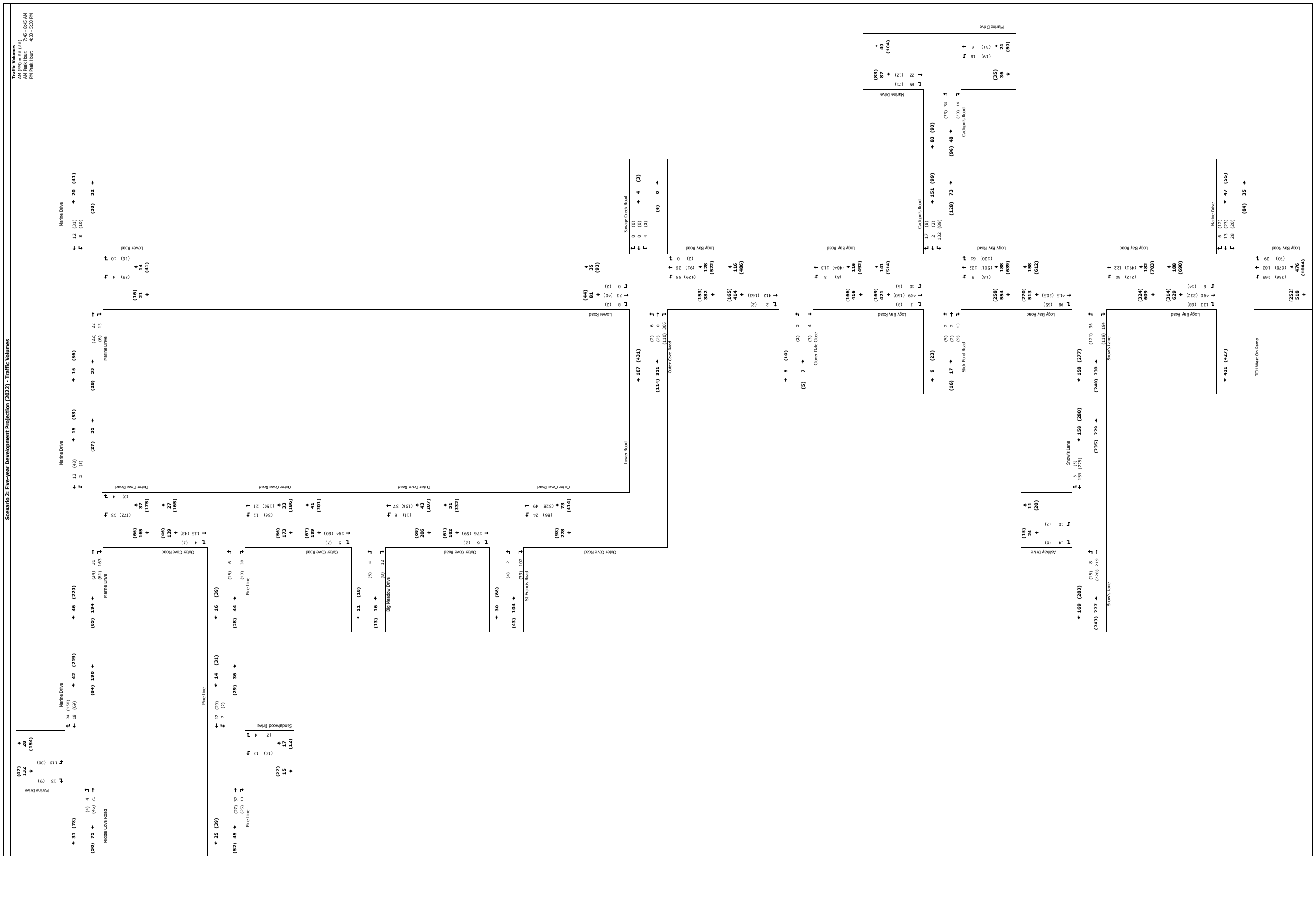


0 to 5-Year Development Projection without Connection through the Power Estate (for Scenario 2) - Traffic Volumes

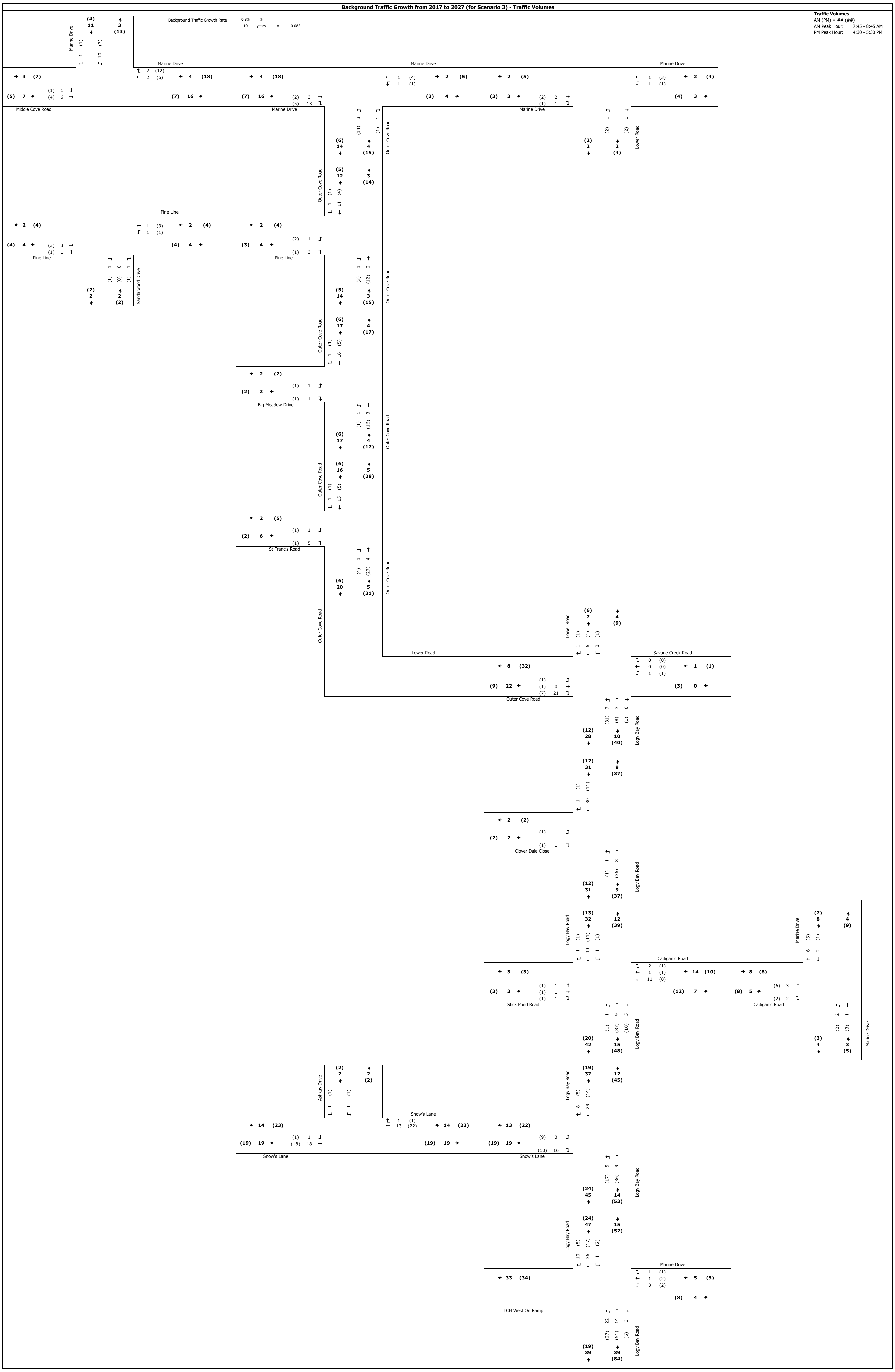


Scenario 2: Five-year Development Projection (2022) - Traffic Volumes

Traffic Volumes
AM Peak Hour: (# #)
AM Peak Hour: 7:45 - 8:45 AM
PM Peak Hour: 4:30 - 5:30 PM

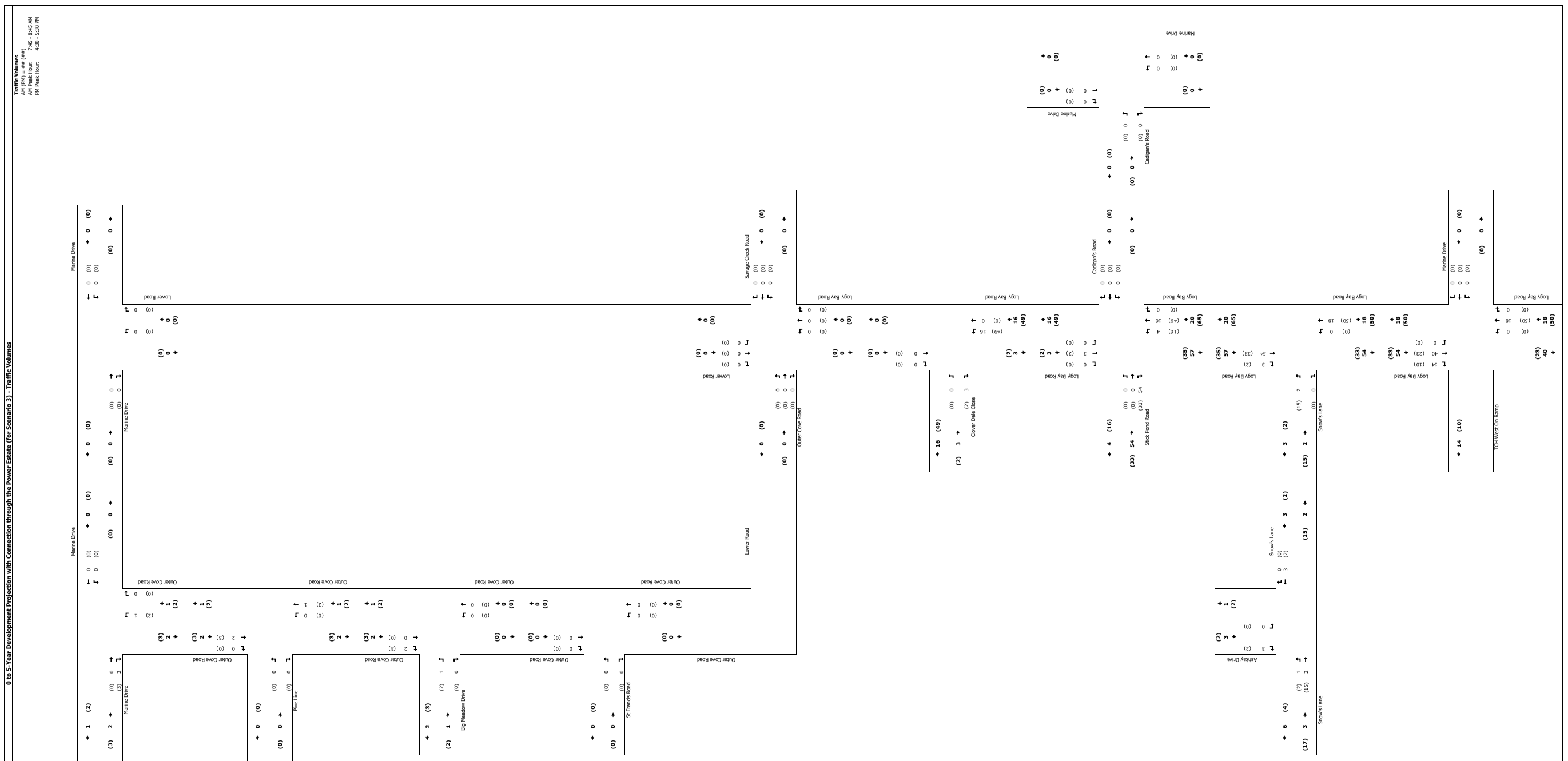


Background Traffic Growth from 2017 to 2027 (for Scenario 3) - Traffic Volumes



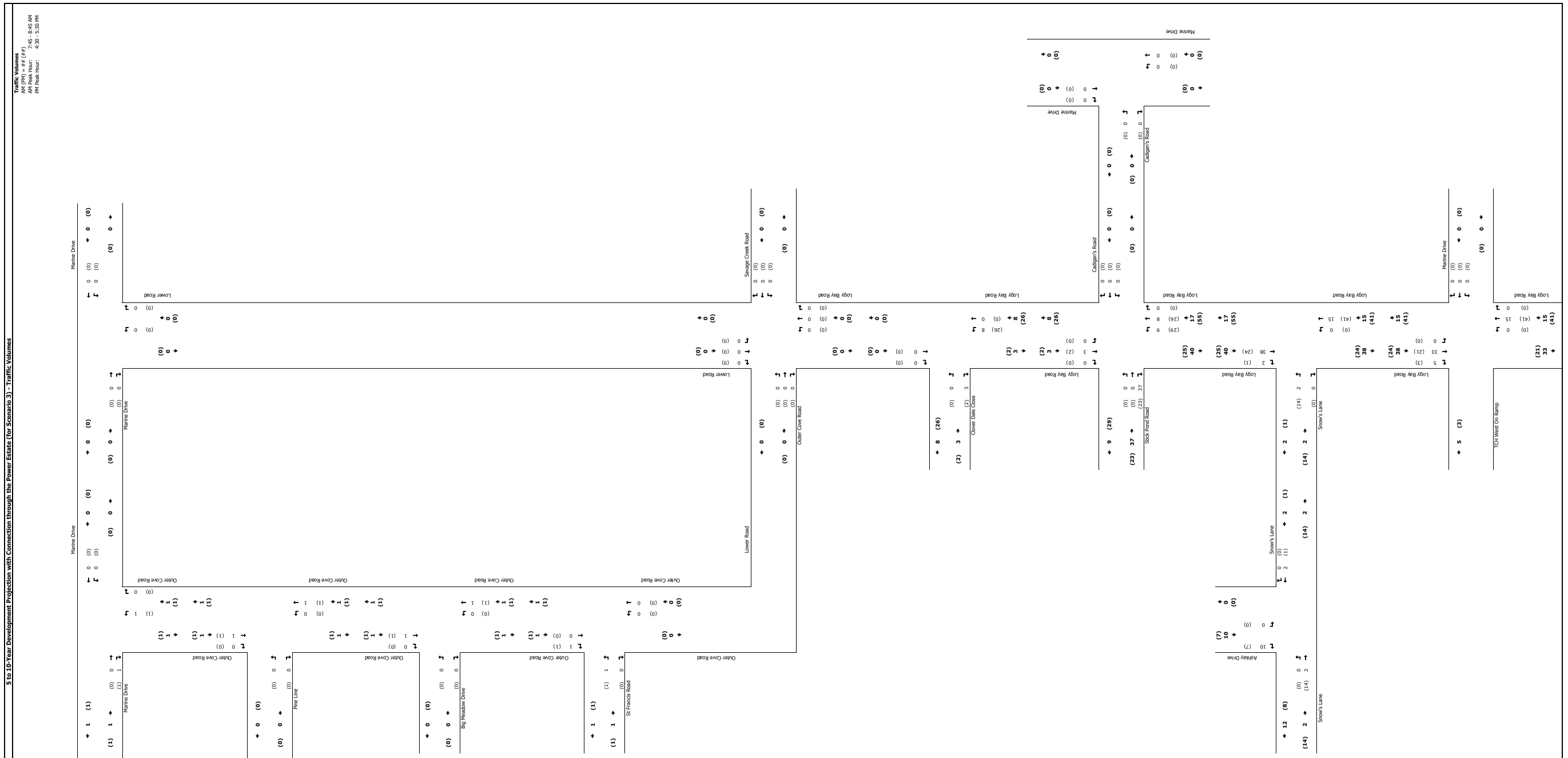
0 to 5-Year Development Projection with Connection through the Power Estate (for Scenario 3) - Traffic Volumes

Traffic Volumes
AM Peak Hour of (#):
AM Peak Hour: 7:45 - 8:45 AM
PM Peak Hour: 4:30 - 5:30 PM



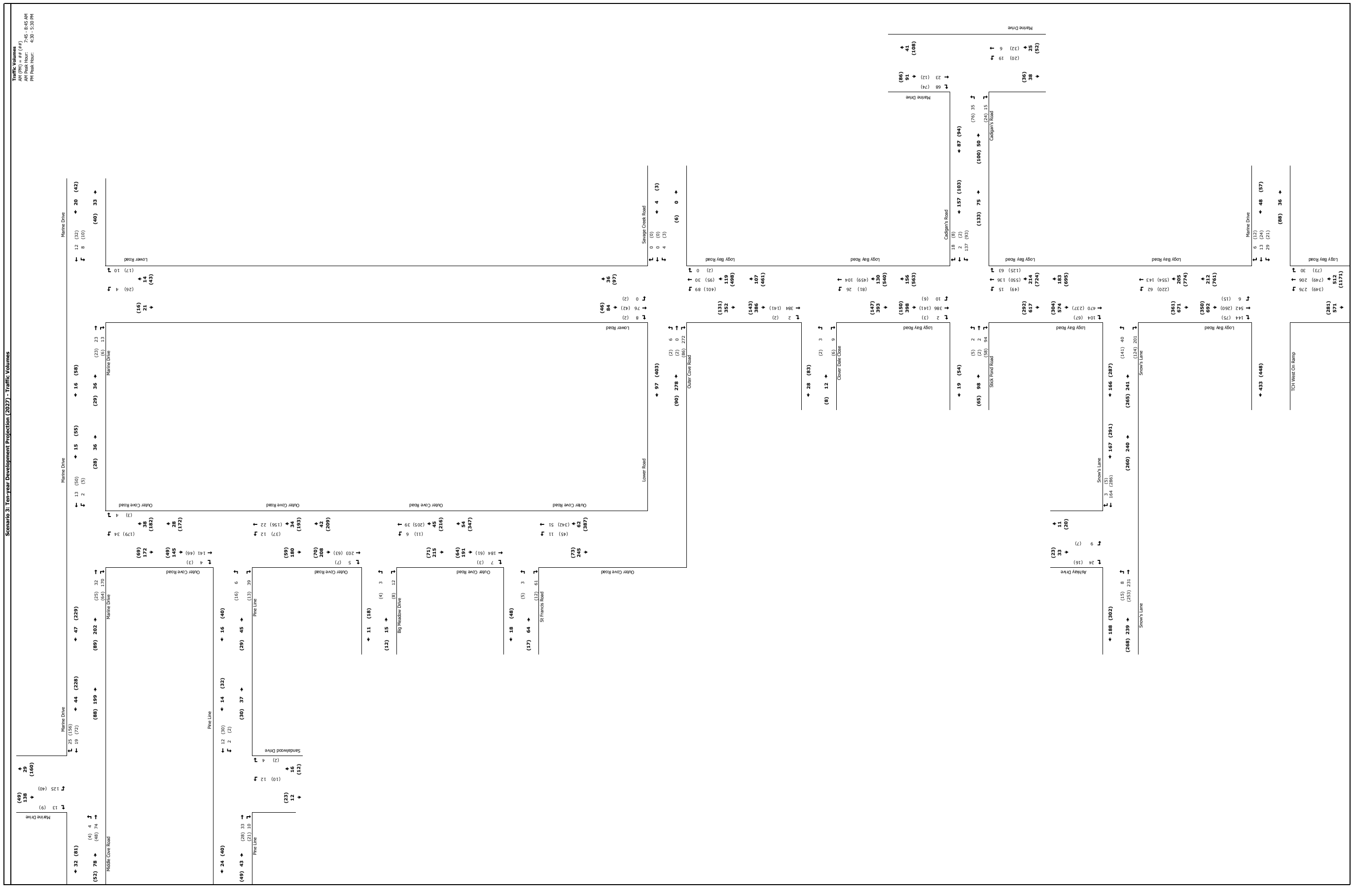
5 to 10-Year Development Projection with Connection through the Power Estate (for Scenario 3) - Traffic Volumes

Traffic Volumes
AM Peak Hour: 7:45 - 8:45 AM
PM Peak Hour: 4:30 - 5:30 PM



Scenario 3: Ten-year Development Projection (2027) - Traffic Volumes

Traffic Volumes
All Peaks Hour (24)
AM Peak Hour: 7:45 - 8:45 AM
PM Peak Hour: 4:30 - 5:30 PM



Appendix E

Analysis Summary Tables

Intersection		S1: Existing Conditions (2017) - AM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**5.1**	**A**				**3.1**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	13.8	B	B	0.02	0.7	3.2	A	6.4
	EB Through						8.8	A	
	EB Right - Turn						5.4	A	
	WB Left - Turn	25.2	D	D	0.51	18.9	11.2	B	27.5
	WB Through						11.5	B	
	WB Right - Turn						6.4	A	
Logy Bay Road	NB Left - Turn	8.5	A	A	0.00	0.0	2.5	A	1.8
	NB Through	0.0		A	-	-	1.2	A	
	NB Right - Turn	0.0		A	-	-	0.6	A	
	SB Left - Turn	7.6	A	A	0.01	0.0	3.3	A	3.3
	SB Through	0.0		A	-	-	1.2	A	
	SB Right - Turn	0.0		A	-	-	1.4	A	
Logy Bay Road & Clover Dale Close		**0.3**	**A**				**0.4**	**A**	
Clover Dale Close	EB Left - Turn	12.2	B	B	0.02	0.7	8.6	A	6.2
	EB Right - Turn						3.4	A	
Logy Bay Road	NB Left - Turn	8.3	A	A	0.00	0.0	0.0	A	2.2
	NB Through	0.0		A	-	-	0.8	A	
	SB Through	0.0	A	-	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**4.9**	**A**				**3.4**	**A**	
Marine Drive	WB Left - Turn	47.5	E	E	0.41	12.6	18.1	C	16.9
	WB Through						17.9	C	
	WB Right - Turn						5.4	A	
Logy Bay Road	NB Left - Turn	10.4	A	B	0.30	8.4	6.9	A	29.4
	NB Through	0.0		A	-	-	0.5	A	-
	NB Right - Turn	0.0		A	-	-	0.3	A	
	SB Left - Turn	7.9	A	A	0.01	0.0	2.9	A	3.6
	SB Through	0.0		A	-	-	1.9	A	1.9
	SB Right - Turn	0.0		A	-	-	0.9	A	
Logy Bay Road & Snow's Lane		**5.1**	**A**				**3.5**	**A**	
Snow's Lane	EB Left - Turn	18.2	C	C	0.48	18.2	11.8	B	29.6
	EB Right - Turn						7.0	A	
Logy Bay Road	NB Left - Turn	8.8	A	A	0.07	1.4	4.3	A	13.4
	NB Through	0.0		-	-	-	0.5	A	-
	SB Through	0.0	A	-	-	-	2.3	A	1.7
	SB Right - Turn						1.4	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.9**	**A**				**1.2**	**A**	
Lower Road	WB Left - Turn	12.9	B	B	0.16	4.2	6.0	A	14.8
	WB Right - Turn						3.3	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	-	-	-	0.3	A	-
	NB Right - Turn						0.2	A	
	SB Left - Turn	7.5	A	A	0.01	0.0	1.2	A	2.0
	SB Through	0.0		A	-	-	0.2	A	
Marine Drive & Cadigan's Road		**2.0**	**A**				**1.1**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	-	-	-	1.0	A	2.0
	EB Right - Turn						0.9	A	
Marine Drive	NB Left - Turn	9.1	A	A	0.04	0.7	5.1	A	13.9
	NB Through						6.0	A	
	SB Through	0.0	A	-	-	-	0.6	A	-
	SB Right - Turn						0.2	A	

Marine Drive & Lower Road		**2.5**	**A**				**0.6**	**A**	
Marine Drive	EB Through	0.0	A	-	-	-	0.0	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	0.8	A	0.9
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	8.7	A	A	0.02	0.0	5.2	A	9.3
	NB Right - Turn						2.2	A	
Marine Drive & Middle Cove Road		**4.7**	**A**				**2.7**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.6	A	A	0.00	0.0	1.9	A	-
	EB Through	0.0		A	-	-	0.2	A	
	WB Through	0.0	A	-	-	-	0.4	A	-
	WB Right - Turn						0.1	A	
Marine Drive	SB Left - Turn	9.8	A	A	0.16	4.2	5.2	A	17.2
	SB Right - Turn						2.9	A	
Marine Drive & Outer Cove Road		**1.7**	**A**				**1.2**	**A**	
Marine Drive	EB Through	0.0	A	-	-	-	1.3	A	-
	EB Right - Turn						0.6	A	
	WB Left - Turn	7.7	A	A	0.00	0.0	3.3	A	2.1
	WB Through	0.0		A	-	-	0.1	A	
Outer Cove Road	NB Left - Turn	9.6	A	A	0.06	1.4	4.4	A	12.0
	NB Right - Turn						2.4	A	
Outer Cove Road & Big Meadow Drive		**0.9**	**A**				**0.3**	**A**	
Big Meadow Drive	EB Left - Turn	9.5	A	A	0.03	0.7	0.0	A	9.1
	EB Right - Turn						2.8	A	
Outer Cove Road	NB Left - Turn	7.6	A	A	0.01	0.0	2.6	A	3.7
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	-	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & Pine Line		**2.7**	**A**				**0.9**	**A**	
Pine Line	EB Left - Turn	9.5	A	A	0.07	1.4	4.9	A	13.2
	EB Right - Turn						2.7	A	
Outer Cove Road	NB Left - Turn	7.8	A	A	0.01	0.0	2.4	A	4.5
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	-	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**2.1**	**A**				**0.9**	**A**	
St. Francis Road	EB Left - Turn	9.8	A	A	0.09	2.1	0.0	A	14.0
	EB Right - Turn						3.2	A	
Outer Cove Road	NB Left - Turn	7.8	A	A	0.01	0.0	1.5	A	4.4
	NB Through	0.0		A	-	-	0.1	A	
	SB Through	0.0	A	-	-	-	0.3	A	-
	SB Right - Turn						0.2	A	
Pine Line & Sandalwood Drive		**1.8**	**A**				**0.4**	**A**	
Pine Line	EB Through	0.0	A	-	-	-	0.1	A	-
	EB Right - Turn						0.1	A	
	WB Left - Turn	7.3	A	A	0.00	0.0	0.0	A	-
	WB Through	-		A	-	-	0.0	A	
Sandalwood Drive	NB Left - Turn	8.8	A	A	0.02	0.7	3.9	A	7.6
	NB Right - Turn						2.5	A	
Snow's Lane & Ashkay Drive		**0.8**	**A**				**0.8**	**A**	
Snow's Lane	EB Left - Turn	7.7	A	A	0.01	0.0	1.5	A	1.2
	EB Through	0.0		A	-	-	0.6	A	
	WB Through	0.0	A	-	-	-	0.8	A	-
	WB Right - Turn						0.5	A	
Ashkay Drive	SB Left - Turn	10.5	B	B	0.05	0.7	5.4	A	13.0
	SB Right - Turn						2.7	A	

Intersection		S1: Existing Conditions (2017) - PM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**2.6**	**A**				**3.7**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	15.3	C	C	0.03	0.7	7.1	A	6.6
	EB Through						11.9	B	
	EB Right - Turn						4.5	A	
	WB Left - Turn	20.8	C	C	0.32	9.1	13.4	B	24.7
	WB Through						8.1	A	
	WB Right - Turn						8.0	A	
Logy Bay Road	NB Left - Turn	7.5	A	A	0.00	0.0	4.6	A	1.5
	NB Through	0.0		A	-	-	3.0	A	
	NB Right - Turn	0.0		A	-	-	1.9	A	
	SB Left - Turn	8.8	A	A	0.01	0.0	5.6	A	2.2
	SB Through	0.0		A	-	-	0.6	A	
	SB Right - Turn	0.0		A	-	-	0.2	A	
Logy Bay Road & Clover Dale Close		**0.2**	**A**				**1.9**	**A**	
Clover Dale Close	EB Left - Turn	11.3	B	B	0.01	0.0	7.9	A	4.2
	EB Right - Turn						3.5	A	
Logy Bay Road	NB Left - Turn	7.5	A	A	0.00	0.0	3.9	A	1.7
	NB Through	0.0		A	-	-	2.4	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**7.2**	**A**				**2.8**	**A**	
Marine Drive	WB Left - Turn	96.7	F	F	0.72	26.6	27.5	D	19.5
	WB Through						18.4	C	
	WB Right - Turn						11.0	B	
Logy Bay Road	NB Left - Turn	9.0	A	A	0.28	7.7	4.2	A	23.5
	NB Through	0.0		A	-	-	1.4	A	2.2
	NB Right - Turn	0.0		A	-	-	0.7	A	
	SB Left - Turn	9.1	A	A	0.02	0.7	6.9	A	7.5
	SB Through	0.0		A	-	-	0.9	A	2.0
	SB Right - Turn	0.0		A	-	-	0.4	A	
Logy Bay Road & Snow's Lane		**13.8**	**B**				**4.9**	**A**	
Snow's Lane	EB Left - Turn	66.2	F	F	0.87	51.8	18.9	C	40.6
	EB Right - Turn						10.7	B	
Logy Bay Road	NB Left - Turn	8.6	A	A	0.19	4.9	4.6	A	19.0
	NB Through	0.0		A	-	-	2.4	A	7.1
	SB Through	0.0	A	A	-	-	1.5	A	1.9
	SB Right - Turn						0.7	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.0**	**A**				**1.4**	**A**	
Lower Road	WB Left - Turn	13.3	B	B	0.10	2.1	7.9	A	14.1
	WB Right - Turn						4.0	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	1.2	A	-
	NB Right - Turn						0.5	A	
	SB Left - Turn	8.5	A	A	0.00	0.0	0.0	A	1.5
	SB Through	0.0		A	-	-	0.1	A	
Marine Drive & Cadigan's Road		**3.0**	**A**				**1.8**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	1.4	A	3.6
	EB Right - Turn						1.3	A	
Marine Drive	NB Left - Turn	9.0	A	A	0.05	1.4	5.0	A	15.5
	NB Through						6.2	A	
	SB Through	0.0	A	A	-	-	0.6	A	-
	SB Right - Turn						0.2	A	

Marine Drive & Lower Road		**4.0**	**A**				**1.6**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.0	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	0.9	A	0.9
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	8.9	A	A	0.05	1.4	4.5	A	11.3
	NB Right - Turn						2.3	A	
Marine Drive & Middle Cove Road		**1.7**	**A**				**1.2**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.7	A	A	0.00	0.0	1.8	A	1.3
	EB Through	0.0		A	-	-	0.1	A	
	WB Through	0.0	A	A	-	-	1.3	A	-
	WB Right - Turn						0.6	A	
Marine Drive	SB Left - Turn	9.7	A	A	0.07	1.4	4.8	A	14.2
	SB Right - Turn						2.5	A	
Marine Drive & Outer Cove Road		**5.4**	**A**				**3.2**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.5	A	-
	EB Right - Turn						0.3	A	
	WB Left - Turn	7.4	A	A	0.00	0.0	2.0	A	0.9
	WB Through	0.0		A	-	-	0.2	A	
Outer Cove Road	NB Left - Turn	10.3	B	B	0.21	5.6	5.5	A	18.7
	NB Right - Turn						2.6	A	
Outer Cove Road & Big Meadow Drive		**0.6**	**A**				**0.5**	**A**	
Big Meadow Drive	EB Left - Turn	9.0	A	A	0.01	0.0	0.0	A	8.3
	EB Right - Turn						2.3	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.01	0.0	2.2	A	2.4
	NB Through	0.0		A	-	-	0.4	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & Pine Line		**2.3**	**A**				**0.8**	**A**	
Pine Line	EB Left - Turn	9.7	A	A	0.05	1.4	5.0	A	12.1
	EB Right - Turn						2.3	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.02	0.7	2.0	A	4.3
	NB Through	0.0		A	-	-	0.3	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**1.2**	**A**				**0.7**	**A**	
St. Francis Road	EB Left - Turn	9.3	A	A	0.03	0.7	5.9	A	9.2
	EB Right - Turn						2.3	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.03	0.7	1.5	A	5.9
	NB Through	0.0		A	-	-	0.7	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Pine Line & Sandalwood Drive		**1.2**	**A**				**0.4**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.1	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.00	0.0	0.0	A	-
	WB Through	0.0		A	-	-	0.1	A	
Sandalwood Drive	NB Left - Turn	9.0	A	A	0.02	0.0	3.9	A	7.5
	NB Right - Turn						2.3	A	
Snow's Lane & Ashkay Drive		**0.6**	**A**				**1.0**	**A**	
Snow's Lane	EB Left - Turn	7.9	A	A	0.01	0.0	1.8	A	5.6
	EB Through	0.0		A	-	-	0.7	A	
	WB Through	0.0	A	A	-	-	1.1	A	-
	WB Right - Turn						0.7	A	
Ashkay Drive	SB Left - Turn	11.5	B	B	0.04	0.7	5.4	A	10.2
	SB Right - Turn						3.2	A	

Intersection		S2: Five-Year Development Projection (2022) - AM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**8.4**	**A**				**3.9**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	14.5	B	B	0.08	2.1	12.5	B	12.3
	EB Through						15.0	B	
	EB Right - Turn						8.2	A	
	WB Left - Turn	44.3	E	E	0.70	32.9	14.4	B	31.2
	WB Through						12.0	B	
	WB Right - Turn						8.6	A	
Logy Bay Road	NB Left - Turn	8.8	A	A	0.01	0.0	3.9	A	4.4
	NB Through	0.0		A	-	-	1.2	A	
	NB Right - Turn	0.0		A	-	-	0.6	A	
	SB Left - Turn	7.7	A	A	0.01	0.0	3.0	A	2.5
	SB Through	0.0		A	-	-	1.5	A	
	SB Right - Turn	0.0		A	-	-	0.7	A	
Logy Bay Road & Clover Dale Close		**0.4**	**A**				**0.4**	**A**	
Clover Dale Close	EB Left - Turn	13.2	B	B	0.05	0.7	7.8	A	6.9
	EB Right - Turn						4.1	A	
Logy Bay Road	NB Left - Turn	8.5	A	A	0.01	0.0	5.1	A	3.9
	NB Through	0.0		A	-	-	0.8	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**5.9**	**A**				**4.0**	**A**	
Marine Drive	WB Left - Turn	69.7	F	F	0.55	18.2	27.3	D	19.7
	WB Through						20.1	C	
	WB Right - Turn						8.0	A	
Logy Bay Road	NB Left - Turn	11.1	A	B	0.33	10.5	8.3	A	33.0
	NB Through	0.0		A	-	-	0.6	A	
	NB Right - Turn	0.0		A	-	-	0.3	A	
	SB Left - Turn	8.0	A	A	0.01	0.0	3.1	A	2.9
	SB Through	0.0		A	-	-	2.2	A	6.8
	SB Right - Turn	0.0		A	-	-	1.1	A	
Logy Bay Road & Snow's Lane		**5.9**	**A**				**3.8**	**A**	
Snow's Lane	EB Left - Turn	23.3	C	C	0.58	25.2	12.7	B	30.5
	EB Right - Turn						7.8	A	
Logy Bay Road	NB Left - Turn	9.2	A	A	0.08	1.4	5.3	A	14.5
	NB Through	0.0		A	-	-	0.6	A	
	SB Through	0.0	A	A	-	-	2.6	A	1.8
	SB Right - Turn						1.8	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.9**	**A**				**1.3**	**A**	
Lower Road	WB Left - Turn	14.3	B	B	0.19	4.9	7.4	A	17.0
	WB Right - Turn						3.3	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	0.4	A	-
	NB Right - Turn						0.2	A	
	SB Left - Turn	7.6	A	A	0.01	0.0	1.2	A	1.1
	SB Through	0.0		A	-	-	0.2	A	
Marine Drive & Cadigan's Road		**2.1**	**A**				**1.2**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	0.9	A	2.2
	EB Right - Turn						0.8	A	
Marine Drive	NB Left - Turn	9.2	A	A	0.04	0.7	4.8	A	14.7
	NB Through						6.0	A	
	SB Through	0.0	A	A	-	-	0.7	A	-
	SB Right - Turn						0.2	A	

Marine Drive & Lower Road		**2.6**	**A**				**0.7**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.1	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	1.0	A	1.6
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	8.7	A	A	0.02	0.7	3.8	A	9.9
	NB Right - Turn						2.1	A	
Marine Drive & Middle Cove Road		**4.7**	**A**				**2.7**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.6	A	A	0.00	0.0	1.8	A	2.6
	EB Through	0.0		A	-	-	0.2	A	
	WB Through	0.0	A	A	-	-	0.2	A	-
	WB Right - Turn						0.1	A	
Marine Drive	SB Left - Turn	9.9	A	A	0.17	4.2	5.1	A	18.4
	SB Right - Turn						3.0	A	
Marine Drive & Outer Cove Road		**1.9**	**A**				**1.3**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	1.4	A	-
	EB Right - Turn						0.7	A	
	WB Left - Turn	7.7	A	A	0.00	0.0	2.6	A	1.9
	WB Through	0.0		A	-	-	0.1	A	
Outer Cove Road	NB Left - Turn	9.7	A	A	0.07	1.4	4.5	A	12.4
	NB Right - Turn						2.2	A	
Outer Cove Road & Big Meadow Drive		**1.1**	**A**				**0.4**	**A**	
Big Meadow Drive	EB Left - Turn	9.7	A	A	0.04	0.7	5.5	A	10.6
	EB Right - Turn						3.0	A	
Outer Cove Road	NB Left - Turn	7.7	A	A	0.01	0.0	2.7	A	4.1
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.1	A	
Outer Cove Road & Pine Line		**2.7**	**A**				**0.9**	**A**	
Pine Line	EB Left - Turn	9.6	A	A	0.07	1.4	4.8	A	14.7
	EB Right - Turn						2.7	A	
Outer Cove Road	NB Left - Turn	7.9	A	A	0.01	0.0	2.2	A	3.5
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	-	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**3.3**	**A**				**1.3**	**A**	
St. Francis Road	EB Left - Turn	10.3	B	B	0.16	4.2	5.0	A	14.9
	EB Right - Turn						3.6	A	
Outer Cove Road	NB Left - Turn	7.8	A	A	0.03	0.7	1.8	A	7.9
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	A	-	-	0.4	A	-
	SB Right - Turn						0.2	A	
Pine Line & Sandalwood Drive		**2.6**	**A**				**0.8**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.2	A	-
	EB Right - Turn						0.1	A	
	WB Left - Turn	7.3	A	A	0.00	0.0	1.3	A	-
	WB Through	0.0		A	-	-	0.0	A	
Sandalwood Drive	NB Left - Turn	8.9	A	A	0.03	0.7	4.2	A	10.8
	NB Right - Turn						2.3	A	
Snow's Lane & Ashkay Drive		**1.1**	**A**				**0.9**	**A**	
Snow's Lane	EB Left - Turn	7.8	A	A	0.01	0.0	1.6	A	2.5
	EB Through	0.0		A	-	-	0.6	A	
	WB Through	0.0	A	A	-	-	0.8	A	-
	WB Right - Turn						0.4	A	
Ashkay Drive	SB Left - Turn	10.7	B	B	0.06	1.4	5.2	A	14.0
	SB Right - Turn						3.2	A	

Intersection		S2: Five-Year Development Projection (2022) - PM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**3.8**	**A**				**4.6**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	14.5	B	B	0.08	2.1	9.8	A	10.7
	EB Through						17.4	C	
	EB Right - Turn						5.4	A	
	WB Left - Turn	30.8	D	D	0.45	15.4	19.1	C	27.8
	WB Through						16.6	C	
	WB Right - Turn						9.9	A	
Logy Bay Road	NB Left - Turn	7.7	A	A	0.02	0.0	4.4	A	8.5
	NB Through	0.0		A	-	-	3.6	A	
	NB Right - Turn	0.0		A	-	-	2.4	A	
	SB Left - Turn	9.0	A	A	0.01	0.0	5.4	A	4.2
	SB Through	0.0		A	-	-	0.6	A	
	SB Right - Turn	0.0		A	-	-	0.3	A	
Logy Bay Road & Clover Dale Close		**0.4**	**A**				**2.0**	**A**	
Clover Dale Close	EB Left - Turn	11.8	B	B	0.04	0.7	9.5	A	5.6
	EB Right - Turn						2.4	A	
Logy Bay Road	NB Left - Turn	7.6	A	A	0.01	0.0	4.1	A	4.1
	NB Through	0.0		A	-	-	2.6	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**10.7**	**B**				**2.9**	**A**	
Marine Drive	WB Left - Turn	171.6	F	F	0.95	37.1	27.2	D	20.3
	WB Through						24.1	C	
	WB Right - Turn						10.3	B	
Logy Bay Road	NB Left - Turn	9.3	A	A	0.30	9.1	4.7	A	25.2
	NB Through	0.0		A	-	-	1.6	A	1.5
	NB Right - Turn	0.0		A	-	-	0.9	A	
	SB Left - Turn	9.5	A	A	0.02	0.7	6.0	A	7.4
	SB Through	0.0		A	-	-	1.1	A	1.2
	SB Right - Turn	0.0		A	-	-	0.5	A	
Logy Bay Road & Snow's Lane		**35.3**	**E**				**7.1**	**A**	
Snow's Lane	EB Left - Turn	188.7	F	F	1.24	95.2	30.6	D	57.9
	EB Right - Turn						19.4	C	
Logy Bay Road	NB Left - Turn	8.9	A	A	0.21	5.6	5.2	A	20.2
	NB Through	0.0		A	-	-	2.7	A	15.0
	SB Through	0.0	A	A	-	-	1.6	A	1.5
	SB Right - Turn						0.9	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.1**	**A**				**1.4**	**A**	
Lower Road	WB Left - Turn	14.8	B	B	0.13	2.8	9.2	A	15.1
	WB Right - Turn						4.9	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	1.2	A	-
	NB Right - Turn						0.6	A	
	SB Left - Turn	8.7	A	A	0.00	0.0	3.2	A	1.3
	SB Through	0.0		A	-	-	0.1	A	
Marine Drive & Cadigan's Road		**3.0**	**A**				**1.8**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	1.4	A	2.5
	EB Right - Turn						1.4	A	
Marine Drive	NB Left - Turn	9.0	A	A	0.05	1.4	5.3	A	14.7
	NB Through						6.3	A	
	SB Through	0.0	A	A	-	-	0.5	A	-
	SB Right - Turn						0.2	A	

Marine Drive & Lower Road		**4.0**	**A**				**1.5**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.0	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	1.1	A	1.9
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	9.0	A	A	0.06	1.4	4.6	A	11.6
	NB Right - Turn						2.3	A	
Marine Drive & Middle Cove Road		**1.8**	**A**				**1.3**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.7	A	A	0.01	0.0	2.4	A	2.9
	EB Through	0.0		A	-	-	0.1	A	
	WB Through	0.0	A	A	-	-	1.3	A	-
	WB Right - Turn						0.6	A	
Marine Drive	SB Left - Turn	9.8	A	A	0.08	2.1	5.1	A	15.4
	SB Right - Turn						2.5	A	
Marine Drive & Outer Cove Road		**5.5**	**A**				**3.2**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.5	A	-
	EB Right - Turn						0.2	A	
	WB Left - Turn	7.5	A	A	0.00	0.0	2.5	A	2.5
	WB Through	0.0		A	-	-	0.2	A	
Outer Cove Road	NB Left - Turn	10.5	B	B	0.23	6.3	5.5	A	17.5
	NB Right - Turn						3.8	A	
Outer Cove Road & Big Meadow Drive		**0.8**	**A**				**0.5**	**A**	
Big Meadow Drive	EB Left - Turn	9.6	A	A	0.02	0.7	6.1	A	11.3
	EB Right - Turn						2.2	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.01	0.0	2.4	A	3.2
	NB Through	0.0		A	-	-	0.5	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & Pine Line		**2.3**	**A**				**0.9**	**A**	
Pine Line	EB Left - Turn	9.9	A	A	0.06	1.4	5.1	A	12.2
	EB Right - Turn						2.3	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.03	0.7	2.2	A	4.2
	NB Through	0.0		A	-	-	0.3	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**2.3**	**A**				**1.0**	**A**	
St. Francis Road	EB Left - Turn	9.3	A	A	0.08	2.1	8.2	A	14.0
	EB Right - Turn						2.5	A	
Outer Cove Road	NB Left - Turn	7.5	A	A	0.07	1.4	1.7	A	9.5
	NB Through	0.0		A	-	-	0.8	A	
	SB Through	0.0	A	A	-	-	0.2	A	0.7
	SB Right - Turn						0.2	A	
Pine Line & Sandalwood Drive		**1.7**	**A**				**0.6**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.3	A	-
	EB Right - Turn						0.2	A	
	WB Left - Turn	7.4	A	A	0.00	0.0	2.2	A	1.3
	WB Through	0.0		A	-	-	0.1	A	
Sandalwood Drive	NB Left - Turn	9.2	A	A	0.03	0.7	4.1	A	10.2
	NB Right - Turn						2.1	A	
Snow's Lane & Ashkay Drive		**0.7**	**A**				**1.1**	**A**	
Snow's Lane	EB Left - Turn	7.9	A	A	0.02	0.0	2.3	A	8.4
	EB Through	0.0		A	-	-	0.7	A	
	WB Through	0.0	A	A	-	-	1.1	A	-
	WB Right - Turn						1.2	A	
Ashkay Drive	SB Left - Turn	11.8	B	B	0.05	0.7	5.7	A	10.8
	SB Right - Turn						3.1	A	

Intersection		S2: Five-Year Dev. with Improvements (2022) - AM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**7.6**	**A**				**3.7**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	14.5	B	B	0.08	2.1	8.0	A	11.5
	EB Through						15.2	C	
	EB Right - Turn						7.8	A	
	WB Left - Turn	44.3	E	E	0.67	29.4	14.4	B	25.8
	WB Through	10.3		B	0.03	0.7	10.1	B	13.4
	WB Right - Turn						3.8	A	
Logy Bay Road	NB Left - Turn	8.8	A	A	0.01	0.0	3.6	A	3.4
	NB Through	0.0		A	-	-	1.1	A	
	NB Right - Turn	0.0		A	-	-	0.6	A	
	SB Left - Turn	7.7	A	A	0.01	0.0	3.6	A	3.4
	SB Through	0.0		A	-	-	1.4	A	
	SB Right - Turn	0.0		A	-	-	1.4	A	
Logy Bay Road & Clover Dale Close		**0.4**	**A**				**0.4**	**A**	
Clover Dale Close	EB Left - Turn	13.2	B	B	0.05	0.7	8.4	A	7.8
	EB Right - Turn						3.7	A	
Logy Bay Road	NB Left - Turn	8.5	A	A	0.01	0.0	4.5	A	4.0
	NB Through	0.0		A	-	-	0.7	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**4.6**	**A**				**4.0**	**A**	
Marine Drive	WB Left - Turn	64.6	E	F	0.39	11.2	25.3	D	12.6
	WB Through	9.9		A	0.03	0.7	19.2	C	13.6
	WB Right - Turn						7.1	A	
Logy Bay Road	NB Left - Turn	11.1	A	B	0.33	10.5	9.1	A	37.7
	NB Through	0.0		A	-	-	0.6	A	0.6
	NB Right - Turn	0.0		A	-	-	0.3	A	
	SB Left - Turn	8.0	A	A	0.01	0.0	3.4	A	4.7
	SB Through	0.0		A	-	-	2.0	A	6.3
	SB Right - Turn	0.0		A	-	-	0.9	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.9**	**A**				**1.2**	**A**	
Lower Road	WB Left - Turn	14.3	B	A	0.19	4.9	6.6	A	17.2
	WB Right - Turn						3.3	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	0.4	A	-
	NB Right - Turn						0.2	A	
	SB Left - Turn	7.6	A	A	0.01	0.0	1.5	A	3.7
	SB Through	0.0		A	-	-	0.2	A	
Marine Drive & Cadigan's Road		**2.1**	**A**				**1.3**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	1.1	A	2.8
	EB Right - Turn						0.9	A	
Marine Drive	NB Left - Turn	9.2	A	A	0.42	0.7	4.6	A	14.0
	NB Through						5.9	A	
	SB Through	0.0	A	A	-	-	0.6	A	-
	SB Right - Turn						0.2	A	
Marine Drive & Lower Road		**2.6**	**A**				**0.7**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.1	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	1.0	A	1.7
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	8.7	A	A	0.02	0.7	3.7	A	10.0
	NB Right - Turn						2.1	A	

Marine Drive & Middle Cove Road		**4.7**	**A**				**2.8**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.6	A	A	0.00	0.0	2.2	A	1.5
	EB Through	0.0		A	-	-	0.2	A	
	WB Through	0.0	A	A	-	-	0.2	A	-
	WB Right - Turn						0.1	A	
Marine Drive	SB Left - Turn	9.9	A	A	0.17	4.2	5.2	A	18.3
	SB Right - Turn						3.3	A	
Marine Drive & Outer Cove Road		**1.9**	**A**				**1.3**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	1.4	A	0.6
	EB Right - Turn						0.6	A	
	WB Left - Turn	7.7	A	A	0.00	0.0	2.4	A	1.7
	WB Through	0.0		A	-	-	0.0	A	
Outer Cove Road	NB Left - Turn	9.7	A	A	0.07	1.4	4.6	A	13.7
	NB Right - Turn						2.5	A	
Outer Cove Road & Big Meadow Drive		**1.1**	**A**				**0.4**	**A**	
Big Meadow Drive	EB Left - Turn	9.7	A	A	0.04	0.7	5.2	A	11.1
	EB Right - Turn						2.7	A	
Outer Cove Road	NB Left - Turn	7.7	A	A	0.01	0.0	2.4	A	2.6
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.1	A	
Outer Cove Road & Pine Line		**2.7**	**A**				**0.8**	**A**	
Pine Line	EB Left - Turn	9.6	A	A	0.07	1.4	5.6	A	14.0
	EB Right - Turn						2.6	A	
Outer Cove Road	NB Left - Turn	7.9	A	A	0.01	0.0	2.3	A	5.2
	NB Through	0.0		A	-	-	0.0	A	
	SB Through	-	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**3.3**	**A**				**1.3**	**A**	
St. Francis Road	EB Left - Turn	10.3	B	B	0.16	4.2	6.6	A	16.1
	EB Right - Turn						3.4	A	
Outer Cove Road	NB Left - Turn	7.8	A	A	0.03	0.7	1.7	A	7.1
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	A	-	-	0.3	A	-
	SB Right - Turn						0.2	A	
Pine Line & Sandalwood Drive		**2.6**	**A**				**1.0**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.2	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.00	0.0	3.0	A	0.9
	WB Through	0.0		A	-	-	0.0	A	
Sandalwood Drive	NB Left - Turn	8.9	A	A	0.03	0.7	4.4	A	11.0
	NB Right - Turn						2.7	A	
Snow's Lane & Ashkay Drive		**1.1**	**A**				**0.8**	**A**	
Snow's Lane	EB Left - Turn	7.8	A	A	0.01	0.0	1.7	A	3.3
	EB Through	0.0		A	-	-	0.7	A	
	WB Through	0.0	A	A	-	-	0.5	A	-
	WB Right - Turn						0.1	A	
Ashkay Drive	SB Left - Turn	10.7	B	B	0.06	1.4	4.9	A	14.2
	SB Right - Turn						3.3	A	

Intersection		S2: Five-Year Dev. with Improvements (2022) - PM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**3.6**	**A**				**4.2**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	14.5	B	B	0.08	2.1	11.9	B	11.0
	EB Through						21.4	C	
	EB Right - Turn						5.2	A	
	WB Left - Turn	30.8	D	D	0.42	14.0	21.1	C	22.4
	WB Through	13.9		B	0.03	0.7	6.1	A	7.9
	WB Right - Turn						5.5	A	
Logy Bay Road	NB Left - Turn	7.7	A	A	0.02	0.0	3.6	A	4.7
	NB Through	0.0		A	-	-	2.9	A	
	NB Right - Turn	0.0		A	-	-	1.7	A	
	SB Left - Turn	9.0	A	A	0.01	0.0	8.3	A	5.7
	SB Through	0.0		A	-	-	0.8	A	
	SB Right - Turn	0.0		A	-	-	0.3	A	
Logy Bay Road & Clover Dale Close		**0.4**	**A**				**1.8**	**A**	
Clover Dale Close	EB Left - Turn	11.8	B	B	0.04	0.7	8.2	A	7.1
	EB Right - Turn						3.3	A	
Logy Bay Road	NB Left - Turn	7.6	A	A	0.01	0.0	3.8	A	4.2
	NB Through	0.0		A	-	-	2.2	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**4.8**	**A**				**3.0**	**A**	
Marine Drive	WB Left - Turn	118.8	F	F	0.51	14.0	29.5	D	10.3
	WB Through	15.1		C	0.13	2.8	27.3	D	17.6
	WB Right - Turn						10.6	B	
Logy Bay Road	NB Left - Turn	9.3	A	A	0.30	9.1	4.8	A	25.7
	NB Through	0.0		A	-	-	1.7	A	2.1
	NB Right - Turn	0.0		A	-	-	1.0	A	
	SB Left - Turn	9.5	A	A	0.02	0.7	7.3	A	8.2
	SB Through	0.0		A	-	-	0.9	A	2.1
	SB Right - Turn	0.0		A	-	-	0.4	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.1**	**A**				**1.4**	**A**	
Lower Road	WB Left - Turn	14.8	B	B	0.13	2.8	8.2	A	14.4
	WB Right - Turn						3.2	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	1.3	A	-
	NB Right - Turn						0.6	A	
	SB Left - Turn	8.7	A	A	0.00	0.0	1.9	A	2.0
	SB Through	0.0		A	-	-	0.1	A	
Marine Drive & Cadigan's Road		**3.0**	**A**				**1.7**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	1.2	A	2.2
	EB Right - Turn						1.1	A	
Marine Drive	NB Left - Turn	9.0	A	A	0.05	1.4	5.2	A	14.4
	NB Through						6.4	A	
	SB Through	0.0	A	A	-	-	0.7	A	-
	SB Right - Turn						0.2	A	
Marine Drive & Lower Road		**4.0**	**A**				**1.4**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.0	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	1.1	A	2.5
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	9.0	A	A	0.06	1.4	4.5	A	11.7
	NB Right - Turn						2.2	A	

Marine Drive & Middle Cove Road		**1.8**	**A**				**1.4**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.7	A	A	0.01	0.0	3.1	A	3.1
	EB Through	0.0		A	-	-	0.1	A	
	WB Through	0.0	A	A	-	-	1.5	A	-
	WB Right - Turn						0.7	A	
Marine Drive	SB Left - Turn	9.8	A	A	0.08	2.1	5.0	A	15.1
	SB Right - Turn						2.4	A	
Marine Drive & Outer Cove Road		**5.5**	**A**				**3.2**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.6	A	-
	EB Right - Turn						0.2	A	
	WB Left - Turn	7.5	A	A	0.00	0.0	1.9	A	-
	WB Through	0.0		A	-	-	0.2	A	
Outer Cove Road	NB Left - Turn	10.5	B	B	0.23	6.3	5.6	A	18.0
	NB Right - Turn						3.6	A	
Outer Cove Road & Big Meadow Drive		**0.8**	**A**				**0.5**	**A**	
Big Meadow Drive	EB Left - Turn	9.6	A	A	0.02	0.7	5.4	A	11.5
	EB Right - Turn						2.2	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.01	0.0	2.3	A	2.5
	NB Through	0.0		A	-	-	0.4	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.2	A	
Outer Cove Road & Pine Line		**2.3**	**A**				**1.0**	**A**	
Pine Line	EB Left - Turn	9.9	A	A	0.06	1.4	5.3	A	13.4
	EB Right - Turn						2.3	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.03	0.7	2.1	A	3.9
	NB Through	0.0		A	-	-	0.4	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**2.3**	**A**				**1.0**	**A**	
St. Francis Road	EB Left - Turn	9.3	A	A	0.08	2.1	8.0	A	13.3
	EB Right - Turn						2.5	A	
Outer Cove Road	NB Left - Turn	7.5	A	A	0.07	1.4	1.7	A	8.5
	NB Through	0.0		A	-	-	0.8	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Pine Line & Sandalwood Drive		**1.7**	**A**				**0.6**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.2	A	-
	EB Right - Turn						0.1	A	
	WB Left - Turn	7.4	A	A	0.00	0.0	1.9	A	-
	WB Through	0.0		A	-	-	0.1	A	
Sandalwood Drive	NB Left - Turn	9.2	A	A	0.03	0.7	4.2	A	9.5
	NB Right - Turn						2.1	A	
Snow's Lane & Ashkay Drive		**0.7**	**A**				**0.9**	**A**	
Snow's Lane	EB Left - Turn	7.9	A	A	0.02	0.0	1.9	A	6.2
	EB Through	0.0		A	-	-	0.7	A	
	WB Through	0.0	A	A	-	-	0.9	A	-
	WB Right - Turn						0.5	A	
Ashkay Drive	SB Left - Turn	11.8	B	B	0.05	0.7	5.3	A	10.6
	SB Right - Turn						3.3	A	

Intersection		S3: Ten-Year Development Projection (2027) - AM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**30.4**	**D**				**6.2**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	16.9	C	C	0.39	13.3	44.5	E	34.0
	EB Through						31.0	D	
	EB Right - Turn						18.8	C	
	WB Left - Turn	199.3	F	F	1.20	70.0	19.2	C	28.5
	WB Through	10.4		B	0.04	0.7	9.1	A	27.0
	WB Right - Turn						4.4	A	
Logy Bay Road	NB Left - Turn	8.7	A	A	0.02	0.7	3.9	A	8.1
	NB Through	0.0		A	-	-	1.4	A	
	NB Right - Turn	0.0		A	-	-	0.7	A	
	SB Left - Turn	7.8	A	A	0.01	0.0	3.4	A	4.2
	SB Through	0.0		A	-	-	1.5	A	
	SB Right - Turn	0.0		A	-	-	1.4	A	
Logy Bay Road & Clover Dale Close		**1.1**	**A**				**0.7**	**A**	
Clover Dale Close	EB Left - Turn	12.8	B	B	0.07	1.4	8.3	A	10.0
	EB Right - Turn						4.3	A	
Logy Bay Road	NB Left - Turn	8.5	A	A	0.04	0.7	4.3	A	12.6
	NB Through	0.0		A	-	-	1.1	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**5.3**	**A**				**4.8**	**A**	
Marine Drive	WB Left - Turn	91.8	F	F	0.50	14.7	28.4	D	12.3
	WB Through	10.0		B	0.03	0.7	26.3	D	13.6
	WB Right - Turn						3.7	A	
Logy Bay Road	NB Left - Turn	11.8	A	B	0.37	11.9	11.7	B	42.4
	NB Through	0.0		A	-	-	0.8	A	16.8
	NB Right - Turn	0.0		A	-	-	0.5	A	
	SB Left - Turn	8.1	A	A	0.01	0.0	3.4	A	4.5
	SB Through	0.0		A	-	-	2.2	A	7.7
	SB Right - Turn	0.0		A	-	-	1.1	A	
Logy Bay Road/Outer Cove Road & Lower Road		**2.1**	**A**				**1.3**	**A**	
Lower Road	WB Left - Turn	13.6	B	B	0.19	4.9	6.6	A	16.6
	WB Right - Turn						3.6	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	0.4	A	-
	NB Right - Turn						0.2	A	
	SB Left - Turn	7.6	A	A	0.01	0.0	1.3	A	1.7
	SB Through	0.0		A	-	-	0.2	A	
Marine Drive & Cadigan's Road		**2.1**	**A**				**1.1**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	0.9	A	2.6
	EB Right - Turn						0.7	A	
Marine Drive	NB Left - Turn	9.2	A	A	0.04	0.7	4.9	A	13.6
	NB Through						6.2	A	
	SB Through	0.0	A	A	-	-	0.7	A	-
	SB Right - Turn						0.2	A	
Marine Drive & Lower Road		**2.6**	**A**				**0.7**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.1	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	0.9	A	1.3
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	8.7	A	A	0.02	0.7	3.7	A	9.3
	NB Right - Turn						2.1	A	

Marine Drive & Middle Cove Road		**4.8**	**A**				**2.8**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.7	A	A	0.00	0.0	1.6	A	1.7
	EB Through	0.0		A	-	-	0.2	A	
	WB Through	0.0	A	A	-	-	0.3	A	-
	WB Right - Turn						0.1	A	
Marine Drive	SB Left - Turn	10.0	B	B	0.18	4.2	5.2	A	19.0
	SB Right - Turn						3.4	A	
Marine Drive & Outer Cove Road		**1.9**	**A**				**1.3**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	1.6	A	-
	EB Right - Turn						0.7	A	
	WB Left - Turn	7.7	A	A	0.00	0.0	1.2	A	-
	WB Through	0.0		A	-	-	0.0	A	
Outer Cove Road	NB Left - Turn	9.8	A	A	0.08	1.4	4.5	A	13.0
	NB Right - Turn						2.1	A	
Outer Cove Road & Big Meadow Drive		**1.0**	**A**				**0.4**	**A**	
Big Meadow Drive	EB Left - Turn	9.7	A	A	0.04	0.7	4.3	A	10.4
	EB Right - Turn						2.9	A	
Outer Cove Road	NB Left - Turn	7.7	A	A	0.01	0.0	2.7	A	4.1
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & Pine Line		**2.7**	**A**				**0.8**	**A**	
Pine Line	EB Left - Turn	9.6	A	A	0.08	1.4	4.8	A	14.4
	EB Right - Turn						2.6	A	
Outer Cove Road	NB Left - Turn	7.9	A	A	0.01	0.0	2.6	A	6.1
	NB Through	0.0		A	-	-	0.2	A	
	SB Through	0.0	A	A	-	-	0.2	A	-
	SB Right - Turn						0.1	A	
Outer Cove Road & St. Francis Road		**2.2**	**A**				**0.8**	**A**	
St. Francis Road	EB Left - Turn	10.1	B	B	0.10	2.1	5.3	A	13.6
	EB Right - Turn						3.1	A	
Outer Cove Road	NB Left - Turn	7.8	A	A	0.01	0.0	1.6	A	5.2
	NB Through	0.0		A	-	-	0.1	A	
	SB Through	0.0	A	A	-	-	0.3	A	-
	SB Right - Turn						0.2	A	
Pine Line & Sandalwood Drive		**2.5**	**A**				**1.0**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.1	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.00	0.0	2.0	A	2.3
	WB Through	0.0		A	-	-	0.2	A	
Sandalwood Drive	NB Left - Turn	8.9	A	A	0.03	0.7	4.2	A	10.9
	NB Right - Turn						2.6	A	
Snow's Lane & Ashkay Drive		**1.3**	**A**				**0.8**	**A**	
Snow's Lane	EB Left - Turn	7.8	A	A	0.01	0.0	1.8	A	4.4
	EB Through	0.0		A	-	-	0.6	A	
	WB Through	0.0	A	A	-	-	0.5	A	-
	WB Right - Turn						0.2	A	
Ashkay Drive	SB Left - Turn	10.5	B	B	0.08	2.1	4.4	A	15.8
	SB Right - Turn						3.2	A	

Intersection		S3: Ten-Year Development Projection (2027) - PM Peak Hour							
		Synchro					SimTraffic		
Street	Movement	Delay/Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Cadigan's Road/Stick Pond Road		**7.0**	**A**				**6.0**	**A**	
Cadigan's Road/Stick Pond Road	EB Left - Turn	12.1	B	B	0.20	5.6	20.3	C	19.0
	EB Through						31.2	D	
	EB Right - Turn						7.4	A	
	WB Left - Turn	63.0	F	F	0.66	25.9	32.4	D	28.4
	WB Through	15.0		C	0.03	0.7	19.6	C	18.0
	WB Right - Turn						6.1	A	
Logy Bay Road	NB Left - Turn	7.7	A	A	0.04	0.7	4.4	A	13.5
	NB Through	0.0		A	-	-	3.4	A	
	NB Right - Turn	0.0		A	-	-	2.1	A	
	SB Left - Turn	9.3	A	A	0.01	0.0	5.5	A	5.6
	SB Through	0.0		A	0.00	-	0.9	A	
	SB Right - Turn	0.0		A	-	-	0.7	A	
Logy Bay Road & Clover Dale Close		**1.4**	**A**				**2.6**	**A**	
Clover Dale Close	EB Left - Turn	11.6	B	B	0.06	1.4	10.2	B	7.7
	EB Right - Turn						3.5	A	
Logy Bay Road	NB Left - Turn	7.7	A	A	0.07	1.4	4.6	A	15.2
	NB Through	0.0		A	-	-	3.0	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Logy Bay Road & Marine Drive/ORR On-Ramp		**5.9**	**A**				**3.4**	**A**	
Marine Drive	WB Left - Turn	186.7	F	F	0.69	18.2	36.9	E	12.5
	WB Through	16.5		C	0.14	3.5	28.3	D	17.9
	WB Right - Turn						14.7	B	
Logy Bay Road	NB Left - Turn	9.6	A	A	0.32	9.8	5.3	A	28.5
	NB Through	0.0		A	-	-	1.8	A	1.6
	NB Right - Turn	0.0		A	-	-	1.0	A	
	SB Left - Turn	9.8	A	A	0.02	0.7	9.5	A	9.1
	SB Through	0.0		A	-	-	1.0	A	2.9
	SB Right - Turn	0.0		A	-	-	0.5	A	
Logy Bay Road/Outer Cove Road & Lower Road		**1.1**	**A**				**1.5**	**A**	
Lower Road	WB Left - Turn	14.1	B	B	0.13	2.8	7.8	A	14.4
	WB Right - Turn						5.9	A	
Logy Bay Road/ Outer Cove Road	NB Through	0.0	A	A	-	-	1.3	A	-
	NB Right - Turn						0.6	A	
	SB Left - Turn	8.6	A	A	0.00	0.0	3.4	A	3.4
	SB Through	0.0		A	-	-	0.2	A	
Marine Drive & Cadigan's Road		**3.0**	**A**				**1.8**	**A**	
Cadigan's Road	EB Left - Turn	0.0	A	A	-	-	1.6	A	3.1
	EB Right - Turn						0.9	A	
Marine Drive	NB Left - Turn	9.0	A	A	0.06	1.4	5.4	A	13.1
	NB Through						6.1	A	
	SB Through	0.0	A	A	-	-	1.3	A	0.8
	SB Right - Turn						0.3	A	
Marine Drive & Lower Road		**4.0**	**A**				**1.4**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.0	A	-
	EB Right - Turn						0.0	A	
	WB Left - Turn	7.3	A	A	0.01	0.0	0.8	A	1.3
	WB Through	0.0		A	-	-	0.0	A	
Lower Road	NB Left - Turn	9.0	A	A	0.06	1.4	4.4	A	11.1
	NB Right - Turn						2.4	A	

Marine Drive & Middle Cove Road		**1.9**	**A**				**1.3**	**A**	
Middle Cove Road/Marine Drive	EB Left - Turn	7.8	A	A	0.01	0.0	2.9	A	3.0
	EB Through	0.0		A	-	-	0.1	A	
	WB Through	0.0	A	A	-	-	1.3	A	0.7
	WB Right - Turn						0.6	A	
Marine Drive	SB Left - Turn	9.9	A	A	0.09	2.1	4.9	A	14.4
	SB Right - Turn						2.3	A	
Marine Drive & Outer Cove Road		**5.5**	**A**				**3.3**	**A**	
Marine Drive	EB Through	0.0	A	A	-	-	0.8	A	-
	EB Right - Turn						0.3	A	
	WB Left - Turn	7.5	A	A	0.00	0.0	2.8	A	2.3
	WB Through	0.0		A	-	-	0.2	A	
Outer Cove Road	NB Left - Turn	10.6	B	B	0.24	6.3	5.6	A	17.3
	NB Right - Turn						3.5	A	
Outer Cove Road & Big Meadow Drive		**0.7**	**A**				**0.5**	**A**	
Big Meadow Drive	EB Left - Turn	9.5	A	A	0.02	0.7	4.5	A	9.8
	EB Right - Turn						2.2	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.01	0.0	2.5	A	3.4
	NB Through	0.0		A	-	-	0.5	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.1	A	
Outer Cove Road & Pine Line		**2.3**	**A**				**0.9**	**A**	
Pine Line	EB Left - Turn	10.0	B	B	0.06	1.4	5.4	A	13.6
	EB Right - Turn						2.2	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.03	0.7	2.1	A	3.3
	NB Through	0.0		A	-	-	0.3	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Outer Cove Road & St. Francis Road		**1.3**	**A**				**0.8**	**A**	
St. Francis Road	EB Left - Turn	9.8	A	A	0.04	0.7	7.1	A	10.8
	EB Right - Turn						2.1	A	
Outer Cove Road	NB Left - Turn	7.4	A	A	0.03	0.7	1.5	A	5.9
	NB Through	0.0		A	-	-	0.8	A	
	SB Through	0.0	A	A	-	-	0.1	A	-
	SB Right - Turn						0.0	A	
Pine Line & Sandalwood Drive		**1.7**	**A**				**0.6**	**A**	
Pine Line	EB Through	0.0	A	A	-	-	0.3	A	-
	EB Right - Turn						0.2	A	
	WB Left - Turn	7.4	A	A	0.00	0.0	2.0	A	1.6
	WB Through	0.0		A	-	-	0.1	A	
Sandalwood Drive	NB Left - Turn	9.2	A	A	0.03	0.7	4.4	A	9.0
	NB Right - Turn						2.3	A	
Snow's Lane & Ashkay Drive		**0.8**	**A**				**1.0**	**A**	
Snow's Lane	EB Left - Turn	7.9	A	A	0.02	0.0	1.8	A	6.1
	EB Through	0.0		A	-	-	0.7	A	
	WB Through	0.0	A	A	-	-	0.9	A	-
	WB Right - Turn						0.7	A	
Ashkay Drive	SB Left - Turn	11.5	B	B	0.07	1.4	6.7	A	12.8
	SB Right - Turn						3.8	A	

Intersection		S2: Five-Year Dev. with Improvements (2022)							
		AM Peak Hour				PM Peak Hour			
Street	Movement	Delay/ Veh (s)	APP LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	APP LOS	V/C	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**5.5**	**A**			**8.2**	**A**		
Snow's Lane	EB Left - Turn	5.3	A	0.27	7.0	4.5	A	0.25	7.0
	EB Right - Turn								
Logy Bay Road	NB Left - Turn	3.8	A	0.17	7.0	10.8	B	0.70	28.0
	NB Through								
	SB Through	6.2	A	0.49	7.0	4.8	A	0.28	7.0
	SB Right - Turn								

Intersection		S3: Ten-Year Development Projection (2027)							
		AM Peak Hour				PM Peak Hour			
Street	Movement	Delay/ Veh (s)	APP LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	APP LOS	V/C	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**6.1**	**A**			**11.1**	**B**		
Snow's Lane	EB Left - Turn	5.7	A	0.30	7.0	5.9	A	0.32	7.0
	EB Right - Turn								
Logy Bay Road	NB Left - Turn	3.9	A	0.20	7.0	14.7	B	0.78	70.0
	NB Through								
	SB Through	7.0	A	0.55	7.0	8.6	A	0.60	7.0
	SB Right - Turn								

Appendix F

Synchro/SimTraffic Reports

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	2780	2902	2768	2904	2843	2807	2892
Vehs Exited	2785	2891	2772	2892	2857	2825	2896
Starting Vehs	51	41	46	37	49	59	47
Ending Vehs	46	52	42	49	35	41	43
Travel Distance (km)	2039	2175	2125	2102	2119	2075	2150
Travel Time (hr)	48.5	51.7	50.7	50.1	50.2	49.4	51.0
Total Delay (hr)	4.3	4.9	4.7	4.6	4.3	4.3	4.5
Total Stops	983	1087	962	1008	976	987	1000
Fuel Used (l)	164.6	172.6	169.8	168.5	170.2	166.7	171.1

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	2989	2781	2929	2856
Vehs Exited	2997	2786	2917	2862
Starting Vehs	47	53	40	37
Ending Vehs	39	48	52	37
Travel Distance (km)	2220	2141	2098	2124
Travel Time (hr)	53.1	51.0	49.7	50.5
Total Delay (hr)	5.0	4.6	4.3	4.6
Total Stops	1064	981	951	996
Fuel Used (l)	177.1	171.4	169.4	170.1

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	864	896	903	954	940	896	899
Vehs Exited	858	877	896	932	921	896	883
Starting Vehs	51	41	46	37	49	59	47
Ending Vehs	57	60	53	59	68	59	63
Travel Distance (km)	649	646	702	674	663	651	672
Travel Time (hr)	15.7	15.7	17.2	16.3	15.9	15.6	16.2
Total Delay (hr)	1.5	1.7	2.0	1.8	1.5	1.4	1.7
Total Stops	325	351	319	324	313	293	310
Fuel Used (l)	53.0	52.3	56.5	53.7	53.3	52.0	53.3

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	942	948	908	909
Vehs Exited	917	928	881	898
Starting Vehs	47	53	40	37
Ending Vehs	72	73	67	54
Travel Distance (km)	700	689	631	668
Travel Time (hr)	16.9	16.8	15.2	16.1
Total Delay (hr)	1.7	1.8	1.5	1.7
Total Stops	314	354	295	316
Fuel Used (l)	55.2	56.1	50.5	53.6

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	638	618	603	634	589	621	667
Vehs Exited	655	634	610	657	609	640	685
Starting Vehs	57	60	53	59	68	59	63
Ending Vehs	40	44	46	36	48	40	45
Travel Distance (km)	462	450	469	476	441	473	491
Travel Time (hr)	10.9	10.7	11.1	11.2	10.3	11.3	11.6
Total Delay (hr)	0.9	0.9	0.9	0.9	0.8	1.0	0.9
Total Stops	220	232	210	208	191	229	239
Fuel Used (l)	36.8	35.5	37.3	37.2	35.3	37.8	39.3

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	698	613	690	635
Vehs Exited	730	632	718	659
Starting Vehs	72	73	67	54
Ending Vehs	40	54	39	40
Travel Distance (km)	520	504	511	480
Travel Time (hr)	12.5	11.9	12.1	11.3
Total Delay (hr)	1.2	1.1	1.1	1.0
Total Stops	280	201	247	222
Fuel Used (l)	42.2	40.0	41.6	38.3

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	633	702	634	638	672	666	672
Vehs Exited	632	688	637	627	671	657	665
Starting Vehs	40	44	46	36	48	40	45
Ending Vehs	41	58	43	47	49	49	52
Travel Distance (km)	448	539	484	490	526	474	499
Travel Time (hr)	10.5	12.8	11.4	11.6	12.4	11.3	11.8
Total Delay (hr)	0.8	1.2	0.9	1.0	1.0	1.0	1.0
Total Stops	207	256	218	253	219	259	230
Fuel Used (l)	36.0	42.1	38.9	39.9	41.4	38.7	40.2

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	687	583	631	645
Vehs Exited	675	596	633	652
Starting Vehs	40	54	39	40
Ending Vehs	52	41	37	40
Travel Distance (km)	493	469	459	488
Travel Time (hr)	11.8	11.0	10.7	11.5
Total Delay (hr)	1.1	0.8	0.8	0.9
Total Stops	234	215	193	224
Fuel Used (l)	39.2	36.9	36.7	39.0

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	645	686	628	678	642	624	654
Vehs Exited	640	692	629	676	656	632	663
Starting Vehs	41	58	43	47	49	49	52
Ending Vehs	46	52	42	49	35	41	43
Travel Distance (km)	480	539	470	463	489	478	488
Travel Time (hr)	11.5	12.6	11.1	11.0	11.7	11.2	11.5
Total Delay (hr)	1.1	1.0	0.9	0.9	1.0	0.9	0.9
Total Stops	231	248	215	223	253	206	221
Fuel Used (l)	38.8	42.7	37.1	37.7	40.2	38.1	38.3

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	662	637	700	653
Vehs Exited	675	630	685	658
Starting Vehs	52	41	37	40
Ending Vehs	39	48	52	37
Travel Distance (km)	508	479	497	489
Travel Time (hr)	12.0	11.3	11.8	11.6
Total Delay (hr)	1.0	1.0	0.9	1.0
Total Stops	236	211	216	223
Fuel Used (l)	40.6	38.4	40.7	39.3

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.4	0.1	0.0	0.2	0.0	0.9
Total Del/Veh (s)	11.8	0.3	7.0	4.3	0.5	2.3	1.4	3.5
Stop Delay (hr)	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	8.8	0.1	5.7	1.9	0.0	0.0	0.0	1.7

4: Snow's Lane Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.0	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.5	0.6	0.8	0.5	5.4	2.7	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	0.1	3.6	2.4	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.1	0.1	0.1	3.5	0.8	0.9	0.3	0.0	0.1	1.0
Total Delay (hr)	0.1	0.1	0.0	0.5	0.0	0.0	0.0	0.2	0.0	1.0
Total Del/Veh (s)	18.1	17.9	5.4	6.9	0.5	0.3	2.9	1.9	0.9	3.4
Stop Delay (hr)	0.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	15.9	14.1	4.8	4.0	0.0	0.0	0.8	0.0	0.0	1.6

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total Del/Veh (s)	3.2	8.8	5.4	11.2	11.5	6.4	2.5	1.2	0.6	3.3	1.2	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.9	6.2	5.3	8.4	7.5	5.3	0.6	0.0	0.0	1.1	0.0	0.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.6
Total Del/Veh (s)	3.1
Stop Delay (hr)	0.3
Stop Del/Veh (s)	1.7

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.0	0.4	0.9	5.1	6.0	0.6	0.2	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	3.1	2.5	0.0	0.0	0.4

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.3	0.3	0.2
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.0	3.3	0.3	0.2	1.2	0.2	1.2
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.0	2.5	0.0	0.0	0.4	0.0	0.7

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.0	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)		2.8	2.6	0.2	0.1	0.0	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)		2.6	0.6	0.0	0.0	0.0	0.1

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.1	0.1	0.0	0.1	0.1
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)		3.2	1.5	0.1	0.3	0.2	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)		2.6	0.5	0.0	0.0	0.0	0.5

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.1	0.1	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.3	0.6	3.3	0.1	4.4	2.4	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	1.7	0.1	2.5	2.2	0.3

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.2	0.1	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.9	2.7	2.4	0.2	0.2	0.0	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.9	2.4	0.4	0.0	0.0	0.0	0.5

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1		0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.1		0.0	3.9	2.5	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0		0.0	2.3	2.3	0.3

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Del/Veh (s)	1.9	0.2	0.4	0.1	5.2	2.9	2.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.8	2.1	1.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.0	0.8	0.0	5.2	2.2	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.8	2.2	0.4

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1		0.0	0.3	0.6	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.6	3.4		0.8	0.2	0.0	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	6.4	3.2		0.0	0.0	0.0	0.1

Total Network Performance

Denied Delay (hr)	0.4
Denied Del/Veh (s)	0.5
Total Delay (hr)	4.1
Total Del/Veh (s)	5.1
Stop Delay (hr)	1.7
Stop Del/Veh (s)	2.1

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (m)	40.4	16.3	3.9
Average Queue (m)	16.4	4.8	0.1
95th Queue (m)	29.6	13.4	1.7
Link Distance (m)	507.7		282.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		15.0	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Intersection: 4: Snow's Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	1.7	16.6
Average Queue (m)	0.1	4.3
95th Queue (m)	1.2	13.0
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	NB	SB	SB
Directions Served	LTR	L	L	TR
Maximum Queue (m)	23.3	42.2	8.2	5.6
Average Queue (m)	7.6	15.8	0.4	0.2
95th Queue (m)	16.9	29.4	3.6	1.9
Link Distance (m)	134.6			110.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		75.0	50.0	
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.9	37.7	3.4	7.7
Average Queue (m)	1.3	14.7	0.1	0.4
95th Queue (m)	6.4	27.5	1.8	3.3
Link Distance (m)	111.4	1000.8	361.4	413.9
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	3.8	16.4
Average Queue (m)	0.1	4.9
95th Queue (m)	2.0	13.9
Link Distance (m)	1000.8	132.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	18.1	3.9
Average Queue (m)	8.5	0.1
95th Queue (m)	14.8	2.0
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	9.5	8.8
Average Queue (m)	2.6	0.4
95th Queue (m)	9.1	3.7
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	16.5	7.9
Average Queue (m)	8.0	0.5
95th Queue (m)	14.0	4.4
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	4.2	13.4
Average Queue (m)	0.1	5.1
95th Queue (m)	2.1	12.0
Link Distance (m)	91.2	172.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	15.0	8.8
Average Queue (m)	6.3	0.5
95th Queue (m)	13.2	4.5
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	NB
Directions Served	LR
Maximum Queue (m)	8.9
Average Queue (m)	1.8
95th Queue (m)	7.6
Link Distance (m)	72.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Middle Cove Road & Marine Drive

Movement	SB
Directions Served	LR
Maximum Queue (m)	19.3
Average Queue (m)	11.1
95th Queue (m)	17.2
Link Distance (m)	81.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	0.9	13.0
Average Queue (m)	0.0	2.5
95th Queue (m)	0.9	9.3
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	9.1	3.1
Average Queue (m)	1.2	0.1
95th Queue (m)	6.2	2.2
Link Distance (m)	97.1	413.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	2	126	1	16	1	103	58	9	350	1
Future Vol, veh/h	1	1	2	126	1	16	1	103	58	9	350	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	80	80	80	82	82	82	67	67	67
Heavy Vehicles, %	2	2	2	10	2	12	2	5	30	2	2	2
Mvmt Flow	2	2	4	158	1	20	1	126	71	13	522	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	723	748	523	716	713	162	523	0	0	197	0	0
Stage 1	549	549	-	164	164	-	-	-	-	-	-	-
Stage 2	174	199	-	552	549	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.52	6.32	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.018	3.408	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	342	341	554	335	357	857	1043	-	-	1376	-	-
Stage 1	520	516	-	820	762	-	-	-	-	-	-	-
Stage 2	828	736	-	504	516	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	330	336	554	328	352	857	1043	-	-	1376	-	-
Mov Cap-2 Maneuver	330	336	-	328	352	-	-	-	-	-	-	-
Stage 1	519	509	-	819	761	-	-	-	-	-	-	-
Stage 2	807	735	-	492	509	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	13.8	25.2	0.1	0.2
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1043	-	-	416	353	1376	-	-
HCM Lane V/C Ratio	0.001	-	-	0.019	0.506	0.01	-	-
HCM Control Delay (s)	8.5	0	-	13.8	25.2	7.6	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	2.7	0	-	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	2	1	96	354	1
Future Vol, veh/h	2	2	1	96	354	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	33	60	60	77	77
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	6	6	2	160	460	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	625	461	461	0	-	0
Stage 1	461	-	-	-	-	-
Stage 2	164	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	449	600	1100	-	-	-
Stage 1	635	-	-	-	-	-
Stage 2	865	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	448	600	1100	-	-	-
Mov Cap-2 Maneuver	448	-	-	-	-	-
Stage 1	634	-	-	-	-	-
Stage 2	865	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1100	-	513	-	-
HCM Lane V/C Ratio	0.002	-	0.024	-	-
HCM Control Delay (s)	8.3	0	12.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	26	12	5	254	159	27	5	433	115
Future Vol, veh/h	0	0	0	26	12	5	254	159	27	5	433	115
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	90	90	90	89	89	89
Heavy Vehicles, %	2	2	2	2	2	25	4	4	2	25	2	3
Mvmt Flow	0	0	0	35	16	7	282	177	30	6	487	129

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1320	1384	192	616	0	0	207	0	0
Stage 1	756	756	-	-	-	-	-	-	-
Stage 2	564	628	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.45	4.14	-	-	4.35	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.525	2.236	-	-	2.425	-	-
Pot Cap-1 Maneuver	173	143	794	954	-	-	1238	-	-
Stage 1	464	416	-	-	-	-	-	-	-
Stage 2	569	476	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	121	0	794	954	-	-	1238	-	-
Mov Cap-2 Maneuver	121	0	-	-	-	-	-	-	-
Stage 1	325	0	-	-	-	-	-	-	-
Stage 2	569	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	47.5	6	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	954	-	-	140	1238	-	-
HCM Lane V/C Ratio	0.296	-	-	0.41	0.005	-	-
HCM Control Delay (s)	10.4	-	-	47.5	7.9	-	-
HCM Lane LOS	B	-	-	E	A	-	-
HCM 95th %tile Q(veh)	1.2	-	-	1.8	0	-	-

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	185	57	101	349	91
Future Vol, veh/h	33	185	57	101	349	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	38	210	66	117	447	117

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	755	506	564	0	-	0
Stage 1	506	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	375	564	1008	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	351	564	1008	-	-	-
Mov Cap-2 Maneuver	351	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	3.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1008	-	517	-	-
HCM Lane V/C Ratio	0.066	-	0.479	-	-
HCM Control Delay (s)	8.8	-	18.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2.6	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	70	7	82	27	5	251
Future Vol, veh/h	70	7	82	27	5	251
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	70	70	71	71
Heavy Vehicles, %	2	14	7	4	2	3
Mvmt Flow	80	8	117	39	7	354

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	505	137	0	0	156	0
Stage 1	137	-	-	-	-	-
Stage 2	368	-	-	-	-	-
Critical Hdwy	6.42	6.34	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.426	-	-	2.218	-
Pot Cap-1 Maneuver	527	881	-	-	1424	-
Stage 1	890	-	-	-	-	-
Stage 2	700	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	524	881	-	-	1424	-
Mov Cap-2 Maneuver	524	-	-	-	-	-
Stage 1	885	-	-	-	-	-
Stage 2	700	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.9	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	544	1424	-
HCM Lane V/C Ratio	-	-	0.161	0.005	-
HCM Control Delay (s)	-	-	12.9	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	32	13	17	5	21	62
Future Vol, veh/h	32	13	17	5	21	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	-2	-
Peak Hour Factor	87	87	64	64	69	69
Heavy Vehicles, %	17	20	12	2	5	5
Mvmt Flow	37	15	27	8	30	90

Major/Minor	Minor2		Major2	
Conflicting Flow All	75	75	-	0
Stage 1	75	75	-	-
Stage 2	0	0	-	-
Critical Hdwy	6.52	6.52	-	-
Critical Hdwy Stg 1	5.52	5.52	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.608	4.018	-	-
Pot Cap-1 Maneuver	904	815	-	-
Stage 1	923	833	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	904	0	-	-
Mov Cap-2 Maneuver	904	0	-	-
Stage 1	923	0	-	-
Stage 2	-	0	-	-

Approach	NB	SB
HCM Control Delay, s	9.1	0
HCM LOS	A	

Minor Lane/Major Mvmt	NBLn1	SBT	SBR
Capacity (veh/h)	904	-	-
HCM Lane V/C Ratio	0.038	-	-
HCM Control Delay (s)	9.1	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	12	7	11	3	9
Future Vol, veh/h	21	12	7	11	3	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-4	-
Peak Hour Factor	75	75	64	64	75	75
Heavy Vehicles, %	2	2	2	2	2	11
Mvmt Flow	28	16	11	17	4	12

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	44	0	75	36
Stage 1	-	-	-	-	36	-
Stage 2	-	-	-	-	39	-
Critical Hdwy	-	-	4.12	-	5.62	5.91
Critical Hdwy Stg 1	-	-	-	-	4.62	-
Critical Hdwy Stg 2	-	-	-	-	4.62	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.399
Pot Cap-1 Maneuver	-	-	1564	-	944	1015
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	992	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1564	-	937	1015
Mov Cap-2 Maneuver	-	-	-	-	937	-
Stage 1	-	-	-	-	987	-
Stage 2	-	-	-	-	992	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	994	-	-	1564	-
HCM Lane V/C Ratio	0.016	-	-	0.007	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	68	17	21	112	12
Future Vol, veh/h	3	68	17	21	112	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-4	3	-	-6	-
Peak Hour Factor	68	68	68	68	89	89
Heavy Vehicles, %	33	2	6	2	2	17
Mvmt Flow	4	100	25	31	126	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	56	0	-	0	149	41
Stage 1	-	-	-	-	41	-
Stage 2	-	-	-	-	108	-
Critical Hdwy	4.43	-	-	-	5.22	5.77
Critical Hdwy Stg 1	-	-	-	-	4.22	-
Critical Hdwy Stg 2	-	-	-	-	4.22	-
Follow-up Hdwy	2.497	-	-	-	3.518	3.453
Pot Cap-1 Maneuver	1372	-	-	-	886	996
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	950	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1372	-	-	-	883	996
Mov Cap-2 Maneuver	-	-	-	-	883	-
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	950	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1372	-	-	-	893
HCM Lane V/C Ratio	0.003	-	-	-	0.156
HCM Control Delay (s)	7.6	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	29	154	1	12	29	3
Future Vol, veh/h	29	154	1	12	29	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	-10	0	-
Peak Hour Factor	86	86	41	41	62	62
Heavy Vehicles, %	2	2	2	2	3	2
Mvmt Flow	34	179	2	29	47	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	213	0	157	124
Stage 1	-	-	-	-	124	-
Stage 2	-	-	-	-	33	-
Critical Hdwy	-	-	4.12	-	6.43	6.22
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.218	-	3.527	3.318
Pot Cap-1 Maneuver	-	-	1357	-	832	927
Stage 1	-	-	-	-	899	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1357	-	831	927
Mov Cap-2 Maneuver	-	-	-	-	831	-
Stage 1	-	-	-	-	898	-
Stage 2	-	-	-	-	987	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	9.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	839	-	-	1357	-
HCM Lane V/C Ratio	0.062	-	-	0.002	-
HCM Control Delay (s)	9.6	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	0.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	11	5	35	186	2
Future Vol, veh/h	1	11	5	35	186	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	77	77	92	92
Heavy Vehicles, %	2	2	2	6	3	2
Mvmt Flow	2	20	6	45	202	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	260	203	204	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	57	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	729	838	1368	-	-	-
Stage 1	831	-	-	-	-	-
Stage 2	966	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	726	838	1368	-	-	-
Mov Cap-2 Maneuver	726	-	-	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	966	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1368	-	827	-	-
HCM Lane V/C Ratio	0.005	-	0.026	-	-
HCM Control Delay (s)	7.6	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	36	11	18	127	3
Future Vol, veh/h	5	36	11	18	127	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	70	70	66	66	86	86
Heavy Vehicles, %	33	3	27	2	2	2
Mvmt Flow	7	51	17	27	148	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	211	150	151	0	-	0
Stage 1	150	-	-	-	-	-
Stage 2	61	-	-	-	-	-
Critical Hdwy	6.73	6.23	4.37	-	-	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.327	2.443	-	-	-
Pot Cap-1 Maneuver	713	894	1291	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	888	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	704	894	1291	-	-	-
Mov Cap-2 Maneuver	704	-	-	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1291	-	866	-	-
HCM Lane V/C Ratio	0.013	-	0.068	-	-
HCM Control Delay (s)	7.8	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	56	10	47	169	5
Future Vol, veh/h	1	56	10	47	169	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	0	0	-
Peak Hour Factor	79	79	71	71	71	71
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	1	71	14	66	238	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	336	242	245	0	-	0
Stage 1	242	-	-	-	-	-
Stage 2	94	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	710	819	1321	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	702	819	1321	-	-	-
Mov Cap-2 Maneuver	702	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	949	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1321	-	817	-	-
HCM Lane V/C Ratio	0.011	-	0.088	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	30	7	1	11	6	3
Future Vol, veh/h	30	7	1	11	6	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	0	-
Peak Hour Factor	71	71	75	75	56	56
Heavy Vehicles, %	3	14	2	36	2	2
Mvmt Flow	42	10	1	15	11	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	52	0	64	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	17	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1554	-	942	1022
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	1006	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1554	-	941	1022
Mov Cap-2 Maneuver	-	-	-	-	941	-
Stage 1	-	-	-	-	974	-
Stage 2	-	-	-	-	1006	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	967	-	-	1554	-
HCM Lane V/C Ratio	0.017	-	-	0.001	-
HCM Control Delay (s)	8.8	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	209	146	2	8	10
Future Vol, veh/h	6	209	146	2	8	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	86	86	56	56
Heavy Vehicles, %	17	2	2	50	13	10
Mvmt Flow	7	246	170	2	14	18

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	172	0	-	0	431	171
Stage 1	-	-	-	-	171	-
Stage 2	-	-	-	-	260	-
Critical Hdwy	4.27	-	-	-	6.53	6.3
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	2.353	-	-	-	3.617	3.39
Pot Cap-1 Maneuver	1319	-	-	-	561	852
Stage 1	-	-	-	-	833	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	558	852
Mov Cap-2 Maneuver	-	-	-	-	558	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	690
HCM Lane V/C Ratio	0.005	-	-	-	0.047
HCM Control Delay (s)	7.7	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	3669	3626	3595	3601	3582	3657	3642
Vehs Exited	3682	3626	3608	3585	3587	3653	3656
Starting Vehs	69	57	76	56	59	60	63
Ending Vehs	56	57	63	72	54	64	49
Travel Distance (km)	2823	2660	2648	2701	2699	2683	2659
Travel Time (hr)	68.5	63.9	64.3	65.3	65.8	65.4	64.0
Total Delay (hr)	7.4	6.1	6.4	6.5	7.0	6.7	6.1
Total Stops	993	932	937	923	976	937	934
Fuel Used (l)	225.2	214.1	211.3	215.7	215.1	215.0	210.9

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	3612	3582	3558	3612
Vehs Exited	3601	3561	3561	3613
Starting Vehs	63	50	72	53
Ending Vehs	74	71	69	55
Travel Distance (km)	2717	2651	2651	2689
Travel Time (hr)	65.7	64.0	64.0	65.1
Total Delay (hr)	6.4	6.3	6.6	6.6
Total Stops	985	885	945	943
Fuel Used (l)	217.1	210.5	211.6	214.6

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1130	1054	1091	1092	1066	1095	1081
Vehs Exited	1116	1036	1088	1070	1056	1086	1070
Starting Vehs	69	57	76	56	59	60	63
Ending Vehs	83	75	79	78	69	69	74
Travel Distance (km)	824	747	813	798	768	792	767
Travel Time (hr)	20.3	18.2	20.0	19.5	19.0	19.9	18.5
Total Delay (hr)	2.5	1.9	2.3	2.0	2.2	2.6	1.9
Total Stops	306	271	286	297	326	295	281
Fuel Used (l)	66.0	60.5	65.5	63.5	62.8	64.1	61.2

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1050	1107	997	1072
Vehs Exited	1033	1078	1010	1064
Starting Vehs	63	50	72	53
Ending Vehs	80	79	59	65
Travel Distance (km)	751	775	749	778
Travel Time (hr)	18.3	19.2	18.6	19.2
Total Delay (hr)	1.9	2.2	2.3	2.2
Total Stops	271	289	270	285
Fuel Used (l)	59.9	63.1	60.8	62.7

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	867	877	810	823	763	842	865
Vehs Exited	875	888	824	856	772	854	886
Starting Vehs	83	75	79	78	69	69	74
Ending Vehs	75	64	65	45	60	57	53
Travel Distance (km)	690	645	616	622	605	630	641
Travel Time (hr)	16.8	15.4	14.7	14.9	14.3	15.2	15.3
Total Delay (hr)	1.9	1.4	1.3	1.4	1.2	1.4	1.4
Total Stops	240	236	213	176	177	208	219
Fuel Used (l)	54.7	52.1	48.8	49.5	47.6	49.9	50.7

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	858	871	826	833
Vehs Exited	879	889	833	859
Starting Vehs	80	79	59	65
Ending Vehs	59	61	52	50
Travel Distance (km)	678	683	634	644
Travel Time (hr)	16.4	16.4	15.1	15.4
Total Delay (hr)	1.6	1.6	1.4	1.5
Total Stops	239	213	219	210
Fuel Used (l)	54.3	53.5	50.2	51.1

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	830	828	842	842	879	867	872
Vehs Exited	844	836	840	830	880	862	875
Starting Vehs	75	64	65	45	60	57	53
Ending Vehs	61	56	67	57	59	62	50
Travel Distance (km)	678	619	590	635	705	662	640
Travel Time (hr)	16.3	14.6	14.3	15.2	17.6	15.8	15.5
Total Delay (hr)	1.6	1.3	1.4	1.4	2.2	1.4	1.5
Total Stops	223	206	225	217	235	247	225
Fuel Used (l)	54.0	49.9	47.7	51.3	56.0	52.9	50.6

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	858	781	851	845
Vehs Exited	864	777	833	846
Starting Vehs	59	61	52	50
Ending Vehs	53	65	70	52
Travel Distance (km)	653	565	604	635
Travel Time (hr)	15.9	13.5	14.5	15.3
Total Delay (hr)	1.6	1.2	1.4	1.5
Total Stops	251	202	224	225
Fuel Used (l)	52.1	44.9	47.4	50.7

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	842	867	852	844	874	853	824
Vehs Exited	847	866	856	829	879	851	825
Starting Vehs	61	56	67	57	59	62	50
Ending Vehs	56	57	63	72	54	64	49
Travel Distance (km)	631	649	628	646	621	600	611
Travel Time (hr)	15.0	15.7	15.3	15.7	14.9	14.5	14.7
Total Delay (hr)	1.4	1.5	1.5	1.7	1.3	1.3	1.3
Total Stops	224	219	213	233	238	187	209
Fuel Used (l)	50.5	51.6	49.3	51.4	48.7	48.2	48.4

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	846	823	884	848
Vehs Exited	825	817	885	849
Starting Vehs	53	65	70	52
Ending Vehs	74	71	69	55
Travel Distance (km)	636	628	664	631
Travel Time (hr)	15.1	14.9	15.9	15.2
Total Delay (hr)	1.3	1.3	1.5	1.4
Total Stops	224	181	232	212
Fuel Used (l)	50.8	49.0	53.1	50.1

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	0.5	0.0	0.3	0.3	0.3	0.1	0.0	1.5
Total Del/Veh (s)	18.9	0.2	10.7	4.6	2.4	1.5	0.7	4.9
Stop Delay (hr)	0.5	0.0	0.3	0.1	0.0	0.0	0.0	0.8
Stop Del/Veh (s)	16.3	0.0	9.6	1.2	0.0	0.0	0.0	2.7

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.8	0.7	1.1	0.7	5.4	3.2	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.5	0.0	0.1	0.0	3.7	3.0	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.6
Denied Del/Veh (s)	0.2	0.1	0.1	3.2	1.7	1.7	0.0	0.0	0.0	1.6
Total Delay (hr)	0.2	0.1	0.0	0.4	0.2	0.0	0.0	0.1	0.0	1.0
Total Del/Veh (s)	27.5	18.4	11.0	4.2	1.4	0.7	6.9	0.9	0.4	2.8
Stop Delay (hr)	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	25.1	14.5	10.6	1.2	0.0	0.0	4.7	0.0	0.0	1.1

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0
Total Del/Veh (s)	7.1	11.9	4.5	13.4	8.1	8.0	4.6	3.0	1.9	5.6	0.6	0.2
Stop Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.4	9.2	4.1	10.8	4.5	7.0	0.2	0.0	0.0	3.6	0.0	0.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.8
Total Del/Veh (s)	3.7
Stop Delay (hr)	0.3
Stop Del/Veh (s)	1.3

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.6	1.3	5.0	6.2	0.6	0.2	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	2.9	2.6	0.0	0.0	0.5

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.4	0.4		0.1	0.3
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	7.9	4.0	1.2	0.5		0.1	1.4
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	6.0	3.6	0.0	0.0		0.0	0.4

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)		0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)		2.3	2.2	0.4	0.1	0.0	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)		2.1	0.1	0.0	0.0	0.0	0.0

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.3	0.3	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	5.9	2.3	1.5	0.7	0.1	0.0	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.8	2.2	0.1	0.0	0.0	0.0	0.1

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.1	0.2	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.3
Total Del/Veh (s)	0.5	0.3	2.0	0.2	5.5	2.6	3.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.8	1.8	1.5

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.0	0.0	2.3	2.0	0.3	0.1	0.0	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.2	0.0	2.1	0.1	0.0	0.0	0.0	0.3

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	0.1	3.9	2.3	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	2.3	2.1	0.2

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.8	0.1	1.3	0.6	4.8	2.5	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.0	0.0	2.7	2.2	0.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.0	0.9	0.0	4.5	2.3	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.5	2.1	0.9

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Total Del/Veh (s)	7.9	3.5	3.9	2.4	0.1	0.0	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.9	3.3	0.2	0.0	0.0	0.0	0.0

Total Network Performance

Denied Delay (hr)	0.8
Denied Del/Veh (s)	0.8
Total Delay (hr)	5.8
Total Del/Veh (s)	5.7
Stop Delay (hr)	2.0
Stop Del/Veh (s)	1.9

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (m)	57.7	20.5	12.3	3.4
Average Queue (m)	19.9	9.0	0.6	0.1
95th Queue (m)	40.6	19.0	7.1	1.9
Link Distance (m)	507.7		203.0	282.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		15.0		
Storage Blk Time (%)		1	0	
Queuing Penalty (veh)		6	0	

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	11.5	8.8
Average Queue (m)	0.8	3.2
95th Queue (m)	5.6	10.2
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR
Maximum Queue (m)	24.8	28.0	3.9	10.6	3.4
Average Queue (m)	9.3	12.3	0.1	1.8	0.2
95th Queue (m)	19.5	23.5	2.2	7.5	2.0
Link Distance (m)	134.6		106.2		110.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		75.0		50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.9	32.8	2.4	5.4
Average Queue (m)	1.4	12.6	0.1	0.3
95th Queue (m)	6.6	24.7	1.5	2.2
Link Distance (m)	111.4	1000.8	361.4	413.9
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	7.3	17.9
Average Queue (m)	0.3	8.0
95th Queue (m)	3.6	15.5
Link Distance (m)	1000.8	132.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	15.9	2.6
Average Queue (m)	6.6	0.1
95th Queue (m)	14.1	1.5
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	11.8	3.6
Average Queue (m)	2.0	0.2
95th Queue (m)	8.3	2.4
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.8	14.8
Average Queue (m)	2.8	0.7
95th Queue (m)	9.2	5.9
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	0.9	23.2
Average Queue (m)	0.0	10.6
95th Queue (m)	0.9	18.7
Link Distance (m)	91.2	172.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	14.7	8.0
Average Queue (m)	4.5	0.5
95th Queue (m)	12.1	4.3
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	NB
Directions Served	LR
Maximum Queue (m)	8.9
Average Queue (m)	1.8
95th Queue (m)	7.5
Link Distance (m)	72.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	2.7	15.6
Average Queue (m)	0.1	6.6
95th Queue (m)	1.3	14.2
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	0.9	11.0
Average Queue (m)	0.0	5.5
95th Queue (m)	0.9	11.3
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.1	1.8
Average Queue (m)	0.6	0.1
95th Queue (m)	4.2	1.7
Link Distance (m)	97.1	413.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 6

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	4	1	1	85	1	7	3	438	115	5	126	2
Future Vol, veh/h	4	1	1	85	1	7	3	438	115	5	126	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	89	89	89	89	89	89	79	79	79
Heavy Vehicles, %	2	2	2	8	2	2	2	2	7	2	2	2
Mvmt Flow	8	2	2	96	1	8	3	492	129	6	159	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	740	800	161	738	737	557	162	0	0	621	0	0
Stage 1	173	173	-	563	563	-	-	-	-	-	-	-
Stage 2	567	627	-	175	174	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	333	318	884	326	346	530	1417	-	-	960	-	-
Stage 1	829	756	-	500	509	-	-	-	-	-	-	-
Stage 2	508	476	-	813	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	325	315	884	321	343	530	1417	-	-	960	-	-
Mov Cap-2 Maneuver	325	315	-	321	343	-	-	-	-	-	-	-
Stage 1	827	751	-	499	507	-	-	-	-	-	-	-
Stage 2	498	475	-	803	750	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15.3	20.8	0	0.3
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1417	-	-	361	331	960	-	-
HCM Lane V/C Ratio	0.002	-	-	0.033	0.316	0.007	-	-
HCM Control Delay (s)	7.5	0	-	15.3	20.8	8.8	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.3	0	-	-

Intersection	
Int Delay, s/veh	0.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	1	5	423	130	1
Future Vol, veh/h	1	1	5	423	130	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	85	85	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	4	6	498	151	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	662	152	152	0	-	0
Stage 1	152	-	-	-	-	-
Stage 2	510	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	427	894	1429	-	-	-
Stage 1	876	-	-	-	-	-
Stage 2	603	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	424	894	1429	-	-	-
Mov Cap-2 Maneuver	424	-	-	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	603	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.3	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1429	-	575	-	-
HCM Lane V/C Ratio	0.004	-	0.014	-	-
HCM Control Delay (s)	7.5	0	11.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	19	22	11	322	607	67	13	199	57
Future Vol, veh/h	0	0	0	19	22	11	322	607	67	13	199	57
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	68	68	68	94	94	94	82	82	82
Heavy Vehicles, %	2	2	2	2	5	2	2	2	3	2	2	5
Mvmt Flow	0	0	0	28	32	16	343	646	71	16	243	70

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1678	1713	682	313	0	0	717	0	0
Stage 1	1368	1368	-	-	-	-	-	-	-
Stage 2	310	345	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.55	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.045	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	104	89	450	1247	-	-	884	-	-
Stage 1	237	211	-	-	-	-	-	-	-
Stage 2	744	631	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	74	0	450	1247	-	-	884	-	-
Mov Cap-2 Maneuver	74	0	-	-	-	-	-	-	-
Stage 1	169	0	-	-	-	-	-	-	-
Stage 2	744	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	96.7	2.9	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1247	-	-	107	884	-	-
HCM Lane V/C Ratio	0.275	-	-	0.715	0.018	-	-
HCM Control Delay (s)	9	-	-	96.7	9.1	-	-
HCM Lane LOS	A	-	-	F	A	-	-
HCM 95th %tile Q(veh)	1.1	-	-	3.8	0.1	-	-

Intersection	
Int Delay, s/veh	13.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	103	114	203	427	166	59
Future Vol, veh/h	103	114	203	427	166	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	112	124	228	480	248	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1228	292	336	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	197	747	1223	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	160	747	1223	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	382	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	66.2	2.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1223	-	272	-	-
HCM Lane V/C Ratio	0.187	-	0.867	-	-
HCM Control Delay (s)	8.6	-	66.2	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.7	-	7.4	-	-

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	1	370	87	1	80
Future Vol, veh/h	39	1	370	87	1	80
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	87	87	88	88
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	48	1	425	100	1	91

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	568	475	0	0	525	0
Stage 1	475	-	-	-	-	-
Stage 2	93	-	-	-	-	-
Critical Hdwy	6.43	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	483	590	-	-	1042	-
Stage 1	624	-	-	-	-	-
Stage 2	928	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	483	590	-	-	1042	-
Mov Cap-2 Maneuver	483	-	-	-	-	-
Stage 1	623	-	-	-	-	-
Stage 2	928	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	485	1042	-
HCM Lane V/C Ratio	-	-	0.102	0.001	-
HCM Control Delay (s)	-	-	13.3	8.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	70	22	18	29	11	68
Future Vol, veh/h	70	22	18	29	11	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	-2	-
Peak Hour Factor	89	89	98	98	82	82
Heavy Vehicles, %	2	2	2	2	2	7
Mvmt Flow	79	25	18	30	13	83

Major/Minor	Minor2		Major2	
Conflicting Flow All	55	55	-	0
Stage 1	55	55	-	-
Stage 2	0	0	-	-
Critical Hdwy	6.42	6.52	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-
Pot Cap-1 Maneuver	953	836	-	-
Stage 1	968	849	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	953	0	-	-
Mov Cap-2 Maneuver	953	0	-	-
Stage 1	968	0	-	-
Stage 2	-	0	-	-

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

Minor Lane/Major Mvmt	NBLn1	SBT	SBR
Capacity (veh/h)	953	-	-
HCM Lane V/C Ratio	0.05	-	-
HCM Control Delay (s)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	5	9	29	24	15
Future Vol, veh/h	21	5	9	29	24	15
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-4	-
Peak Hour Factor	68	68	86	86	77	77
Heavy Vehicles, %	2	2	2	3	2	2
Mvmt Flow	31	7	10	34	31	19

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	38	0	89	35
Stage 1	-	-	-	-	35	-
Stage 2	-	-	-	-	54	-
Critical Hdwy	-	-	4.12	-	5.62	5.82
Critical Hdwy Stg 1	-	-	-	-	4.62	-
Critical Hdwy Stg 2	-	-	-	-	4.62	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1572	-	930	1042
Stage 1	-	-	-	-	995	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1572	-	924	1042
Mov Cap-2 Maneuver	-	-	-	-	924	-
Stage 1	-	-	-	-	989	-
Stage 2	-	-	-	-	980	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	966	-	-	1572	-
HCM Lane V/C Ratio	0.052	-	-	0.007	-
HCM Control Delay (s)	8.9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	3	44	66	141	33	8
Future Vol, veh/h	3	44	66	141	33	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-4	3	-	-6	-
Peak Hour Factor	65	65	89	89	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	68	74	158	49	12

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	232	0	-	0	231	153
Stage 1	-	-	-	-	153	-
Stage 2	-	-	-	-	78	-
Critical Hdwy	4.12	-	-	-	5.22	5.62
Critical Hdwy Stg 1	-	-	-	-	4.22	-
Critical Hdwy Stg 2	-	-	-	-	4.22	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1336	-	-	-	818	916
Stage 1	-	-	-	-	921	-
Stage 2	-	-	-	-	970	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1336	-	-	-	815	916
Mov Cap-2 Maneuver	-	-	-	-	815	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	970	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	9.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1336	-	-	-	833
HCM Lane V/C Ratio	0.003	-	-	-	0.072
HCM Control Delay (s)	7.7	0	-	-	9.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Intersection	
Int Delay, s/veh	5.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	55	4	46	162	2
Future Vol, veh/h	23	55	4	46	162	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	-10	0	-
Peak Hour Factor	72	72	83	83	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	76	5	55	176	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	135	70
Stage 1	-	-	-	-	70	-
Stage 2	-	-	-	-	65	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	859	993
Stage 1	-	-	-	-	953	-
Stage 2	-	-	-	-	958	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	856	993
Mov Cap-2 Maneuver	-	-	-	-	856	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	958	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	10.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	857	-	-	1483	-
HCM Lane V/C Ratio	0.208	-	-	0.003	-
HCM Control Delay (s)	10.3	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	7	10	188	57	3
Future Vol, veh/h	1	7	10	188	57	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	80	80	83	83
Heavy Vehicles, %	2	14	2	2	2	2
Mvmt Flow	1	10	13	235	69	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	332	71	73	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	261	-	-	-	-	-
Critical Hdwy	6.42	6.34	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.426	2.218	-	-	-
Pot Cap-1 Maneuver	663	959	1527	-	-	-
Stage 1	952	-	-	-	-	-
Stage 2	783	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	656	959	1527	-	-	-
Mov Cap-2 Maneuver	656	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	783	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1527	-	907	-	-
HCM Lane V/C Ratio	0.008	-	0.013	-	-
HCM Control Delay (s)	7.4	0	9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	12	34	141	38	2
Future Vol, veh/h	14	12	34	141	38	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	65	65	91	91	71	71
Heavy Vehicles, %	7	2	2	2	2	2
Mvmt Flow	22	18	37	155	54	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	285	56	57	0	-	0
Stage 1	56	-	-	-	-	-
Stage 2	229	-	-	-	-	-
Critical Hdwy	6.47	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	695	1011	1547	-	-	-
Stage 1	954	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	677	1011	1547	-	-	-
Mov Cap-2 Maneuver	677	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	797	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1547	-	799	-	-
HCM Lane V/C Ratio	0.024	-	0.05	-	-
HCM Control Delay (s)	7.4	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	11	41	315	56	1
Future Vol, veh/h	3	11	41	315	56	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	0	0	-
Peak Hour Factor	58	58	86	86	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	19	48	366	63	1

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	526	64	64	0	-	0
Stage 1	64	-	-	-	-	-
Stage 2	462	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	576	1007	1538	-	-	-
Stage 1	972	-	-	-	-	-
Stage 2	703	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	554	1007	1538	-	-	-
Mov Cap-2 Maneuver	554	-	-	-	-	-
Stage 1	934	-	-	-	-	-
Stage 2	703	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1538	-	857	-	-
HCM Lane V/C Ratio	0.031	-	0.028	-	-
HCM Control Delay (s)	7.4	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	11	1	27	5	1
Future Vol, veh/h	25	11	1	27	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	0	-
Peak Hour Factor	56	56	73	73	43	43
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	20	1	37	12	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	94	55
Stage 1	-	-	-	-	55	-
Stage 2	-	-	-	-	39	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1537	-	906	1012
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	983	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	905	1012
Mov Cap-2 Maneuver	-	-	-	-	905	-
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	983	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	921	-	-	1537	-
HCM Lane V/C Ratio	0.015	-	-	0.001	-
HCM Control Delay (s)	9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	12	206	261	4	6	6
Future Vol, veh/h	12	206	261	4	6	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	91	91	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	261	287	4	10	10

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	291	0	-	0	580	289
Stage 1	-	-	-	-	289	-
Stage 2	-	-	-	-	291	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1271	-	-	-	477	750
Stage 1	-	-	-	-	760	-
Stage 2	-	-	-	-	759	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1271	-	-	-	470	750
Mov Cap-2 Maneuver	-	-	-	-	470	-
Stage 1	-	-	-	-	749	-
Stage 2	-	-	-	-	759	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1271	-	-	-	578
HCM Lane V/C Ratio	0.012	-	-	-	0.035
HCM Control Delay (s)	7.9	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	3179	3215	3248	3246	3242	3184	3246
Vehs Exited	3193	3181	3243	3250	3249	3203	3265
Starting Vehs	77	37	51	52	51	71	58
Ending Vehs	63	71	56	48	44	52	39
Travel Distance (km)	2414	2322	2453	2358	2469	2401	2467
Travel Time (hr)	58.2	55.9	58.9	56.4	59.8	58.3	59.4
Total Delay (hr)	5.8	5.4	5.9	5.1	6.4	6.0	5.8
Total Stops	1137	1170	1143	1152	1200	1185	1195
Fuel Used (l)	194.7	188.4	197.0	190.1	199.2	192.4	198.3

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	3257	3224	3241	3228
Vehs Exited	3272	3224	3229	3232
Starting Vehs	56	54	48	51
Ending Vehs	41	54	60	43
Travel Distance (km)	2436	2389	2382	2409
Travel Time (hr)	59.0	57.3	57.6	58.1
Total Delay (hr)	6.3	5.7	5.8	5.8
Total Stops	1214	1062	1133	1155
Fuel Used (l)	197.1	191.0	192.7	194.1

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1027	1018	1010	1074	1059	972	1022
Vehs Exited	1035	985	999	1045	1039	949	1012
Starting Vehs	77	37	51	52	51	71	58
Ending Vehs	69	70	62	81	71	94	68
Travel Distance (km)	779	708	747	755	811	732	776
Travel Time (hr)	19.4	17.3	18.3	18.4	20.3	18.1	18.8
Total Delay (hr)	2.4	1.8	2.1	2.0	2.7	2.2	2.0
Total Stops	390	354	349	391	395	382	358
Fuel Used (l)	64.0	57.8	60.7	60.9	65.4	59.1	62.4

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1061	1076	1025	1032
Vehs Exited	1047	1058	993	1017
Starting Vehs	56	54	48	51
Ending Vehs	70	72	80	65
Travel Distance (km)	771	745	719	754
Travel Time (hr)	18.8	18.4	17.6	18.5
Total Delay (hr)	2.2	2.2	2.0	2.2
Total Stops	369	366	341	366
Fuel Used (l)	62.8	60.3	58.3	61.2

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	719	706	730	688	718	734	760
Vehs Exited	735	733	726	723	733	775	771
Starting Vehs	69	70	62	81	71	94	68
Ending Vehs	53	43	66	46	56	53	57
Travel Distance (km)	579	535	570	517	547	571	554
Travel Time (hr)	13.7	12.8	13.5	12.2	13.0	13.8	13.4
Total Delay (hr)	1.2	1.2	1.3	0.9	1.2	1.5	1.3
Total Stops	274	267	250	233	260	271	292
Fuel Used (l)	46.1	42.9	44.8	40.9	44.4	45.3	44.8

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	734	727	763	727
Vehs Exited	757	738	792	746
Starting Vehs	70	72	80	65
Ending Vehs	47	61	51	42
Travel Distance (km)	562	593	584	561
Travel Time (hr)	13.6	14.2	13.9	13.4
Total Delay (hr)	1.5	1.4	1.3	1.3
Total Stops	285	251	269	263
Fuel Used (l)	45.7	47.1	47.0	44.9

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	728	746	733	741	721	733	713
Vehs Exited	740	739	747	717	737	738	720
Starting Vehs	53	43	66	46	56	53	57
Ending Vehs	41	50	52	70	40	48	50
Travel Distance (km)	543	564	579	543	554	541	554
Travel Time (hr)	13.0	13.6	13.8	12.9	13.2	13.0	13.4
Total Delay (hr)	1.2	1.4	1.3	1.1	1.3	1.2	1.3
Total Stops	252	286	272	280	267	272	279
Fuel Used (l)	43.7	46.2	46.5	44.4	44.5	43.4	44.5

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	766	709	669	723
Vehs Exited	750	715	666	726
Starting Vehs	47	61	51	42
Ending Vehs	63	55	54	39
Travel Distance (km)	553	520	494	544
Travel Time (hr)	13.3	12.2	11.8	13.0
Total Delay (hr)	1.3	1.0	1.1	1.2
Total Stops	291	211	245	262
Fuel Used (l)	44.5	41.4	39.9	43.9

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	705	745	775	743	744	745	751
Vehs Exited	683	724	771	765	740	741	762
Starting Vehs	41	50	52	70	40	48	50
Ending Vehs	63	71	56	48	44	52	39
Travel Distance (km)	514	514	559	543	557	556	584
Travel Time (hr)	12.1	12.2	13.3	12.9	13.4	13.3	13.9
Total Delay (hr)	1.0	1.0	1.2	1.1	1.2	1.2	1.2
Total Stops	221	263	272	248	278	260	266
Fuel Used (l)	40.9	41.5	45.0	43.9	45.0	44.5	46.5

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	696	712	784	739
Vehs Exited	718	713	778	740
Starting Vehs	63	55	54	39
Ending Vehs	41	54	60	43
Travel Distance (km)	551	532	586	550
Travel Time (hr)	13.3	12.6	14.2	13.1
Total Delay (hr)	1.4	1.0	1.4	1.2
Total Stops	269	234	278	255
Fuel Used (l)	44.1	42.2	47.5	44.1

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.4	0.1	0.0	0.3	0.1	1.0
Total Del/Veh (s)	12.7	0.4	7.8	5.3	0.6	2.6	1.8	3.8
Stop Delay (hr)	0.1	0.0	0.3	0.0	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	9.9	0.1	6.5	2.9	0.0	0.0	0.0	1.8

4: Snow's Lane Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.6	0.6	0.8	0.4	5.2	3.2	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.3	0.0	0.1	0.1	3.4	2.9	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	0.1	0.1	0.1	3.4	0.9	0.9	0.1	0.0	0.0	1.0
Total Delay (hr)	0.2	0.1	0.0	0.6	0.0	0.0	0.0	0.3	0.0	1.3
Total Del/Veh (s)	27.3	20.1	8.0	8.3	0.6	0.3	3.1	2.2	1.1	4.0
Stop Delay (hr)	0.2	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.7
Stop Del/Veh (s)	25.0	16.4	7.4	5.3	0.0	0.0	0.5	0.0	0.0	2.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Del/Veh (s)	12.5	15.0	8.2	14.4	12.0	8.6	3.9	1.2	0.6	3.0	1.5	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	9.8	11.8	7.9	11.5	6.4	7.1	1.3	0.0	0.0	0.5	0.0	0.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	0.9
Total Del/Veh (s)	3.9
Stop Delay (hr)	0.5
Stop Del/Veh (s)	2.3

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.9	0.4	0.8	4.8	6.0	0.7	0.2	1.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	2.8	2.2	0.0	0.0	0.4

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.2	0.3	0.3
Total Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	7.4	3.3	0.4	0.2	1.2	0.2	1.3
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	5.4	2.7	0.0	0.0	0.2	0.0	0.8

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.5	3.0	2.7	0.2	0.2	0.1	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.3	2.7	0.9	0.0	0.0	0.0	0.2

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.2	0.1	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.0	3.6	1.8	0.2	0.4	0.2	1.3
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	3.0	2.7	0.7	0.0	0.0	0.0	0.8

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.1	0.1	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.7	2.6	0.1	4.5	2.2	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.9	0.0	2.5	1.9	0.4

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.8	2.7	2.2	0.2	0.2	0.0	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.8	2.4	0.2	0.0	0.0	0.0	0.5

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.2	0.1	1.3	0.0	4.2	2.3	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.3	1.9	0.4

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Del/Veh (s)	1.8	0.2	0.2	0.1	5.1	3.0	2.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.3	0.0	0.0	0.0	2.7	2.2	1.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	1.0	0.0	3.8	2.1	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.0	2.1	0.5

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.3	0.5	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	7.8	4.1	5.1	0.8	0.2	0.0	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.8	4.0	2.3	0.1	0.0	0.0	0.1

Total Network Performance

Denied Delay (hr)	0.5
Denied Del/Veh (s)	0.5
Total Delay (hr)	5.3
Total Del/Veh (s)	5.9
Stop Delay (hr)	2.3
Stop Del/Veh (s)	2.5

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (m)	37.2	16.2	4.7
Average Queue (m)	17.2	5.8	0.2
95th Queue (m)	30.5	14.5	1.8
Link Distance (m)	507.7		282.4
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		15.0	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		1	

Intersection: 4: Snow's Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	6.0	18.3
Average Queue (m)	0.2	5.2
95th Queue (m)	2.5	14.0
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	NB	SB	SB
Directions Served	LTR	L	L	TR
Maximum Queue (m)	26.6	42.2	5.4	12.4
Average Queue (m)	8.7	18.1	0.3	1.1
95th Queue (m)	19.7	33.0	2.9	6.8
Link Distance (m)	134.6			110.5
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		75.0	50.0	
Storage Blk Time (%)		0		
Queuing Penalty (veh)		0		

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	13.6	44.6	9.5	5.0
Average Queue (m)	3.8	16.6	0.4	0.3
95th Queue (m)	12.3	31.2	4.4	2.5
Link Distance (m)	111.4	1000.8	361.4	413.9
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	3.5	17.1
Average Queue (m)	0.2	6.0
95th Queue (m)	2.2	14.7
Link Distance (m)	1000.8	132.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	20.4	1.2
Average Queue (m)	9.6	0.1
95th Queue (m)	17.0	1.1
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.9	9.6
Average Queue (m)	3.5	0.5
95th Queue (m)	10.6	4.1
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	19.6	12.5
Average Queue (m)	9.6	1.6
95th Queue (m)	14.9	7.9
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	3.6	14.2
Average Queue (m)	0.1	5.5
95th Queue (m)	1.9	12.4
Link Distance (m)	91.2	172.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	17.2	8.4
Average Queue (m)	7.0	0.3
95th Queue (m)	14.7	3.5
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.0
Average Queue (m)	3.7
95th Queue (m)	10.8
Link Distance (m)	72.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	3.6	25.8
Average Queue (m)	0.1	11.3
95th Queue (m)	2.6	18.4
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.7	12.8
Average Queue (m)	0.1	3.2
95th Queue (m)	1.6	9.9
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	9.1	8.3
Average Queue (m)	1.5	0.4
95th Queue (m)	6.9	3.9
Link Distance (m)	97.1	413.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	2	13	132	2	17	5	122	61	10	409	2
Future Vol, veh/h	2	2	13	132	2	17	5	122	61	10	409	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	80	80	80	82	82	82	67	67	67
Heavy Vehicles, %	2	2	2	10	2	12	2	5	30	2	2	2
Mvmt Flow	4	4	26	165	3	21	6	149	74	15	610	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	852	877	612	855	841	186	613	0	0	223	0	0
Stage 1	642	642	-	198	198	-	-	-	-	-	-	-
Stage 2	210	235	-	657	643	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.52	6.32	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.018	3.408	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	287	493	270	301	831	966	-	-	1346	-	-
Stage 1	463	469	-	786	737	-	-	-	-	-	-	-
Stage 2	792	710	-	441	468	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	266	280	493	248	294	831	966	-	-	1346	-	-
Mov Cap-2 Maneuver	266	280	-	248	294	-	-	-	-	-	-	-
Stage 1	460	461	-	780	732	-	-	-	-	-	-	-
Stage 2	764	705	-	407	460	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	44.3	0.2	0.2
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	966	-	-	414	270	1346	-	-
HCM Lane V/C Ratio	0.006	-	-	0.082	0.699	0.011	-	-
HCM Control Delay (s)	8.8	0	-	14.5	44.3	7.7	0	-
HCM Lane LOS	A	A	-	B	E	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	4.7	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	4	3	113	412	2
Future Vol, veh/h	3	4	3	113	412	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	33	60	60	77	77
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	9	12	5	188	535	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	735	537	538	0	-	0
Stage 1	537	-	-	-	-	-
Stage 2	198	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	387	544	1030	-	-	-
Stage 1	586	-	-	-	-	-
Stage 2	835	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	385	544	1030	-	-	-
Mov Cap-2 Maneuver	385	-	-	-	-	-
Stage 1	583	-	-	-	-	-
Stage 2	835	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	13.2	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1030	-	462	-	-
HCM Lane V/C Ratio	0.005	-	0.046	-	-
HCM Control Delay (s)	8.5	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	28	13	6	265	182	29	6	490	133
Future Vol, veh/h	0	0	0	28	13	6	265	182	29	6	490	133
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	90	90	90	89	89	89
Heavy Vehicles, %	2	2	2	2	2	25	4	4	2	25	2	3
Mvmt Flow	0	0	0	37	17	8	294	202	32	7	551	149

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1446	1520	218	700	0	0	234	0	0
Stage 1	806	806	-	-	-	-	-	-	-
Stage 2	640	714	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.45	4.14	-	-	4.35	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.525	2.236	-	-	2.425	-	-
Pot Cap-1 Maneuver	145	119	767	888	-	-	1209	-	-
Stage 1	439	395	-	-	-	-	-	-	-
Stage 2	525	435	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	96	0	767	888	-	-	1209	-	-
Mov Cap-2 Maneuver	96	0	-	-	-	-	-	-	-
Stage 1	292	0	-	-	-	-	-	-	-
Stage 2	525	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	69.7	6.2	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	114	1209	-	-
HCM Lane V/C Ratio	0.332	-	-	0.55	0.006	-	-
HCM Control Delay (s)	11.1	-	-	69.7	8	-	-
HCM Lane LOS	B	-	-	F	A	-	-
HCM 95th %tile Q(veh)	1.5	-	-	2.6	0	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	36	194	60	122	415	98
Future Vol, veh/h	36	194	60	122	415	98
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	41	220	70	142	532	126

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	877	595	658	0	-	0
Stage 1	595	-	-	-	-	-
Stage 2	282	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	318	502	930	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	763	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	294	502	930	-	-	-
Mov Cap-2 Maneuver	294	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	763	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	23.3	3	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	930	-	452	-	-
HCM Lane V/C Ratio	0.075	-	0.578	-	-
HCM Control Delay (s)	9.2	-	23.3	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	3.6	-	-

Intersection	
Int Delay, s/veh	1.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	73	8	99	29	6	305
Future Vol, veh/h	73	8	99	29	6	305
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	70	70	71	71
Heavy Vehicles, %	2	14	7	4	2	3
Mvmt Flow	83	9	141	41	8	430

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	608	162	0	0	182	0
Stage 1	162	-	-	-	-	-
Stage 2	446	-	-	-	-	-
Critical Hdwy	6.42	6.34	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.426	-	-	2.218	-
Pot Cap-1 Maneuver	459	852	-	-	1393	-
Stage 1	867	-	-	-	-	-
Stage 2	645	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	455	852	-	-	1393	-
Mov Cap-2 Maneuver	455	-	-	-	-	-
Stage 1	860	-	-	-	-	-
Stage 2	645	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.3	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	477	1393	-
HCM Lane V/C Ratio	-	-	0.193	0.006	-
HCM Control Delay (s)	-	-	14.3	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	34	14	18	6	22	65
Future Vol, veh/h	34	14	18	6	22	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	-2	-
Peak Hour Factor	87	87	64	64	69	69
Heavy Vehicles, %	17	20	12	2	5	5
Mvmt Flow	39	16	28	9	32	94

Major/Minor	Minor2		Major2	
Conflicting Flow All	79	79	-	0
Stage 1	79	79	-	-
Stage 2	0	0	-	-
Critical Hdwy	6.52	6.52	-	-
Critical Hdwy Stg 1	5.52	5.52	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.608	4.018	-	-
Pot Cap-1 Maneuver	899	811	-	-
Stage 1	919	829	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	899	0	-	-
Mov Cap-2 Maneuver	899	0	-	-
Stage 1	919	0	-	-
Stage 2	-	0	-	-

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

Minor Lane/Major Mvmt	NBLn1	SBT	SBR
Capacity (veh/h)	899	-	-
HCM Lane V/C Ratio	0.042	-	-
HCM Control Delay (s)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	13	8	12	4	10
Future Vol, veh/h	22	13	8	12	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-4	-
Peak Hour Factor	75	75	64	64	75	75
Heavy Vehicles, %	2	2	2	2	2	11
Mvmt Flow	29	17	13	19	5	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	46	0	83	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	-	-	4.12	-	5.62	5.91
Critical Hdwy Stg 1	-	-	-	-	4.62	-
Critical Hdwy Stg 2	-	-	-	-	4.62	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.399
Pot Cap-1 Maneuver	-	-	1562	-	936	1013
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1562	-	929	1013
Mov Cap-2 Maneuver	-	-	-	-	929	-
Stage 1	-	-	-	-	985	-
Stage 2	-	-	-	-	987	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	987	-	-	1562	-
HCM Lane V/C Ratio	0.019	-	-	0.008	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	71	18	24	119	13
Future Vol, veh/h	4	71	18	24	119	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-4	3	-	-6	-
Peak Hour Factor	68	68	68	68	89	89
Heavy Vehicles, %	33	2	6	2	2	17
Mvmt Flow	6	104	26	35	134	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	61	0	-	0	160	44
Stage 1	-	-	-	-	44	-
Stage 2	-	-	-	-	116	-
Critical Hdwy	4.43	-	-	-	5.22	5.77
Critical Hdwy Stg 1	-	-	-	-	4.22	-
Critical Hdwy Stg 2	-	-	-	-	4.22	-
Follow-up Hdwy	2.497	-	-	-	3.518	3.453
Pot Cap-1 Maneuver	1366	-	-	-	877	992
Stage 1	-	-	-	-	993	-
Stage 2	-	-	-	-	945	-
Platoon blocked, %			-	-	-	
Mov Cap-1 Maneuver	1366	-	-	-	873	992
Mov Cap-2 Maneuver	-	-	-	-	873	-
Stage 1	-	-	-	-	988	-
Stage 2	-	-	-	-	945	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1366	-	-	-	883
HCM Lane V/C Ratio	0.004	-	-	-	0.168
HCM Control Delay (s)	7.6	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	31	163	2	13	33	4
Future Vol, veh/h	31	163	2	13	33	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	-10	0	-
Peak Hour Factor	86	86	41	41	62	62
Heavy Vehicles, %	2	2	2	2	3	2
Mvmt Flow	36	190	5	32	53	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	226	0	173	131
Stage 1	-	-	-	-	131	-
Stage 2	-	-	-	-	42	-
Critical Hdwy	-	-	4.12	-	6.43	6.22
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.218	-	3.527	3.318
Pot Cap-1 Maneuver	-	-	1342	-	815	919
Stage 1	-	-	-	-	893	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1342	-	812	919
Mov Cap-2 Maneuver	-	-	-	-	812	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	822	-	-	1342	-
HCM Lane V/C Ratio	0.073	-	-	0.004	-
HCM Control Delay (s)	9.7	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	12	6	37	194	5
Future Vol, veh/h	4	12	6	37	194	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	77	77	92	92
Heavy Vehicles, %	2	2	2	6	3	2
Mvmt Flow	7	22	8	48	211	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	278	214	216	0	-	0
Stage 1	214	-	-	-	-	-
Stage 2	64	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	712	826	1354	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	959	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	708	826	1354	-	-	-
Mov Cap-2 Maneuver	708	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	959	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1354	-	793	-	-
HCM Lane V/C Ratio	0.006	-	0.037	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	38	12	21	135	4
Future Vol, veh/h	6	38	12	21	135	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	70	70	66	66	86	86
Heavy Vehicles, %	33	3	27	2	2	2
Mvmt Flow	9	54	18	32	157	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	228	160	162	0	-	0
Stage 1	160	-	-	-	-	-
Stage 2	68	-	-	-	-	-
Critical Hdwy	6.73	6.23	4.37	-	-	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.327	2.443	-	-	-
Pot Cap-1 Maneuver	697	882	1278	-	-	-
Stage 1	799	-	-	-	-	-
Stage 2	882	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	687	882	1278	-	-	-
Mov Cap-2 Maneuver	687	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	882	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	2.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1278	-	849	-	-
HCM Lane V/C Ratio	0.014	-	0.074	-	-
HCM Control Delay (s)	7.9	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	102	24	49	176	6
Future Vol, veh/h	2	102	24	49	176	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	0	0	-
Peak Hour Factor	79	79	71	71	71	71
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	3	129	34	69	248	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	389	252	256	0	-	0
Stage 1	252	-	-	-	-	-
Stage 2	137	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	670	809	1309	-	-	-
Stage 1	835	-	-	-	-	-
Stage 2	917	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	652	809	1309	-	-	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	812	-	-	-	-	-
Stage 2	917	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	2.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1309	-	805	-	-
HCM Lane V/C Ratio	0.026	-	0.164	-	-
HCM Control Delay (s)	7.8	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.6	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	13	2	12	13	4
Future Vol, veh/h	32	13	2	12	13	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	0	-
Peak Hour Factor	71	71	75	75	56	56
Heavy Vehicles, %	3	14	2	36	2	2
Mvmt Flow	45	18	3	16	23	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	63	0	76	54
Stage 1	-	-	-	-	54	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1540	-	927	1013
Stage 1	-	-	-	-	969	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1540	-	925	1013
Mov Cap-2 Maneuver	-	-	-	-	925	-
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	1001	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	944	-	-	1540	-
HCM Lane V/C Ratio	0.032	-	-	0.002	-
HCM Control Delay (s)	8.9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	219	155	3	10	14
Future Vol, veh/h	8	219	155	3	10	14
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	86	86	56	56
Heavy Vehicles, %	17	2	2	50	13	10
Mvmt Flow	9	258	180	3	18	25

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	183	0	-	0	458	182
Stage 1	-	-	-	-	182	-
Stage 2	-	-	-	-	276	-
Critical Hdwy	4.27	-	-	-	6.53	6.3
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	2.353	-	-	-	3.617	3.39
Pot Cap-1 Maneuver	1307	-	-	-	541	840
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	746	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1307	-	-	-	537	840
Mov Cap-2 Maneuver	-	-	-	-	537	-
Stage 1	-	-	-	-	816	-
Stage 2	-	-	-	-	746	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.7
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1307	-	-	-	680
HCM Lane V/C Ratio	0.007	-	-	-	0.063
HCM Control Delay (s)	7.8	0	-	-	10.7
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4096	4091	4044	4030	4033	4036	4177
Vehs Exited	4131	4078	4042	4036	4034	4037	4173
Starting Vehs	84	59	76	60	70	62	69
Ending Vehs	49	72	78	54	69	61	73
Travel Distance (km)	3066	3117	2935	3074	3027	2976	3139
Travel Time (hr)	75.7	76.0	71.8	75.2	75.0	72.7	78.3
Total Delay (hr)	9.1	8.3	7.9	8.5	9.1	8.0	10.3
Total Stops	1063	1120	1060	1037	1087	1077	1192
Fuel Used (l)	246.8	248.8	236.5	244.2	243.6	237.4	252.7

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4129	3962	4074	4066
Vehs Exited	4130	3945	4071	4068
Starting Vehs	59	67	75	63
Ending Vehs	58	84	78	61
Travel Distance (km)	3034	2946	3065	3038
Travel Time (hr)	74.1	71.9	76.2	74.7
Total Delay (hr)	7.8	7.9	9.8	8.7
Total Stops	1121	1068	1124	1092
Fuel Used (l)	244.5	237.0	248.2	244.0

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1246	1171	1190	1200	1161	1167	1232
Vehs Exited	1258	1147	1172	1171	1150	1149	1197
Starting Vehs	84	59	76	60	70	62	69
Ending Vehs	72	83	94	89	81	80	104
Travel Distance (km)	900	842	831	860	846	820	918
Travel Time (hr)	23.0	20.4	20.7	21.4	21.6	20.3	23.9
Total Delay (hr)	3.3	2.1	2.7	2.6	3.1	2.4	3.9
Total Stops	338	351	335	354	333	319	403
Fuel Used (l)	74.3	67.5	68.2	68.3	69.5	66.0	74.8

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1182	1167	1230	1192
Vehs Exited	1153	1157	1202	1178
Starting Vehs	59	67	75	63
Ending Vehs	88	77	103	75
Travel Distance (km)	812	788	906	852
Travel Time (hr)	20.1	19.3	23.6	21.4
Total Delay (hr)	2.3	2.1	4.0	2.8
Total Stops	350	332	365	344
Fuel Used (l)	66.5	64.6	74.7	69.4

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	986	1015	914	926	938	989	975
Vehs Exited	997	1023	946	942	951	985	1021
Starting Vehs	72	83	94	89	81	80	104
Ending Vehs	61	75	62	73	68	84	58
Travel Distance (km)	717	810	664	754	705	751	753
Travel Time (hr)	17.7	20.3	16.1	18.5	16.8	18.4	18.6
Total Delay (hr)	2.2	2.7	1.7	2.2	1.5	2.1	2.4
Total Stops	236	277	217	227	239	266	270
Fuel Used (l)	57.6	65.3	53.5	60.3	56.1	59.5	60.8

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	974	958	980	965
Vehs Exited	985	969	1018	983
Starting Vehs	88	77	103	75
Ending Vehs	77	66	65	59
Travel Distance (km)	753	746	772	742
Travel Time (hr)	18.4	18.5	19.3	18.3
Total Delay (hr)	2.1	2.3	2.7	2.2
Total Stops	285	273	276	250
Fuel Used (l)	60.8	59.5	61.5	59.5

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	963	935	948	973	932	942	987
Vehs Exited	945	949	933	976	938	957	984
Starting Vehs	61	75	62	73	68	84	58
Ending Vehs	79	61	77	70	62	69	61
Travel Distance (km)	749	738	719	741	728	715	749
Travel Time (hr)	18.2	17.6	17.2	18.0	17.6	17.3	18.2
Total Delay (hr)	2.1	1.6	1.7	1.9	1.8	1.8	2.1
Total Stops	245	226	250	215	238	257	251
Fuel Used (l)	59.6	58.2	56.6	58.1	58.5	57.0	59.3

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1005	885	948	956
Vehs Exited	1009	875	949	952
Starting Vehs	77	66	65	59
Ending Vehs	73	76	64	60
Travel Distance (km)	742	669	674	722
Travel Time (hr)	18.1	16.2	16.2	17.5
Total Delay (hr)	1.9	1.6	1.5	1.8
Total Stops	239	214	243	238
Fuel Used (l)	59.3	53.6	54.5	57.5

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	901	970	992	931	1002	938	983
Vehs Exited	931	959	991	947	995	946	971
Starting Vehs	79	61	77	70	62	69	61
Ending Vehs	49	72	78	54	69	61	73
Travel Distance (km)	700	727	721	719	748	690	719
Travel Time (hr)	16.8	17.7	17.8	17.4	19.0	16.8	17.6
Total Delay (hr)	1.6	1.8	1.9	1.8	2.6	1.7	1.9
Total Stops	244	266	258	241	277	235	268
Fuel Used (l)	55.2	57.8	58.2	57.5	59.5	54.8	57.8

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	968	952	916	949
Vehs Exited	983	944	902	957
Starting Vehs	73	76	64	60
Ending Vehs	58	84	78	61
Travel Distance (km)	726	743	714	721
Travel Time (hr)	17.5	18.0	17.1	17.5
Total Delay (hr)	1.6	2.0	1.7	1.9
Total Stops	247	249	240	249
Fuel Used (l)	57.8	59.4	57.5	57.6

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total Delay (hr)	1.0	0.0	0.6	0.3	0.4	0.1	0.0	2.5
Total Del/Veh (s)	30.6	0.5	19.4	5.2	2.7	1.6	0.9	7.1
Stop Delay (hr)	1.0	0.0	0.6	0.1	0.0	0.0	0.0	1.7
Stop Del/Veh (s)	28.0	0.0	18.4	1.6	0.0	0.0	0.0	4.8

4: Snow's Lane Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	2.3	0.7	1.1	1.2	5.7	3.1	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.0	0.0	0.1	0.1	4.0	2.8	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.7
Denied Del/Veh (s)	0.1	0.1	0.1	3.3	2.0	1.9	0.1	0.0	0.0	1.8
Total Delay (hr)	0.1	0.1	0.0	0.4	0.3	0.0	0.0	0.1	0.0	1.2
Total Del/Veh (s)	27.2	24.1	10.3	4.7	1.6	0.9	6.0	1.1	0.5	2.9
Stop Delay (hr)	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	24.7	20.3	9.7	1.5	0.0	0.0	3.7	0.0	0.0	1.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5	0.1	0.0	0.0	0.0
Total Del/Veh (s)	9.8	17.4	5.4	19.1	16.6	9.9	4.4	3.6	2.4	5.4	0.6	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	7.8	13.8	5.1	16.4	12.2	9.0	0.5	0.0	0.0	3.6	0.0	0.1

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.0
Denied Del/Veh (s)	0.0
Total Delay (hr)	1.2
Total Del/Veh (s)	4.6
Stop Delay (hr)	0.5
Stop Del/Veh (s)	1.8

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.1	0.1	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.5	1.4	5.3	6.3	0.5	0.2	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	3.0	2.4	0.0	0.0	0.5

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.4	0.4	0.1	0.2	0.4
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	9.2	4.9	1.2	0.6	3.2	0.1	1.4
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	7.4	4.7	0.0	0.0	1.8	0.0	0.4

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.1	2.2	2.4	0.5	0.1	0.0	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	4.0	2.0	0.1	0.0	0.0	0.0	0.1

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.4	0.4	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Total Del/Veh (s)	8.2	2.5	1.7	0.8	0.2	0.2	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	6.0	2.1	0.2	0.0	0.0	0.0	0.2

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.1	0.1	0.2	0.4	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Total Del/Veh (s)	0.5	0.2	2.5	0.2	5.5	3.8	3.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.5	0.0	2.6	2.3	1.5

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.1	0.0	2.3	2.2	0.3	0.1	0.0	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.3	0.0	2.2	0.1	0.0	0.0	0.0	0.3

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.3	0.2	2.2	0.1	4.1	2.1	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.3	0.0	2.2	1.9	0.3

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	2.4	0.1	1.3	0.6	5.1	2.5	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.8	0.0	0.0	0.0	2.9	2.2	0.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.0	1.1	0.0	4.6	2.3	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.2	0.0	2.6	2.1	0.9

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.0	0.0	0.2	0.2	0.0
Total Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.0	0.4
Total Del/Veh (s)	9.5	2.4	4.1	2.6	0.1	0.0	2.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	7.2	2.2	0.2	0.0	0.0	0.0	0.0

Total Network Performance

Denied Delay (hr)	0.9
Denied Del/Veh (s)	0.8
Total Delay (hr)	7.7
Total Del/Veh (s)	6.8
Stop Delay (hr)	3.1
Stop Del/Veh (s)	2.7

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (m)	75.8	21.8	37.4	2.0
Average Queue (m)	27.8	10.0	1.6	0.1
95th Queue (m)	57.9	20.2	15.0	1.5
Link Distance (m)	507.7		203.0	282.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		15.0		
Storage Blk Time (%)		2	0	
Queuing Penalty (veh)		11	0	

Intersection: 4: Snow's Lane

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	14.6	10.9
Average Queue (m)	1.6	3.4
95th Queue (m)	8.4	10.8
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)	0	
Queuing Penalty (veh)	0	
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	NB	NB	SB	SB
Directions Served	LTR	L	TR	L	TR
Maximum Queue (m)	28.3	33.1	3.2	8.7	2.8
Average Queue (m)	9.5	13.6	0.1	1.9	0.1
95th Queue (m)	20.3	25.2	1.5	7.4	1.2
Link Distance (m)	134.6		106.2		110.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		75.0		50.0	
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	12.9	38.4	16.2	10.5
Average Queue (m)	3.3	13.9	1.3	0.6
95th Queue (m)	10.7	27.8	8.5	4.2
Link Distance (m)	111.4	1000.8	361.4	413.9
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	4.1	14.9
Average Queue (m)	0.2	8.0
95th Queue (m)	2.5	14.7
Link Distance (m)	1000.8	132.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	19.5	2.4
Average Queue (m)	6.7	0.1
95th Queue (m)	15.1	1.3
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	13.8	5.9
Average Queue (m)	3.7	0.2
95th Queue (m)	11.3	3.2
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	18.2	17.9	0.7
Average Queue (m)	6.7	1.8	0.0
95th Queue (m)	14.0	9.5	0.7
Link Distance (m)	162.7	204.0	156.9
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 30: Outer Cove Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	3.6	20.5
Average Queue (m)	0.2	10.6
95th Queue (m)	2.5	17.5
Link Distance (m)	91.2	172.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	13.8	7.8
Average Queue (m)	4.9	0.5
95th Queue (m)	12.2	4.2
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	9.7
Average Queue (m)	0.1	3.2
95th Queue (m)	1.3	10.2
Link Distance (m)	276.3	72.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	3.7	18.8
Average Queue (m)	0.3	7.9
95th Queue (m)	2.9	15.4
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.7	13.2
Average Queue (m)	0.1	5.9
95th Queue (m)	1.9	11.6
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	9.1	8.8
Average Queue (m)	1.0	0.4
95th Queue (m)	5.6	4.1
Link Distance (m)	97.1	413.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 11

Intersection	
Int Delay, s/veh	3.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	2	9	89	2	8	18	501	120	6	160	3
Future Vol, veh/h	5	2	9	89	2	8	18	501	120	6	160	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	89	89	89	89	89	89	79	79	79
Heavy Vehicles, %	2	2	2	8	2	2	2	2	7	2	2	2
Mvmt Flow	10	4	18	100	2	9	20	563	135	8	203	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	897	959	205	903	894	631	207	0	0	698	0	0
Stage 1	221	221	-	671	671	-	-	-	-	-	-	-
Stage 2	676	738	-	232	223	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	261	257	836	252	280	481	1364	-	-	898	-	-
Stage 1	781	720	-	436	455	-	-	-	-	-	-	-
Stage 2	443	424	-	758	719	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	248	248	836	237	270	481	1364	-	-	898	-	-
Mov Cap-2 Maneuver	248	248	-	237	270	-	-	-	-	-	-	-
Stage 1	761	713	-	425	444	-	-	-	-	-	-	-
Stage 2	422	413	-	730	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	30.8	0.2	0.3
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1364	-	-	410	248	898	-	-
HCM Lane V/C Ratio	0.015	-	-	0.078	0.449	0.008	-	-
HCM Control Delay (s)	7.7	0	-	14.5	30.8	9	0	-
HCM Lane LOS	A	A	-	B	D	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2.2	0	-	-

Intersection	
Int Delay, s/veh	0.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	3	8	484	163	2
Future Vol, veh/h	2	3	8	484	163	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	85	85	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	12	9	569	190	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	778	191	192	0	-	0
Stage 1	191	-	-	-	-	-
Stage 2	587	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	365	851	1381	-	-	-
Stage 1	841	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	361	851	1381	-	-	-
Mov Cap-2 Maneuver	361	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	556	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.8	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1381	-	552	-	-
HCM Lane V/C Ratio	0.007	-	0.036	-	-
HCM Control Delay (s)	7.6	0	11.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	23	12	336	678	70	14	232	68
Future Vol, veh/h	0	0	0	20	23	12	336	678	70	14	232	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	68	68	68	94	94	94	82	82	82
Heavy Vehicles, %	2	2	2	2	5	2	2	2	3	2	2	5
Mvmt Flow	0	0	0	29	34	18	357	721	74	17	283	83

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1831	1872	758	366	0	0	795	0	0
Stage 1	1472	1472	-	-	-	-	-	-	-
Stage 2	359	400	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.55	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.045	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	84	71	407	1193	-	-	826	-	-
Stage 1	210	188	-	-	-	-	-	-	-
Stage 2	707	596	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	58	0	407	1193	-	-	826	-	-
Mov Cap-2 Maneuver	58	0	-	-	-	-	-	-	-
Stage 1	144	0	-	-	-	-	-	-	-
Stage 2	707	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	171.6	2.9	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1193	-	-	85	826	-	-
HCM Lane V/C Ratio	0.3	-	-	0.952	0.021	-	-
HCM Control Delay (s)	9.3	-	-	171.6	9.5	-	-
HCM Lane LOS	A	-	-	F	A	-	-
HCM 95th %tile Q(veh)	1.3	-	-	5.3	0.1	-	-

Intersection	
Int Delay, s/veh	35.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	121	119	212	491	205	65
Future Vol, veh/h	121	119	212	491	205	65
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	132	129	238	552	306	97

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1383	355	403	0	-	0
Stage 1	355	-	-	-	-	-
Stage 2	1028	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	158	689	1156	-	-	-
Stage 1	710	-	-	-	-	-
Stage 2	345	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 125	689	1156	-	-	-
Mov Cap-2 Maneuver	~ 125	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	345	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	188.7	2.7	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1156	-	210	-	-
HCM Lane V/C Ratio	0.206	-	1.242	-	-
HCM Control Delay (s)	8.9	-	188.7	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.8	-	13.6	-	-

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

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	42	2	429	91	2	112
Future Vol, veh/h	42	2	429	91	2	112
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	87	87	88	88
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	52	2	493	105	2	127

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	677	546	0	0	598	0
Stage 1	546	-	-	-	-	-
Stage 2	131	-	-	-	-	-
Critical Hdwy	6.43	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	417	538	-	-	979	-
Stage 1	578	-	-	-	-	-
Stage 2	893	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	416	538	-	-	979	-
Mov Cap-2 Maneuver	416	-	-	-	-	-
Stage 1	577	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	420	979	-
HCM Lane V/C Ratio	-	-	0.129	0.002	-
HCM Control Delay (s)	-	-	14.8	8.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	73	23	19	31	12	71
Future Vol, veh/h	73	23	19	31	12	71
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	-2	-
Peak Hour Factor	89	89	98	98	82	82
Heavy Vehicles, %	2	2	2	2	2	7
Mvmt Flow	82	26	19	32	15	87

Major/Minor	Minor2		Major2	
Conflicting Flow All	59	59	-	0
Stage 1	59	59	-	-
Stage 2	0	0	-	-
Critical Hdwy	6.42	6.52	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-
Pot Cap-1 Maneuver	948	832	-	-
Stage 1	964	846	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	948	0	-	-
Mov Cap-2 Maneuver	948	0	-	-
Stage 1	964	0	-	-
Stage 2	-	0	-	-

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

Minor Lane/Major Mvmt	NBLn1	SBT	SBR
Capacity (veh/h)	948	-	-
HCM Lane V/C Ratio	0.054	-	-
HCM Control Delay (s)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	22	6	10	31	25	16
Future Vol, veh/h	22	6	10	31	25	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-4	-
Peak Hour Factor	68	68	86	86	77	77
Heavy Vehicles, %	2	2	2	3	2	2
Mvmt Flow	32	9	12	36	32	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	41	0	97	37
Stage 1	-	-	-	-	37	-
Stage 2	-	-	-	-	60	-
Critical Hdwy	-	-	4.12	-	5.62	5.82
Critical Hdwy Stg 1	-	-	-	-	4.62	-
Critical Hdwy Stg 2	-	-	-	-	4.62	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1568	-	922	1040
Stage 1	-	-	-	-	994	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1568	-	915	1040
Mov Cap-2 Maneuver	-	-	-	-	915	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.8	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	960	-	-	1568	-
HCM Lane V/C Ratio	0.055	-	-	0.007	-
HCM Control Delay (s)	9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	46	69	150	38	9
Future Vol, veh/h	4	46	69	150	38	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-4	3	-	-6	-
Peak Hour Factor	65	65	89	89	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	71	78	169	56	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	247	0	-	0	246	163
Stage 1	-	-	-	-	163	-
Stage 2	-	-	-	-	83	-
Critical Hdwy	4.12	-	-	-	5.22	5.62
Critical Hdwy Stg 1	-	-	-	-	4.22	-
Critical Hdwy Stg 2	-	-	-	-	4.22	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1319	-	-	-	806	906
Stage 1	-	-	-	-	914	-
Stage 2	-	-	-	-	967	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1319	-	-	-	802	906
Mov Cap-2 Maneuver	-	-	-	-	802	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	967	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.8
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1319	-	-	-	820
HCM Lane V/C Ratio	0.005	-	-	-	0.084
HCM Control Delay (s)	7.7	0	-	-	9.8
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	24	61	5	48	172	3
Future Vol, veh/h	24	61	5	48	172	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	-10	0	-
Peak Hour Factor	72	72	83	83	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	33	85	6	58	187	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	118	0	146	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	70	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1470	-	846	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	953	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1470	-	843	985
Mov Cap-2 Maneuver	-	-	-	-	843	-
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	953	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	845	-	-	1470	-
HCM Lane V/C Ratio	0.225	-	-	0.004	-
HCM Control Delay (s)	10.5	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	8	11	196	60	7
Future Vol, veh/h	5	8	11	196	60	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	80	80	83	83
Heavy Vehicles, %	2	14	2	2	2	2
Mvmt Flow	7	12	14	245	72	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	349	76	80	0	-	0
Stage 1	76	-	-	-	-	-
Stage 2	273	-	-	-	-	-
Critical Hdwy	6.42	6.34	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.426	2.218	-	-	-
Pot Cap-1 Maneuver	648	953	1518	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	773	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	641	953	1518	-	-	-
Mov Cap-2 Maneuver	641	-	-	-	-	-
Stage 1	937	-	-	-	-	-
Stage 2	773	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1518	-	803	-	-
HCM Lane V/C Ratio	0.009	-	0.024	-	-
HCM Control Delay (s)	7.4	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	13	36	150	43	3
Future Vol, veh/h	15	13	36	150	43	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	65	65	91	91	71	71
Heavy Vehicles, %	7	2	2	2	2	2
Mvmt Flow	23	20	40	165	61	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	308	63	65	0	-	0
Stage 1	63	-	-	-	-	-
Stage 2	245	-	-	-	-	-
Critical Hdwy	6.47	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	674	1002	1537	-	-	-
Stage 1	947	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	654	1002	1537	-	-	-
Mov Cap-2 Maneuver	654	-	-	-	-	-
Stage 1	920	-	-	-	-	-
Stage 2	784	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.9	1.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1537	-	780	-	-
HCM Lane V/C Ratio	0.026	-	0.055	-	-
HCM Control Delay (s)	7.4	0	9.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	39	86	328	59	2
Future Vol, veh/h	4	39	86	328	59	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	0	0	-
Peak Hour Factor	58	58	86	86	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	67	100	381	66	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	648	67	68	0	-	0
Stage 1	67	-	-	-	-	-
Stage 2	581	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	502	1004	1533	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	460	1004	1533	-	-	-
Mov Cap-2 Maneuver	460	-	-	-	-	-
Stage 1	889	-	-	-	-	-
Stage 2	636	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.3	1.6	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1533	-	904	-	-
HCM Lane V/C Ratio	0.065	-	0.082	-	-
HCM Control Delay (s)	7.5	0	9.3	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	27	25	2	29	10	2
Future Vol, veh/h	27	25	2	29	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	0	-
Peak Hour Factor	56	56	73	73	43	43
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	45	3	40	23	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	93	0	117	71
Stage 1	-	-	-	-	71	-
Stage 2	-	-	-	-	46	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1501	-	879	991
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	976	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1501	-	877	991
Mov Cap-2 Maneuver	-	-	-	-	877	-
Stage 1	-	-	-	-	950	-
Stage 2	-	-	-	-	976	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	894	-	-	1501	-
HCM Lane V/C Ratio	0.031	-	-	0.002	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	228	275	5	7	8
Future Vol, veh/h	15	228	275	5	7	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	91	91	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	289	302	5	12	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	307	0	-	0	632	305
Stage 1	-	-	-	-	305	-
Stage 2	-	-	-	-	327	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1254	-	-	-	444	735
Stage 1	-	-	-	-	748	-
Stage 2	-	-	-	-	731	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1254	-	-	-	436	735
Mov Cap-2 Maneuver	-	-	-	-	436	-
Stage 1	-	-	-	-	735	-
Stage 2	-	-	-	-	731	-

Approach	EB	WB	SB
HCM Control Delay, s	0.5	0	11.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1254	-	-	-	557
HCM Lane V/C Ratio	0.015	-	-	-	0.045
HCM Control Delay (s)	7.9	0	-	-	11.8
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4089	4139	4065	4100	4131	4073	4158
Vehs Exited	4102	4133	4080	4113	4145	4069	4164
Starting Vehs	51	43	57	55	48	41	51
Ending Vehs	38	49	42	42	34	45	45
Travel Distance (km)	2039	2002	2029	2047	1967	1972	2053
Travel Time (hr)	48.9	48.1	48.4	48.7	47.0	47.0	49.5
Total Delay (hr)	4.8	4.8	4.5	4.5	4.3	4.4	4.9
Total Stops	916	918	885	953	960	915	945
Fuel Used (l)	165.7	163.1	165.0	166.9	160.6	160.9	168.8

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4265	3998	4022	4099
Vehs Exited	4271	4004	4041	4116
Starting Vehs	38	48	56	44
Ending Vehs	32	42	37	33
Travel Distance (km)	2108	1965	1999	2018
Travel Time (hr)	50.4	46.8	47.6	48.2
Total Delay (hr)	4.7	4.3	4.3	4.5
Total Stops	970	884	898	921
Fuel Used (l)	172.1	160.4	162.5	164.6

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1264	1340	1319	1301	1286	1286	1350
Vehs Exited	1251	1318	1310	1280	1269	1260	1342
Starting Vehs	51	43	57	55	48	41	51
Ending Vehs	64	65	66	76	65	67	59
Travel Distance (km)	650	646	673	658	603	620	666
Travel Time (hr)	16.0	15.8	16.5	16.0	14.6	14.9	16.6
Total Delay (hr)	1.9	1.9	2.0	1.7	1.5	1.5	2.1
Total Stops	290	283	317	313	319	293	324
Fuel Used (l)	53.9	52.1	56.0	54.1	49.5	50.2	55.5

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1369	1262	1257	1306
Vehs Exited	1334	1256	1254	1287
Starting Vehs	38	48	56	44
Ending Vehs	73	54	59	58
Travel Distance (km)	669	622	632	644
Travel Time (hr)	16.5	15.3	15.3	15.7
Total Delay (hr)	1.8	1.8	1.5	1.8
Total Stops	296	322	279	301
Fuel Used (l)	55.2	51.3	51.6	52.9

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	946	927	919	924	928	959	977
Vehs Exited	962	948	944	957	950	979	991
Starting Vehs	64	65	66	76	65	67	59
Ending Vehs	48	44	41	43	43	47	45
Travel Distance (km)	467	448	471	462	451	465	492
Travel Time (hr)	11.1	10.7	11.0	10.9	10.7	11.1	11.6
Total Delay (hr)	1.0	1.0	0.8	0.9	0.9	1.0	1.0
Total Stops	233	237	193	221	205	211	215
Fuel Used (l)	37.7	36.6	37.4	37.3	35.9	38.0	39.8

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	951	943	953	938
Vehs Exited	980	943	960	963
Starting Vehs	73	54	59	58
Ending Vehs	44	54	52	39
Travel Distance (km)	474	450	471	465
Travel Time (hr)	11.1	10.6	11.2	11.0
Total Delay (hr)	0.9	0.9	0.9	0.9
Total Stops	202	188	204	209
Fuel Used (l)	38.7	37.4	38.0	37.7

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	951	952	962	903	959	932	899
Vehs Exited	956	954	954	906	953	930	904
Starting Vehs	48	44	41	43	43	47	45
Ending Vehs	43	42	49	40	49	49	40
Travel Distance (km)	467	463	461	447	458	454	439
Travel Time (hr)	10.9	11.1	11.0	10.4	11.0	10.8	10.4
Total Delay (hr)	0.9	1.0	1.0	0.8	1.1	1.0	0.9
Total Stops	192	217	198	201	237	202	210
Fuel Used (l)	37.4	38.2	37.8	36.6	38.0	37.4	36.1

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	992	923	889	936
Vehs Exited	996	938	903	939
Starting Vehs	44	54	52	39
Ending Vehs	40	39	38	38
Travel Distance (km)	497	465	436	459
Travel Time (hr)	11.8	10.8	10.3	10.9
Total Delay (hr)	1.1	0.8	0.9	0.9
Total Stops	235	180	193	206
Fuel Used (l)	40.3	37.0	35.5	37.4

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	928	920	865	972	958	896	932
Vehs Exited	933	913	872	970	973	900	927
Starting Vehs	43	42	49	40	49	49	40
Ending Vehs	38	49	42	42	34	45	45
Travel Distance (km)	455	445	425	480	455	434	456
Travel Time (hr)	10.9	10.6	9.9	11.3	10.7	10.3	10.9
Total Delay (hr)	0.9	1.0	0.7	1.0	0.9	0.9	1.0
Total Stops	201	181	177	218	199	209	196
Fuel Used (l)	36.7	36.2	33.8	38.9	37.2	35.3	37.4

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	953	870	923	917
Vehs Exited	961	867	924	924
Starting Vehs	40	39	38	38
Ending Vehs	32	42	37	33
Travel Distance (km)	469	429	460	451
Travel Time (hr)	11.0	10.1	10.9	10.7
Total Delay (hr)	0.9	0.8	1.0	0.9
Total Stops	237	194	222	197
Fuel Used (l)	37.9	34.7	37.5	36.6

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.1	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.7	0.7	0.5	0.1	4.9	3.3	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.5	0.0	0.0	0.0	3.3	2.9	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Denied Del/Veh (s)	4.2	0.2	0.3	3.4	0.8	0.9	0.0	0.0	0.0	1.1
Total Delay (hr)	0.2	0.1	0.0	0.7	0.0	0.0	0.0	0.3	0.0	1.3
Total Del/Veh (s)	25.3	19.2	7.1	9.1	0.6	0.3	3.4	2.0	0.9	4.0
Stop Delay (hr)	0.2	0.1	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.7
Stop Del/Veh (s)	23.4	15.7	6.6	6.1	0.0	0.0	1.2	0.0	0.0	2.2

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	1.0	0.2	0.1	0.2	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total Del/Veh (s)	8.0	15.2	7.8	14.4	10.1	3.8	3.6	1.1	0.6	3.6	1.4	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	6.3	11.9	7.5	11.8	4.5	2.6	1.2	0.0	0.0	0.9	0.0	0.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	0.8
Total Del/Veh (s)	3.7
Stop Delay (hr)	0.5
Stop Del/Veh (s)	2.2

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.1	0.3	0.9	4.6	5.9	0.6	0.2	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	2.7	2.5	0.0	0.0	0.5

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.2	0.3	0.2
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	6.6	3.3	0.4	0.2	1.5	0.2	1.2
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.5	2.8	0.0	0.0	0.6	0.0	0.7

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.3	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.2	2.7	2.4	0.2	0.2	0.1	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.4	2.5	0.5	0.0	0.0	0.0	0.2

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.1	0.1	0.0	0.0	0.1
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	6.6	3.4	1.7	0.2	0.3	0.2	1.3
Stop Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.0	2.7	0.6	0.0	0.0	0.0	0.8

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.1	0.1	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.4	0.6	2.4	0.0	4.6	2.5	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.8	0.0	2.5	2.2	0.4

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	5.6	2.6	2.3	0.0	0.2	0.0	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.4	2.4	0.3	0.0	0.0	0.0	0.5

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.2	0.0	3.0	0.0	4.4	2.7	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.4	2.4	0.5

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Del/Veh (s)	2.2	0.2	0.2	0.1	5.2	3.3	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.1	0.0	0.0	0.0	2.7	2.3	1.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	1.0	0.0	3.7	2.1	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.0	2.0	0.4

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.4	0.3	0.3
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.4	3.7	4.5	0.7	0.2	0.0	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	6.2	3.6	1.8	0.1	0.0	0.0	0.1

Total Network Performance

Denied Delay (hr)	0.6
Denied Del/Veh (s)	0.6
Total Delay (hr)	3.9
Total Del/Veh (s)	3.4
Stop Delay (hr)	1.8
Stop Del/Veh (s)	1.5

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	5.7	18.4
Average Queue (m)	0.4	5.0
95th Queue (m)	3.3	14.2
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR
Maximum Queue (m)	17.2	17.2	49.9	0.6	9.0	12.1
Average Queue (m)	4.8	4.7	19.2	0.0	0.5	1.2
95th Queue (m)	12.6	13.6	37.7	0.6	4.7	6.3
Link Distance (m)		134.1		104.9		108.6
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	25.0		75.0		50.0	
Storage Blk Time (%)	0	0	0			
Queuing Penalty (veh)	0	0	0			

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (m)	14.1	32.9	19.6	6.5	5.5
Average Queue (m)	3.8	12.4	4.4	0.4	0.4
95th Queue (m)	11.5	25.8	13.4	3.4	3.4
Link Distance (m)	111.2		1000.3	367.9	411.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		30.0			
Storage Blk Time (%)		1	0		
Queuing Penalty (veh)		0	0		

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	5.1	16.5
Average Queue (m)	0.3	5.9
95th Queue (m)	2.8	14.0
Link Distance (m)	1000.3	131.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	22.0	6.4
Average Queue (m)	9.7	0.3
95th Queue (m)	17.2	3.7
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	11.0	5.6
Average Queue (m)	3.9	0.2
95th Queue (m)	11.1	2.6
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	21.2	11.9
Average Queue (m)	9.9	1.4
95th Queue (m)	16.1	7.1
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	EB	WB	NB
Directions Served	TR	LT	LR
Maximum Queue (m)	0.6	3.7	18.1
Average Queue (m)	0.0	0.1	6.2
95th Queue (m)	0.6	1.7	13.7
Link Distance (m)	134.4	91.2	172.6
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	17.4	11.6
Average Queue (m)	6.5	0.6
95th Queue (m)	14.0	5.2
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	0.9	9.0
Average Queue (m)	0.0	3.9
95th Queue (m)	0.9	11.0
Link Distance (m)	276.3	72.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	1.5	20.8
Average Queue (m)	0.1	11.6
95th Queue (m)	1.5	18.3
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.8	12.8
Average Queue (m)	0.1	3.1
95th Queue (m)	1.7	10.0
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	8.9	10.1
Average Queue (m)	1.8	0.4
95th Queue (m)	7.8	4.0
Link Distance (m)	97.1	411.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	7.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↱			↕			↕	
Traffic Vol, veh/h	2	2	13	132	2	17	5	122	61	10	409	2
Future Vol, veh/h	2	2	13	132	2	17	5	122	61	10	409	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	80	80	80	82	82	82	67	67	67
Heavy Vehicles, %	2	2	2	10	2	12	2	5	30	2	2	2
Mvmt Flow	4	4	26	165	3	21	6	149	74	15	610	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	852	877	612	855	841	186	613	0	0	223	0	0
Stage 1	642	642	-	198	198	-	-	-	-	-	-	-
Stage 2	210	235	-	657	643	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.52	6.32	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.018	3.408	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	280	287	493	270	301	831	966	-	-	1346	-	-
Stage 1	463	469	-	786	737	-	-	-	-	-	-	-
Stage 2	792	710	-	441	468	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	266	280	493	248	294	831	966	-	-	1346	-	-
Mov Cap-2 Maneuver	266	280	-	248	294	-	-	-	-	-	-	-
Stage 1	460	461	-	780	732	-	-	-	-	-	-	-
Stage 2	764	705	-	407	460	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	40	0.2	0.2
HCM LOS	B	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	966	-	-	414	248	697	1346	-	-
HCM Lane V/C Ratio	0.006	-	-	0.082	0.665	0.034	0.011	-	-
HCM Control Delay (s)	8.8	0	-	14.5	44.3	10.3	7.7	0	-
HCM Lane LOS	A	A	-	B	E	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	4.2	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	28	13	6	265	182	29	6	490	133
Future Vol, veh/h	0	0	0	28	13	6	265	182	29	6	490	133
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	90	90	90	89	89	89
Heavy Vehicles, %	2	2	2	2	2	25	4	4	2	25	2	3
Mvmt Flow	0	0	0	37	17	8	294	202	32	7	551	149

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1446	1520	218	700	0	0	234	0	0
Stage 1	806	806	-	-	-	-	-	-	-
Stage 2	640	714	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.45	4.14	-	-	4.35	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.525	2.236	-	-	2.425	-	-
Pot Cap-1 Maneuver	145	119	767	888	-	-	1209	-	-
Stage 1	439	395	-	-	-	-	-	-	-
Stage 2	525	435	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	96	0	767	888	-	-	1209	-	-
Mov Cap-2 Maneuver	96	0	-	-	-	-	-	-	-
Stage 1	292	0	-	-	-	-	-	-	-
Stage 2	525	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	42.5	6.2	0.1
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	96	767	1209	-	-
HCM Lane V/C Ratio	0.332	-	-	0.389	0.033	0.006	-	-
HCM Control Delay (s)	11.1	-	-	64.6	9.9	8	-	-
HCM Lane LOS	B	-	-	F	A	A	-	-
HCM 95th %tile Q(veh)	1.5	-	-	1.6	0.1	0	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	5223	5333	4996	5220	5217	5269	5249
Vehs Exited	5227	5320	5007	5220	5225	5271	5238
Starting Vehs	54	49	66	50	65	64	55
Ending Vehs	50	62	55	50	57	62	66
Travel Distance (km)	2548	2622	2478	2554	2541	2604	2556
Travel Time (hr)	61.7	63.3	59.9	61.6	61.5	62.7	62.0
Total Delay (hr)	6.2	6.3	5.7	6.1	6.1	6.0	6.2
Total Stops	838	826	775	787	832	800	814
Fuel Used (l)	206.8	211.4	199.9	206.9	206.5	210.9	208.8

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5291	5175	5185	5222
Vehs Exited	5289	5180	5189	5216
Starting Vehs	61	60	52	46
Ending Vehs	63	55	48	48
Travel Distance (km)	2610	2499	2549	2556
Travel Time (hr)	63.0	60.3	61.3	61.7
Total Delay (hr)	5.9	5.6	5.8	6.0
Total Stops	768	730	808	798
Fuel Used (l)	211.5	202.4	206.2	207.1

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1516	1593	1491	1500	1482	1510	1570
Vehs Exited	1510	1573	1483	1474	1487	1514	1553
Starting Vehs	54	49	66	50	65	64	55
Ending Vehs	60	69	74	76	60	60	72
Travel Distance (km)	727	772	749	719	720	746	777
Travel Time (hr)	18.1	19.1	18.6	17.4	17.7	18.2	19.2
Total Delay (hr)	2.2	2.3	2.2	1.8	2.0	1.9	2.2
Total Stops	277	244	259	235	248	260	274
Fuel Used (l)	60.1	63.5	61.5	58.1	59.2	61.0	64.2

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1499	1473	1499	1511
Vehs Exited	1489	1453	1485	1503
Starting Vehs	61	60	52	46
Ending Vehs	71	80	66	57
Travel Distance (km)	726	711	736	738
Travel Time (hr)	17.7	17.5	17.7	18.1
Total Delay (hr)	1.8	1.9	1.8	2.0
Total Stops	241	231	240	251
Fuel Used (l)	59.1	57.7	59.6	60.4

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1221	1272	1093	1193	1196	1274	1244
Vehs Exited	1225	1277	1106	1217	1194	1272	1260
Starting Vehs	60	69	74	76	60	60	72
Ending Vehs	56	64	61	52	62	62	56
Travel Distance (km)	594	628	529	593	588	628	613
Travel Time (hr)	14.2	15.1	12.6	14.4	14.0	15.1	14.7
Total Delay (hr)	1.3	1.4	1.0	1.4	1.2	1.4	1.4
Total Stops	188	192	162	164	163	174	179
Fuel Used (l)	47.8	50.3	42.6	48.4	47.4	50.8	50.0

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1223	1234	1273	1222
Vehs Exited	1247	1263	1284	1235
Starting Vehs	71	80	66	57
Ending Vehs	47	51	55	44
Travel Distance (km)	607	588	632	600
Travel Time (hr)	14.5	14.1	15.3	14.4
Total Delay (hr)	1.2	1.3	1.6	1.3
Total Stops	176	180	201	173
Fuel Used (l)	49.2	48.1	50.6	48.5

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1233	1235	1229	1267	1260	1260	1201
Vehs Exited	1232	1242	1222	1258	1267	1263	1200
Starting Vehs	56	64	61	52	62	62	56
Ending Vehs	57	57	68	61	55	59	57
Travel Distance (km)	597	624	606	614	606	618	579
Travel Time (hr)	14.5	14.9	14.5	14.7	14.7	14.8	13.9
Total Delay (hr)	1.4	1.4	1.3	1.4	1.5	1.4	1.3
Total Stops	216	209	190	191	207	187	187
Fuel Used (l)	48.5	50.1	48.9	49.8	50.0	50.2	46.8

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1298	1212	1193	1238
Vehs Exited	1285	1212	1199	1236
Starting Vehs	47	51	55	44
Ending Vehs	60	51	49	49
Travel Distance (km)	654	588	594	608
Travel Time (hr)	15.9	13.9	14.2	14.6
Total Delay (hr)	1.5	1.0	1.3	1.3
Total Stops	186	155	177	187
Fuel Used (l)	53.1	47.0	47.8	49.2

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1253	1233	1183	1260	1279	1225	1234
Vehs Exited	1260	1228	1196	1271	1277	1222	1225
Starting Vehs	57	57	68	61	55	59	57
Ending Vehs	50	62	55	50	57	62	66
Travel Distance (km)	630	598	595	627	627	611	587
Travel Time (hr)	15.0	14.1	14.2	15.1	15.0	14.7	14.1
Total Delay (hr)	1.3	1.2	1.2	1.5	1.4	1.3	1.3
Total Stops	157	181	164	197	214	179	174
Fuel Used (l)	50.4	47.4	47.0	50.6	50.0	48.9	47.7

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1271	1256	1220	1239
Vehs Exited	1268	1252	1221	1243
Starting Vehs	60	51	49	49
Ending Vehs	63	55	48	48
Travel Distance (km)	624	612	588	610
Travel Time (hr)	15.0	14.8	14.0	14.6
Total Delay (hr)	1.4	1.4	1.2	1.3
Total Stops	165	164	190	175
Fuel Used (l)	50.1	49.6	48.2	49.0

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.9	0.7	0.9	0.5	5.3	3.3	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.6	0.0	0.0	0.0	3.8	3.0	0.1

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.4	0.0	0.0	0.0	0.0	0.8
Denied Del/Veh (s)	4.2	0.2	0.2	3.3	2.0	2.1	0.0	0.0	0.0	1.9
Total Delay (hr)	0.1	0.2	0.0	0.4	0.3	0.0	0.0	0.1	0.0	1.2
Total Del/Veh (s)	29.5	27.3	10.6	4.8	1.7	1.0	7.3	0.9	0.4	3.0
Stop Delay (hr)	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.5
Stop Del/Veh (s)	27.1	23.5	10.1	1.6	0.0	0.0	5.3	0.0	0.0	1.2

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.3	0.0	0.0	0.4	0.5	0.5	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.4	0.1	0.0	0.0	0.0
Total Del/Veh (s)	11.9	21.4	5.2	21.1	6.1	5.5	3.6	2.9	1.7	8.3	0.8	0.3
Stop Delay (hr)	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	10.0	17.8	5.0	18.7	3.0	4.9	0.4	0.0	0.0	6.5	0.2	0.0

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	1.1
Total Del/Veh (s)	4.2
Stop Delay (hr)	0.5
Stop Del/Veh (s)	2.0

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.2	0.5	1.1	5.2	6.4	0.7	0.2	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	3.0	2.7	0.0	0.0	0.6

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.4	0.5	0.1	0.1	0.4
Total Delay (hr)	0.1	0.0	0.2	0.0	0.0	0.0	0.3
Total Del/Veh (s)	8.2	3.2	1.3	0.6	1.9	0.1	1.4
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	6.3	2.9	0.0	0.0	1.3	0.0	0.4

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.4	2.2	2.3	0.4	0.1	0.2	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.4	2.0	0.1	0.0	0.0	0.0	0.1

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.4	0.4	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	8.0	2.5	1.7	0.8	0.2	0.0	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.8	2.1	0.1	0.0	0.0	0.0	0.2

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Total Del/Veh (s)	0.6	0.2	1.9	0.2	5.6	3.6	3.2
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.7	2.3	1.5

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.3	0.1	2.3	2.1	0.4	0.1	0.0	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.4	0.0	2.2	0.1	0.0	0.0	0.0	0.3

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.2	0.1	1.9	0.1	4.2	2.1	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.3	1.8	0.3

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	3.1	0.1	1.5	0.7	5.0	2.4	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.2	0.0	0.0	0.0	2.9	2.0	0.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.0	1.1	0.0	4.5	2.2	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.2	0.0	2.5	2.1	0.9

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.3	0.0	0.0	0.3
Total Del/Veh (s)	8.2	3.3	3.8	2.2	0.1	0.0	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.7	2.9	0.3	0.0	0.0	0.0	0.1

Total Network Performance

Denied Delay (hr)	1.1
Denied Del/Veh (s)	0.8
Total Delay (hr)	4.9
Total Del/Veh (s)	3.3
Stop Delay (hr)	1.5
Stop Del/Veh (s)	1.0

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	10.8	10.0
Average Queue (m)	1.0	3.4
95th Queue (m)	6.2	10.6
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR
Maximum Queue (m)	12.4	25.0	32.8	3.9	9.9	4.0
Average Queue (m)	3.5	7.3	13.0	0.2	2.2	0.2
95th Queue (m)	10.3	17.6	25.7	2.1	8.2	2.1
Link Distance (m)		134.1		104.9		108.6
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	25.0		75.0		50.0	
Storage Blk Time (%)	0	0				
Queuing Penalty (veh)	0	0				

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (m)	12.9	30.3	12.6	15.4	11.8
Average Queue (m)	3.5	9.7	2.3	0.6	0.9
95th Queue (m)	11.0	22.4	7.9	4.7	5.7
Link Distance (m)	111.2		1000.3	367.9	411.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		30.0			
Storage Blk Time (%)		1			
Queuing Penalty (veh)		0			

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	4.1	19.0
Average Queue (m)	0.2	7.2
95th Queue (m)	2.2	14.4
Link Distance (m)	1000.3	131.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	15.5	4.5
Average Queue (m)	6.9	0.2
95th Queue (m)	14.4	2.0
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	15.3	5.4
Average Queue (m)	3.4	0.2
95th Queue (m)	11.5	2.5
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	14.5	14.9
Average Queue (m)	6.5	1.5
95th Queue (m)	13.3	8.5
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	NB
Directions Served	LR
Maximum Queue (m)	21.5
Average Queue (m)	10.8
95th Queue (m)	18.0
Link Distance (m)	172.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	16.8	8.2
Average Queue (m)	5.6	0.5
95th Queue (m)	13.4	3.9
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	NB
Directions Served	LR
Maximum Queue (m)	9.7
Average Queue (m)	2.7
95th Queue (m)	9.5
Link Distance (m)	72.8
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	6.3	19.0
Average Queue (m)	0.3	7.7
95th Queue (m)	3.1	15.1
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	4.4	11.4
Average Queue (m)	0.2	5.7
95th Queue (m)	2.5	11.7
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	11.2	8.3
Average Queue (m)	1.4	0.4
95th Queue (m)	7.1	4.2
Link Distance (m)	97.1	411.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↱			↕			↕	
Traffic Vol, veh/h	5	2	9	89	2	8	18	501	120	6	160	3
Future Vol, veh/h	5	2	9	89	2	8	18	501	120	6	160	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	89	89	89	89	89	89	79	79	79
Heavy Vehicles, %	2	2	2	8	2	2	2	2	7	2	2	2
Mvmt Flow	10	4	18	100	2	9	20	563	135	8	203	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	897	959	205	903	894	631	207	0	0	698	0	0
Stage 1	221	221	-	671	671	-	-	-	-	-	-	-
Stage 2	676	738	-	232	223	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	261	257	836	252	280	481	1364	-	-	898	-	-
Stage 1	781	720	-	436	455	-	-	-	-	-	-	-
Stage 2	443	424	-	758	719	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	248	248	836	237	270	481	1364	-	-	898	-	-
Mov Cap-2 Maneuver	248	248	-	237	270	-	-	-	-	-	-	-
Stage 1	761	713	-	425	444	-	-	-	-	-	-	-
Stage 2	422	413	-	730	712	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.5	29.1	0.2	0.3
HCM LOS	B	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1364	-	-	410	237	416	898	-	-
HCM Lane V/C Ratio	0.015	-	-	0.078	0.422	0.027	0.008	-	-
HCM Control Delay (s)	7.7	0	-	14.5	30.8	13.9	9	0	-
HCM Lane LOS	A	A	-	B	D	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	2	0.1	0	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	20	23	12	336	678	70	14	232	68
Future Vol, veh/h	0	0	0	20	23	12	336	678	70	14	232	68
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	68	68	68	94	94	94	82	82	82
Heavy Vehicles, %	2	2	2	2	5	2	2	2	3	2	2	5
Mvmt Flow	0	0	0	29	34	18	357	721	74	17	283	83

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1831	1872	758	366	0	0	795	0	0
Stage 1	1472	1472	-	-	-	-	-	-	-
Stage 2	359	400	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.55	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.045	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	84	71	407	1193	-	-	826	-	-
Stage 1	210	188	-	-	-	-	-	-	-
Stage 2	707	596	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	58	0	407	1193	-	-	826	-	-
Mov Cap-2 Maneuver	58	0	-	-	-	-	-	-	-
Stage 1	144	0	-	-	-	-	-	-	-
Stage 2	707	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	52.8	2.9	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1193	-	-	58	407	826	-	-
HCM Lane V/C Ratio	0.3	-	-	0.507	0.126	0.021	-	-
HCM Control Delay (s)	9.3	-	-	118.8	15.1	9.5	-	-
HCM Lane LOS	A	-	-	F	C	A	-	-
HCM 95th %tile Q(veh)	1.3	-	-	2	0.4	0.1	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4269	4391	4268	4139	4397	4242	4325
Vehs Exited	4267	4386	4271	4151	4404	4237	4314
Starting Vehs	49	49	48	58	49	53	45
Ending Vehs	51	54	45	46	42	58	56
Travel Distance (km)	2151	2147	2135	2075	2175	2121	2163
Travel Time (hr)	51.8	52.9	54.0	50.7	53.3	51.0	52.5
Total Delay (hr)	5.4	6.2	7.8	5.8	6.2	5.2	5.6
Total Stops	949	1061	1048	1016	1061	982	1044
Fuel Used (l)	175.8	176.8	178.3	171.1	180.1	173.8	178.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4301	4154	4347	4282
Vehs Exited	4313	4166	4337	4286
Starting Vehs	47	50	40	38
Ending Vehs	35	38	50	35
Travel Distance (km)	2172	2045	2179	2136
Travel Time (hr)	52.8	49.3	53.0	52.1
Total Delay (hr)	5.7	4.9	5.8	5.9
Total Stops	1058	983	1096	1026
Fuel Used (l)	179.2	167.8	180.7	176.2

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1316	1398	1385	1317	1417	1330	1380
Vehs Exited	1293	1371	1357	1316	1387	1314	1355
Starting Vehs	49	49	48	58	49	53	45
Ending Vehs	72	76	76	59	79	69	70
Travel Distance (km)	667	683	693	658	692	657	680
Travel Time (hr)	16.5	17.8	19.8	16.9	17.6	16.3	17.0
Total Delay (hr)	2.0	2.9	4.8	2.6	2.6	2.1	2.2
Total Stops	313	373	382	341	385	337	329
Fuel Used (l)	54.9	57.5	60.5	54.8	58.0	54.3	56.6

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1343	1347	1332	1355
Vehs Exited	1311	1344	1300	1332
Starting Vehs	47	50	40	38
Ending Vehs	79	53	72	60
Travel Distance (km)	675	673	648	673
Travel Time (hr)	16.9	16.5	16.1	17.1
Total Delay (hr)	2.2	1.9	2.0	2.5
Total Stops	360	347	361	349
Fuel Used (l)	55.8	55.7	54.3	56.2

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1008	964	913	935	983	981	983
Vehs Exited	1041	988	947	944	1006	1000	1005
Starting Vehs	72	76	76	59	79	69	70
Ending Vehs	39	52	42	50	56	50	48
Travel Distance (km)	518	483	454	476	491	502	509
Travel Time (hr)	12.5	11.7	10.7	11.5	12.0	12.0	12.1
Total Delay (hr)	1.4	1.3	0.9	1.1	1.4	1.1	1.1
Total Stops	230	214	220	225	215	207	234
Fuel Used (l)	42.9	39.0	37.1	39.1	40.8	41.1	41.6

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	996	907	999	966
Vehs Exited	1026	924	1024	988
Starting Vehs	79	53	72	60
Ending Vehs	49	36	47	40
Travel Distance (km)	524	442	512	491
Travel Time (hr)	12.9	10.5	12.4	11.8
Total Delay (hr)	1.6	1.0	1.3	1.2
Total Stops	244	206	254	222
Fuel Used (l)	44.0	36.4	42.9	40.5

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	958	1013	974	937	971	953	969
Vehs Exited	952	1025	966	940	979	945	960
Starting Vehs	39	52	42	50	56	50	48
Ending Vehs	45	40	50	47	48	58	57
Travel Distance (km)	472	494	493	467	471	470	478
Travel Time (hr)	11.1	11.7	11.6	11.2	11.1	11.1	11.6
Total Delay (hr)	1.0	1.0	1.0	1.1	0.9	1.0	1.2
Total Stops	184	233	210	219	208	218	244
Fuel Used (l)	38.4	40.3	40.3	38.4	38.7	38.6	39.5

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	996	923	994	967
Vehs Exited	997	912	999	969
Starting Vehs	49	36	47	40
Ending Vehs	48	47	42	39
Travel Distance (km)	495	448	508	480
Travel Time (hr)	11.7	10.8	12.2	11.4
Total Delay (hr)	1.0	1.0	1.3	1.0
Total Stops	226	202	225	213
Fuel Used (l)	40.6	36.1	41.6	39.2

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	987	1016	996	950	1026	978	993
Vehs Exited	981	1002	1001	951	1032	978	994
Starting Vehs	45	40	50	47	48	58	57
Ending Vehs	51	54	45	46	42	58	56
Travel Distance (km)	494	487	496	474	521	491	497
Travel Time (hr)	11.7	11.7	12.0	11.2	12.5	11.6	11.9
Total Delay (hr)	1.0	1.1	1.1	1.0	1.3	1.0	1.1
Total Stops	222	241	236	231	253	220	237
Fuel Used (l)	39.6	40.0	40.3	38.8	42.5	39.9	40.5

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	966	977	1022	990
Vehs Exited	979	986	1014	991
Starting Vehs	48	47	42	39
Ending Vehs	35	38	50	35
Travel Distance (km)	478	482	511	493
Travel Time (hr)	11.2	11.5	12.3	11.8
Total Delay (hr)	1.0	1.1	1.3	1.1
Total Stops	228	228	256	234
Fuel Used (l)	38.7	39.6	41.9	40.2

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.8	0.6	0.5	0.2	4.4	3.2	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.5	0.0	0.0	0.0	2.6	2.8	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	4.2	0.2	0.2	3.4	1.0	1.1	0.0	0.0	0.0	1.0
Total Delay (hr)	0.2	0.1	0.0	0.9	0.0	0.0	0.0	0.3	0.0	1.7
Total Del/Veh (s)	28.4	26.3	3.7	11.7	0.8	0.5	3.4	2.2	1.1	4.8
Stop Delay (hr)	0.2	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	26.4	22.7	3.3	8.8	0.1	0.1	0.9	0.0	0.1	2.8

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.2	0.2	1.0	0.0	0.1	0.2	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.5	0.7	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0
Total Del/Veh (s)	44.5	31.0	18.8	19.2	9.1	4.4	3.9	1.4	0.7	3.4	1.5	1.4
Stop Delay (hr)	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	41.8	27.5	18.0	16.7	4.1	3.4	1.7	0.0	0.0	1.4	0.0	0.1

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.2
Total Delay (hr)	1.5
Total Del/Veh (s)	6.2
Stop Delay (hr)	1.2
Stop Del/Veh (s)	4.7

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.9	0.5	0.7	4.9	6.2	0.7	0.2	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	3.0	2.5	0.0	0.0	0.4

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.4	0.3	0.2
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	6.6	3.6	0.4	0.2	1.3	0.2	1.3
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.6	3.1	0.0	0.0	0.3	0.0	0.8

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.3	2.9	2.7	0.2	0.2	0.0	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.6	2.7	0.6	0.0	0.0	0.0	0.2

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.3	3.1	1.6	0.1	0.3	0.2	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.2	2.6	0.6	0.0	0.0	0.0	0.5

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.2	0.1	0.1	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.6	0.7	1.2	0.0	4.5	2.1	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.5	1.9	0.4

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.8	2.6	2.6	0.2	0.2	0.1	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.7	2.4	0.5	0.0	0.0	0.0	0.5

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	2.0	0.2	4.2	2.6	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.3	2.3	0.5

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Del/Veh (s)	1.6	0.2	0.3	0.1	5.2	3.4	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.1	0.0	0.0	0.0	2.7	2.3	1.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	0.9	0.0	3.7	2.1	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.0	2.1	0.4

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.3	0.3	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.3	4.3	4.3	1.1	0.2	0.0	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	6.1	4.0	1.5	0.2	0.0	0.0	0.2

Total Network Performance

Denied Delay (hr)	0.7
Denied Del/Veh (s)	0.6
Total Delay (hr)	5.2
Total Del/Veh (s)	4.3
Stop Delay (hr)	2.7
Stop Del/Veh (s)	2.3

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	8.5	19.0
Average Queue (m)	0.5	6.4
95th Queue (m)	4.4	15.8
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR
Maximum Queue (m)	16.1	18.4	57.0	12.1	9.8	14.9
Average Queue (m)	5.0	4.8	21.6	0.8	0.5	1.6
95th Queue (m)	12.3	13.6	42.4	16.8	4.5	7.7
Link Distance (m)		134.1		104.9		108.6
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (m)	25.0		75.0		50.0	
Storage Blk Time (%)		0	1			
Queuing Penalty (veh)		0	2			

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (m)	48.5	33.8	42.5	13.4	8.7
Average Queue (m)	13.8	13.2	6.6	1.7	0.6
95th Queue (m)	34.0	28.5	27.0	8.1	4.2
Link Distance (m)	111.2		1000.3	367.9	411.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		30.0			
Storage Blk Time (%)		4	0		
Queuing Penalty (veh)		1	0		

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	4.3	16.7
Average Queue (m)	0.2	5.2
95th Queue (m)	2.6	13.6
Link Distance (m)	1000.3	131.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	21.4	2.5
Average Queue (m)	9.5	0.1
95th Queue (m)	16.6	1.7
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.3	6.2
Average Queue (m)	3.4	0.5
95th Queue (m)	10.4	4.1
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	16.0	9.9
Average Queue (m)	7.9	0.8
95th Queue (m)	13.6	5.2
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	NB
Directions Served	LR
Maximum Queue (m)	14.7
Average Queue (m)	6.1
95th Queue (m)	13.0
Link Distance (m)	172.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	18.8	14.7
Average Queue (m)	6.6	0.8
95th Queue (m)	14.4	6.1
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.2	9.0
Average Queue (m)	0.1	3.8
95th Queue (m)	2.3	10.9
Link Distance (m)	276.3	72.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	1.7	22.0
Average Queue (m)	0.1	11.9
95th Queue (m)	1.7	19.0
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	10.9
Average Queue (m)	0.1	3.0
95th Queue (m)	1.3	9.3
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	14.2	20.4
Average Queue (m)	2.7	3.2
95th Queue (m)	10.0	12.6
Link Distance (m)	97.1	411.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 3

Intersection	
Int Delay, s/veh	30.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕		↰	↱			↕			↕	
Traffic Vol, veh/h	2	2	94	137	2	18	15	136	63	10	386	2
Future Vol, veh/h	2	2	94	137	2	18	15	136	63	10	386	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	80	80	80	82	82	82	67	67	67
Heavy Vehicles, %	2	2	2	10	2	12	2	5	30	2	2	2
Mvmt Flow	4	4	188	171	3	23	18	166	77	15	576	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	862	887	578	945	850	205	579	0	0	243	0	0
Stage 1	608	608	-	241	241	-	-	-	-	-	-	-
Stage 2	254	279	-	704	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.52	6.32	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.018	3.408	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	275	283	516	234	298	811	995	-	-	1323	-	-
Stage 1	483	486	-	745	706	-	-	-	-	-	-	-
Stage 2	750	680	-	415	485	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	258	272	516	~ 143	287	811	995	-	-	1323	-	-
Mov Cap-2 Maneuver	258	272	-	~ 143	287	-	-	-	-	-	-	-
Stage 1	473	478	-	729	691	-	-	-	-	-	-	-
Stage 2	711	666	-	257	477	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.9	175.2	0.6	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	995	-	-	497	143	686	1323	-	-
HCM Lane V/C Ratio	0.018	-	-	0.394	1.198	0.036	0.011	-	-
HCM Control Delay (s)	8.7	0	-	16.9	199.3	10.4	7.8	0	-
HCM Lane LOS	A	A	-	C	F	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.9	10	0.1	0	-	-

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

Intersection	
Int Delay, s/veh	1.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	9	26	104	384	2
Future Vol, veh/h	3	9	26	104	384	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	33	33	60	60	77	77
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	9	27	43	173	499	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	760	501	502	0	-	0
Stage 1	501	-	-	-	-	-
Stage 2	259	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	374	570	1062	-	-	-
Stage 1	609	-	-	-	-	-
Stage 2	784	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	357	570	1062	-	-	-
Mov Cap-2 Maneuver	357	-	-	-	-	-
Stage 1	582	-	-	-	-	-
Stage 2	784	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1062	-	496	-	-
HCM Lane V/C Ratio	0.041	-	0.073	-	-
HCM Control Delay (s)	8.5	0	12.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	29	13	6	276	206	30	6	542	144
Future Vol, veh/h	0	0	0	29	13	6	276	206	30	6	542	144
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	75	75	75	90	90	90	89	89	89
Heavy Vehicles, %	2	2	2	2	2	25	4	4	2	25	2	3
Mvmt Flow	0	0	0	39	17	8	307	229	33	7	609	162

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1564	1645	246	771	0	0	262	0	0
Stage 1	860	860	-	-	-	-	-	-	-
Stage 2	704	785	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.45	4.14	-	-	4.35	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.525	2.236	-	-	2.425	-	-
Pot Cap-1 Maneuver	123	99	740	835	-	-	1180	-	-
Stage 1	414	373	-	-	-	-	-	-	-
Stage 2	490	404	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	77	0	740	835	-	-	1180	-	-
Mov Cap-2 Maneuver	77	0	-	-	-	-	-	-	-
Stage 1	260	0	-	-	-	-	-	-	-
Stage 2	490	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	59.4	6.4	0.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	835	-	-	77	740	1180	-	-
HCM Lane V/C Ratio	0.367	-	-	0.502	0.034	0.006	-	-
HCM Control Delay (s)	11.8	-	-	91.8	10	8.1	-	-
HCM Lane LOS	B	-	-	F	B	A	-	-
HCM 95th %tile Q(veh)	1.7	-	-	2.1	0.1	0	-	-

Intersection	
Int Delay, s/veh	7.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	201	62	143	470	104
Future Vol, veh/h	40	201	62	143	470	104
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	45	228	72	166	603	133

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	980	670	736	0	-	0
Stage 1	670	-	-	-	-	-
Stage 2	310	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	276	455	870	-	-	-
Stage 1	507	-	-	-	-	-
Stage 2	741	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	253	455	870	-	-	-
Mov Cap-2 Maneuver	253	-	-	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.1	2.9	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	870	-	402	-	-
HCM Lane V/C Ratio	0.083	-	0.681	-	-
HCM Control Delay (s)	9.5	-	31.1	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	4.9	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	76	8	89	30	6	272
Future Vol, veh/h	76	8	89	30	6	272
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	70	70	71	71
Heavy Vehicles, %	2	14	7	4	2	3
Mvmt Flow	86	9	127	43	8	383

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	548	149	0	0	170	0
Stage 1	149	-	-	-	-	-
Stage 2	399	-	-	-	-	-
Critical Hdwy	6.42	6.34	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.426	-	-	2.218	-
Pot Cap-1 Maneuver	497	867	-	-	1407	-
Stage 1	879	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	494	867	-	-	1407	-
Mov Cap-2 Maneuver	494	-	-	-	-	-
Stage 1	873	-	-	-	-	-
Stage 2	678	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	515	1407	-
HCM Lane V/C Ratio	-	-	0.185	0.006	-
HCM Control Delay (s)	-	-	13.6	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.7	0	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	35	15	19	6	23	68
Future Vol, veh/h	35	15	19	6	23	68
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	-2	-
Peak Hour Factor	87	87	64	64	69	69
Heavy Vehicles, %	17	20	12	2	5	5
Mvmt Flow	40	17	30	9	33	99

Major/Minor	Minor2		Major2	
Conflicting Flow All	83	83	-	0
Stage 1	83	83	-	-
Stage 2	0	0	-	-
Critical Hdwy	6.52	6.52	-	-
Critical Hdwy Stg 1	5.52	5.52	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.608	4.018	-	-
Pot Cap-1 Maneuver	895	807	-	-
Stage 1	916	826	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	895	0	-	-
Mov Cap-2 Maneuver	895	0	-	-
Stage 1	916	0	-	-
Stage 2	-	0	-	-

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

Minor Lane/Major Mvmt	NBLn1	SBT	SBR
Capacity (veh/h)	895	-	-
HCM Lane V/C Ratio	0.044	-	-
HCM Control Delay (s)	9.2	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-

Intersection	
Int Delay, s/veh	2.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	13	8	12	4	10
Future Vol, veh/h	23	13	8	12	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-4	-
Peak Hour Factor	75	75	64	64	75	75
Heavy Vehicles, %	2	2	2	2	2	11
Mvmt Flow	31	17	13	19	5	13

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	48	0	85	40
Stage 1	-	-	-	-	40	-
Stage 2	-	-	-	-	45	-
Critical Hdwy	-	-	4.12	-	5.62	5.91
Critical Hdwy Stg 1	-	-	-	-	4.62	-
Critical Hdwy Stg 2	-	-	-	-	4.62	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.399
Pot Cap-1 Maneuver	-	-	1559	-	934	1011
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	987	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1559	-	927	1011
Mov Cap-2 Maneuver	-	-	-	-	927	-
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	987	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	985	-	-	1559	-
HCM Lane V/C Ratio	0.019	-	-	0.008	-
HCM Control Delay (s)	8.7	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	74	19	25	125	13
Future Vol, veh/h	4	74	19	25	125	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-4	3	-	-6	-
Peak Hour Factor	68	68	68	68	89	89
Heavy Vehicles, %	33	2	6	2	2	17
Mvmt Flow	6	109	28	37	140	15

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	65	0	-	0	168	47
Stage 1	-	-	-	-	47	-
Stage 2	-	-	-	-	121	-
Critical Hdwy	4.43	-	-	-	5.22	5.77
Critical Hdwy Stg 1	-	-	-	-	4.22	-
Critical Hdwy Stg 2	-	-	-	-	4.22	-
Follow-up Hdwy	2.497	-	-	-	3.518	3.453
Pot Cap-1 Maneuver	1361	-	-	-	870	989
Stage 1	-	-	-	-	991	-
Stage 2	-	-	-	-	942	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1361	-	-	-	866	989
Mov Cap-2 Maneuver	-	-	-	-	866	-
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	942	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	10
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1361	-	-	-	876
HCM Lane V/C Ratio	0.004	-	-	-	0.177
HCM Control Delay (s)	7.7	0	-	-	10
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	1.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	32	170	2	13	34	4
Future Vol, veh/h	32	170	2	13	34	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	-10	0	-
Peak Hour Factor	86	86	41	41	62	62
Heavy Vehicles, %	2	2	2	2	3	2
Mvmt Flow	37	198	5	32	55	6

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	235	0	178	136
Stage 1	-	-	-	-	136	-
Stage 2	-	-	-	-	42	-
Critical Hdwy	-	-	4.12	-	6.43	6.22
Critical Hdwy Stg 1	-	-	-	-	5.43	-
Critical Hdwy Stg 2	-	-	-	-	5.43	-
Follow-up Hdwy	-	-	2.218	-	3.527	3.318
Pot Cap-1 Maneuver	-	-	1332	-	809	913
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1332	-	806	913
Mov Cap-2 Maneuver	-	-	-	-	806	-
Stage 1	-	-	-	-	884	-
Stage 2	-	-	-	-	978	-

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

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	816	-	-	1332	-
HCM Lane V/C Ratio	0.075	-	-	0.004	-
HCM Control Delay (s)	9.8	-	-	7.7	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	12	6	39	203	5
Future Vol, veh/h	3	12	6	39	203	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	55	55	77	77	92	92
Heavy Vehicles, %	2	2	2	6	3	2
Mvmt Flow	5	22	8	51	221	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	291	224	226	0	-	0
Stage 1	224	-	-	-	-	-
Stage 2	67	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	700	815	1342	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	956	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	696	815	1342	-	-	-
Mov Cap-2 Maneuver	696	-	-	-	-	-
Stage 1	808	-	-	-	-	-
Stage 2	956	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1342	-	788	-	-
HCM Lane V/C Ratio	0.006	-	0.035	-	-
HCM Control Delay (s)	7.7	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	39	12	22	141	4
Future Vol, veh/h	6	39	12	22	141	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	70	70	66	66	86	86
Heavy Vehicles, %	33	3	27	2	2	2
Mvmt Flow	9	56	18	33	164	5

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	236	167	169	0	-	0
Stage 1	167	-	-	-	-	-
Stage 2	69	-	-	-	-	-
Critical Hdwy	6.73	6.23	4.37	-	-	-
Critical Hdwy Stg 1	5.73	-	-	-	-	-
Critical Hdwy Stg 2	5.73	-	-	-	-	-
Follow-up Hdwy	3.797	3.327	2.443	-	-	-
Pot Cap-1 Maneuver	689	875	1270	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	881	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	679	875	1270	-	-	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	782	-	-	-	-	-
Stage 2	881	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.6	2.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1270	-	843	-	-
HCM Lane V/C Ratio	0.014	-	0.076	-	-
HCM Control Delay (s)	7.9	0	9.6	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	61	11	51	184	7
Future Vol, veh/h	3	61	11	51	184	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	0	0	-
Peak Hour Factor	79	79	71	71	71	71
Heavy Vehicles, %	2	2	2	6	2	2
Mvmt Flow	4	77	15	72	259	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	366	264	269	0	-	0
Stage 1	264	-	-	-	-	-
Stage 2	102	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	687	798	1295	-	-	-
Stage 1	827	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	679	798	1295	-	-	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	817	-	-	-	-	-
Stage 2	943	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.1	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1295	-	791	-	-
HCM Lane V/C Ratio	0.012	-	0.102	-	-
HCM Control Delay (s)	7.8	0	10.1	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

Intersection	
Int Delay, s/veh	2.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	33	10	2	12	12	4
Future Vol, veh/h	33	10	2	12	12	4
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	0	-
Peak Hour Factor	71	71	75	75	56	56
Heavy Vehicles, %	3	14	2	36	2	2
Mvmt Flow	46	14	3	16	21	7

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	60	0	75	53
Stage 1	-	-	-	-	53	-
Stage 2	-	-	-	-	22	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1544	-	928	1014
Stage 1	-	-	-	-	970	-
Stage 2	-	-	-	-	1001	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1544	-	926	1014
Mov Cap-2 Maneuver	-	-	-	-	926	-
Stage 1	-	-	-	-	968	-
Stage 2	-	-	-	-	1001	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	947	-	-	1544	-
HCM Lane V/C Ratio	0.03	-	-	0.002	-
HCM Control Delay (s)	8.9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	231	164	3	9	24
Future Vol, veh/h	8	231	164	3	9	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	85	85	86	86	56	56
Heavy Vehicles, %	17	2	2	50	13	10
Mvmt Flow	9	272	191	3	16	43

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	194	0	-	0	483	193
Stage 1	-	-	-	-	193	-
Stage 2	-	-	-	-	290	-
Critical Hdwy	4.27	-	-	-	6.53	6.3
Critical Hdwy Stg 1	-	-	-	-	5.53	-
Critical Hdwy Stg 2	-	-	-	-	5.53	-
Follow-up Hdwy	2.353	-	-	-	3.617	3.39
Pot Cap-1 Maneuver	1294	-	-	-	523	828
Stage 1	-	-	-	-	814	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1294	-	-	-	519	828
Mov Cap-2 Maneuver	-	-	-	-	519	-
Stage 1	-	-	-	-	807	-
Stage 2	-	-	-	-	735	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	10.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1294	-	-	-	712
HCM Lane V/C Ratio	0.007	-	-	-	0.083
HCM Control Delay (s)	7.8	0	-	-	10.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	5492	5493	5477	5421	5364	5633	5604
Vehs Exited	5494	5503	5492	5428	5371	5618	5601
Starting Vehs	62	64	74	61	66	55	71
Ending Vehs	60	54	59	54	59	70	74
Travel Distance (km)	2740	2701	2703	2690	2663	2791	2765
Travel Time (hr)	67.8	65.3	65.9	66.2	64.9	68.4	67.9
Total Delay (hr)	8.1	6.5	7.0	7.5	6.8	7.8	7.7
Total Stops	874	866	903	914	875	949	916
Fuel Used (l)	224.7	219.6	220.7	219.7	216.3	228.2	226.5

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5536	5304	5368	5470
Vehs Exited	5550	5310	5386	5475
Starting Vehs	61	57	68	51
Ending Vehs	47	51	50	48
Travel Distance (km)	2743	2620	2640	2706
Travel Time (hr)	68.0	64.0	64.7	66.3
Total Delay (hr)	8.2	6.9	7.1	7.4
Total Stops	933	869	907	902
Fuel Used (l)	225.7	214.3	217.4	221.3

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1628	1569	1575	1589	1550	1635	1598
Vehs Exited	1589	1553	1569	1573	1546	1607	1601
Starting Vehs	62	64	74	61	66	55	71
Ending Vehs	101	80	80	77	70	83	68
Travel Distance (km)	803	758	773	796	747	793	778
Travel Time (hr)	20.6	18.4	19.1	20.5	18.6	19.9	19.7
Total Delay (hr)	3.1	1.9	2.2	3.0	2.3	2.7	2.7
Total Stops	287	272	303	324	291	314	288
Fuel Used (l)	67.0	61.6	64.0	66.1	61.5	65.6	65.1

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1606	1579	1534	1591
Vehs Exited	1595	1584	1533	1574
Starting Vehs	61	57	68	51
Ending Vehs	72	52	69	59
Travel Distance (km)	798	783	735	777
Travel Time (hr)	20.8	19.8	18.1	19.5
Total Delay (hr)	3.3	2.8	2.0	2.6
Total Stops	320	331	273	302
Fuel Used (l)	66.6	65.7	61.3	64.4

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1324	1285	1256	1273	1281	1391	1305
Vehs Exited	1357	1287	1276	1272	1281	1404	1305
Starting Vehs	101	80	80	77	70	83	68
Ending Vehs	68	78	60	78	70	70	68
Travel Distance (km)	657	617	624	636	659	705	642
Travel Time (hr)	16.1	14.9	15.0	15.4	16.2	17.2	15.5
Total Delay (hr)	1.7	1.5	1.5	1.6	1.8	1.8	1.5
Total Stops	203	203	168	185	198	237	199
Fuel Used (l)	53.5	50.5	50.4	51.0	53.3	57.2	52.3

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1330	1213	1251	1292
Vehs Exited	1354	1205	1250	1298
Starting Vehs	72	52	69	59
Ending Vehs	48	60	70	58
Travel Distance (km)	659	584	621	640
Travel Time (hr)	16.2	14.1	15.2	15.6
Total Delay (hr)	1.8	1.3	1.6	1.6
Total Stops	216	175	201	197
Fuel Used (l)	54.2	47.6	50.7	52.1

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1266	1333	1344	1258	1262	1313	1315
Vehs Exited	1271	1369	1344	1272	1279	1316	1318
Starting Vehs	68	78	60	78	70	70	68
Ending Vehs	63	42	60	64	53	67	65
Travel Distance (km)	633	684	671	613	626	664	654
Travel Time (hr)	15.7	16.6	16.2	14.9	15.1	16.0	16.0
Total Delay (hr)	1.8	1.7	1.6	1.5	1.4	1.7	1.7
Total Stops	190	192	213	217	207	201	228
Fuel Used (l)	52.3	55.3	54.3	50.5	50.3	54.2	53.4

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1334	1243	1265	1292
Vehs Exited	1332	1241	1263	1305
Starting Vehs	48	60	70	58
Ending Vehs	50	62	72	48
Travel Distance (km)	661	630	613	645
Travel Time (hr)	15.9	15.1	14.9	15.6
Total Delay (hr)	1.5	1.4	1.5	1.6
Total Stops	203	167	193	199
Fuel Used (l)	53.6	50.3	50.9	52.5

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1274	1306	1302	1301	1271	1294	1386
Vehs Exited	1277	1294	1303	1311	1265	1291	1377
Starting Vehs	63	42	60	64	53	67	65
Ending Vehs	60	54	59	54	59	70	74
Travel Distance (km)	646	642	635	645	631	629	691
Travel Time (hr)	15.4	15.4	15.6	15.4	15.1	15.2	16.7
Total Delay (hr)	1.4	1.5	1.7	1.4	1.3	1.6	1.8
Total Stops	194	199	219	188	179	197	201
Fuel Used (l)	51.9	52.2	52.0	52.1	51.3	51.3	55.6

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1266	1269	1318	1295
Vehs Exited	1269	1280	1340	1301
Starting Vehs	50	62	72	48
Ending Vehs	47	51	50	48
Travel Distance (km)	625	623	670	644
Travel Time (hr)	15.2	15.0	16.5	15.6
Total Delay (hr)	1.6	1.4	2.0	1.6
Total Stops	194	196	240	197
Fuel Used (l)	51.4	50.7	54.5	52.3

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	1.8	0.7	0.9	0.7	6.7	3.8	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.5	0.0	0.0	0.0	5.0	3.4	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.9
Denied Del/Veh (s)	4.0	0.2	0.2	3.4	2.2	2.3	0.0	0.0	0.0	2.0
Total Delay (hr)	0.2	0.2	0.1	0.5	0.4	0.0	0.0	0.1	0.0	1.5
Total Del/Veh (s)	36.9	28.3	14.7	5.3	1.8	1.0	9.5	1.0	0.5	3.4
Stop Delay (hr)	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	34.5	24.4	14.1	1.9	0.0	0.0	7.6	0.0	0.0	1.5

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.1	0.2	0.0	0.0	0.7	0.6	0.6	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.9	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.0
Total Del/Veh (s)	20.3	31.2	7.4	32.4	19.6	6.1	4.4	3.4	2.1	5.5	0.9	0.7
Stop Delay (hr)	0.0	0.0	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	17.9	27.0	6.7	30.0	13.1	5.0	0.5	0.0	0.0	3.9	0.1	0.3

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.4
Total Delay (hr)	1.8
Total Del/Veh (s)	6.0
Stop Delay (hr)	1.0
Stop Del/Veh (s)	3.4

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.6	0.5	0.9	5.4	6.1	1.3	0.3	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	3.3	2.4	0.0	0.0	0.5

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.4	0.4	0.1	0.2	0.4
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	7.8	5.9	1.3	0.6	3.4	0.2	1.5
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	5.9	5.4	0.0	0.0	2.3	0.0	0.4

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	2.2	2.5	0.5	0.1	0.1	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.9	2.0	0.1	0.0	0.0	0.0	0.1

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.3	0.4	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	7.1	2.1	1.5	0.8	0.1	0.0	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.2	2.0	0.2	0.0	0.0	0.0	0.1

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Total Del/Veh (s)	0.8	0.3	2.8	0.2	5.6	3.5	3.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.5	0.0	2.7	2.3	1.5

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.4	0.0	2.2	2.1	0.3	0.1	0.0	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.3	0.0	2.1	0.1	0.0	0.0	0.0	0.3

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.3	0.2	2.0	0.1	4.4	2.3	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.4	0.0	2.5	2.0	0.3

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	2.9	0.1	1.3	0.6	4.9	2.3	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.3	0.0	0.0	0.0	2.8	2.0	0.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.0	0.8	0.0	4.4	2.4	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.5	2.1	0.9

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.2	0.0
Total Delay (hr)	0.0	0.0	0.1	0.4	0.0	0.0	0.5
Total Del/Veh (s)	10.2	3.5	4.6	3.0	0.1	0.0	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	8.3	3.1	0.4	0.0	0.0	0.0	0.1

Total Network Performance

Denied Delay (hr)	1.2
Denied Del/Veh (s)	0.8
Total Delay (hr)	6.1
Total Del/Veh (s)	4.0
Stop Delay (hr)	2.2
Stop Del/Veh (s)	1.4

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	12.0	15.2
Average Queue (m)	0.9	4.8
95th Queue (m)	6.1	12.8
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR
Maximum Queue (m)	16.4	26.4	35.4	2.5	11.1	6.0
Average Queue (m)	4.5	7.7	14.2	0.1	2.7	0.3
95th Queue (m)	12.5	17.9	28.5	1.6	9.1	2.9
Link Distance (m)		134.1		104.9		108.6
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	25.0		75.0		50.0	
Storage Blk Time (%)	0	1	0			
Queuing Penalty (veh)	0	0	0			

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	WB	WB	NB	SB
Directions Served	LTR	L	TR	LTR	LTR
Maximum Queue (m)	23.8	35.3	30.3	20.0	11.5
Average Queue (m)	8.9	13.1	3.6	3.2	0.8
95th Queue (m)	19.0	28.4	18.0	13.5	5.6
Link Distance (m)	111.2		1000.3	367.9	411.5
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)		30.0			
Storage Blk Time (%)		5	0		
Queuing Penalty (veh)		1	0		

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	6.8	14.4	0.8
Average Queue (m)	0.3	7.0	0.0
95th Queue (m)	3.1	13.1	0.8
Link Distance (m)	1000.3	131.0	70.9
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	16.8	6.3
Average Queue (m)	7.0	0.3
95th Queue (m)	14.4	3.4
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	12.2	6.6
Average Queue (m)	2.7	0.2
95th Queue (m)	9.8	3.4
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.2	11.7
Average Queue (m)	3.9	0.9
95th Queue (m)	10.8	5.9
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	5.4	21.4
Average Queue (m)	0.2	10.8
95th Queue (m)	2.3	17.3
Link Distance (m)	91.2	172.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	17.4	7.0
Average Queue (m)	5.9	0.3
95th Queue (m)	13.6	3.3
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.6	9.0
Average Queue (m)	0.1	2.5
95th Queue (m)	1.6	9.0
Link Distance (m)	276.3	72.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (m)	5.6	0.7	16.2
Average Queue (m)	0.3	0.0	7.2
95th Queue (m)	3.0	0.7	14.4
Link Distance (m)	66.2	118.1	81.7
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	9.6
Average Queue (m)	0.1	5.7
95th Queue (m)	1.3	11.1
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	11.2	23.5
Average Queue (m)	1.7	4.1
95th Queue (m)	7.7	15.2
Link Distance (m)	97.1	411.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔		↰	↱			↔			↔	
Traffic Vol, veh/h	5	2	58	93	2	8	49	550	125	6	141	3
Future Vol, veh/h	5	2	58	93	2	8	49	550	125	6	141	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	89	89	89	89	89	89	79	79	79
Heavy Vehicles, %	2	2	2	8	2	2	2	2	7	2	2	2
Mvmt Flow	10	4	116	104	2	9	55	618	140	8	178	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1000	1064	180	1054	996	688	182	0	0	758	0	0
Stage 1	196	196	-	798	798	-	-	-	-	-	-	-
Stage 2	804	868	-	256	198	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	222	223	863	199	244	446	1393	-	-	853	-	-
Stage 1	806	739	-	371	398	-	-	-	-	-	-	-
Stage 2	377	370	-	735	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	205	863	159	225	446	1393	-	-	853	-	-
Mov Cap-2 Maneuver	203	205	-	159	225	-	-	-	-	-	-	-
Stage 1	750	732	-	345	370	-	-	-	-	-	-	-
Stage 2	341	344	-	626	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	58.3	0.5	0.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1393	-	-	640	159	373	853	-	-
HCM Lane V/C Ratio	0.04	-	-	0.203	0.657	0.03	0.009	-	-
HCM Control Delay (s)	7.7	0	-	12.1	63	15	9.3	0	-
HCM Lane LOS	A	A	-	B	F	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.8	3.7	0.1	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	6	81	459	141	2
Future Vol, veh/h	2	6	81	459	141	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	25	25	85	85	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	24	95	540	164	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	895	165	166	0	-	0
Stage 1	165	-	-	-	-	-
Stage 2	730	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	311	879	1412	-	-	-
Stage 1	864	-	-	-	-	-
Stage 2	477	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	281	879	1412	-	-	-
Mov Cap-2 Maneuver	281	-	-	-	-	-
Stage 1	781	-	-	-	-	-
Stage 2	477	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.6	1.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1412	-	574	-	-
HCM Lane V/C Ratio	0.067	-	0.056	-	-
HCM Control Delay (s)	7.7	0	11.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	21	24	12	349	749	73	15	260	75
Future Vol, veh/h	0	0	0	21	24	12	349	749	73	15	260	75
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	250	-	-	750	-	-	500	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	68	68	68	94	94	94	82	82	82
Heavy Vehicles, %	2	2	2	2	5	2	2	2	3	2	2	5
Mvmt Flow	0	0	0	31	35	18	371	797	78	18	317	91

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	1977	2022	836	408	0	0	875	0	0
Stage 1	1578	1578	-	-	-	-	-	-	-
Stage 2	399	444	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.55	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.55	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.55	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.045	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	68	57	367	1151	-	-	771	-	-
Stage 1	187	167	-	-	-	-	-	-	-
Stage 2	678	570	-	-	-	-	-	-	-
Platoon blocked, %					-	-		-	-
Mov Cap-1 Maneuver	45	0	367	1151	-	-	771	-	-
Mov Cap-2 Maneuver	45	0	-	-	-	-	-	-	-
Stage 1	124	0	-	-	-	-	-	-	-
Stage 2	678	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	79.2	2.9	0.4
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1151	-	-	45	367	771	-	-
HCM Lane V/C Ratio	0.323	-	-	0.686	0.144	0.024	-	-
HCM Control Delay (s)	9.6	-	-	186.7	16.5	9.8	-	-
HCM Lane LOS	A	-	-	F	C	A	-	-
HCM 95th %tile Q(veh)	1.4	-	-	2.6	0.5	0.1	-	-

Intersection	
Int Delay, s/veh	71.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	141	124	220	554	237	67
Future Vol, veh/h	141	124	220	554	237	67
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	153	135	247	622	354	100

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1520	404	454	0	-	0
Stage 1	404	-	-	-	-	-
Stage 2	1116	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 131	647	1107	-	-	-
Stage 1	674	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 102	647	1107	-	-	-
Mov Cap-2 Maneuver	~ 102	-	-	-	-	-
Stage 1	524	-	-	-	-	-
Stage 2	313	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 393.1	2.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1107	-	168	-	-
HCM Lane V/C Ratio	0.223	-	1.715	-	-
HCM Control Delay (s)	9.2	-	$ 393.1	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.9	-	20.3	-	-

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

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	44	2	401	95	2	88
Future Vol, veh/h	44	2	401	95	2	88
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	81	81	87	87	88	88
Heavy Vehicles, %	3	2	2	3	2	2
Mvmt Flow	54	2	461	109	2	100

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	620	516	0	0	570	0
Stage 1	516	-	-	-	-	-
Stage 2	104	-	-	-	-	-
Critical Hdwy	6.43	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	450	559	-	-	1002	-
Stage 1	597	-	-	-	-	-
Stage 2	918	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	449	559	-	-	1002	-
Mov Cap-2 Maneuver	449	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	918	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	14.1	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	453	1002	-
HCM Lane V/C Ratio	-	-	0.125	0.002	-
HCM Control Delay (s)	-	-	14.1	8.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	76	24	20	32	12	74
Future Vol, veh/h	76	24	20	32	12	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Stop	Stop	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	2	-	-	0	0	-
Grade, %	0	-	-	0	-2	-
Peak Hour Factor	89	89	98	98	82	82
Heavy Vehicles, %	2	2	2	2	2	7
Mvmt Flow	85	27	20	33	15	90

Major/Minor	Minor2		Major2	
Conflicting Flow All	60	60	-	0
Stage 1	60	60	-	-
Stage 2	0	0	-	-
Critical Hdwy	6.42	6.52	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	3.518	4.018	-	-
Pot Cap-1 Maneuver	947	831	-	-
Stage 1	963	845	-	-
Stage 2	-	-	-	-
Platoon blocked, %			-	-
Mov Cap-1 Maneuver	947	0	-	-
Mov Cap-2 Maneuver	947	0	-	-
Stage 1	963	0	-	-
Stage 2	-	0	-	-

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

Minor Lane/Major Mvmt	NBLn1	SBT	SBR
Capacity (veh/h)	947	-	-
HCM Lane V/C Ratio	0.056	-	-
HCM Control Delay (s)	9	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-

Intersection	
Int Delay, s/veh	4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	23	6	10	32	26	17
Future Vol, veh/h	23	6	10	32	26	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	-4	-
Peak Hour Factor	68	68	86	86	77	77
Heavy Vehicles, %	2	2	2	3	2	2
Mvmt Flow	34	9	12	37	34	22

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	43	0	100	39
Stage 1	-	-	-	-	39	-
Stage 2	-	-	-	-	61	-
Critical Hdwy	-	-	4.12	-	5.62	5.82
Critical Hdwy Stg 1	-	-	-	-	4.62	-
Critical Hdwy Stg 2	-	-	-	-	4.62	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1566	-	919	1037
Stage 1	-	-	-	-	992	-
Stage 2	-	-	-	-	975	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1566	-	912	1037
Mov Cap-2 Maneuver	-	-	-	-	912	-
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	975	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	1566	-
HCM Lane V/C Ratio	0.058	-	-	0.007	-
HCM Control Delay (s)	9	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	48	72	156	40	9
Future Vol, veh/h	4	48	72	156	40	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	-4	3	-	-6	-
Peak Hour Factor	65	65	89	89	68	68
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	74	81	175	59	13

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	256	0	-	0	255	169
Stage 1	-	-	-	-	169	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.12	-	-	-	5.22	5.62
Critical Hdwy Stg 1	-	-	-	-	4.22	-
Critical Hdwy Stg 2	-	-	-	-	4.22	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1309	-	-	-	799	900
Stage 1	-	-	-	-	911	-
Stage 2	-	-	-	-	965	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1309	-	-	-	795	900
Mov Cap-2 Maneuver	-	-	-	-	795	-
Stage 1	-	-	-	-	906	-
Stage 2	-	-	-	-	965	-

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1309	-	-	-	812
HCM Lane V/C Ratio	0.005	-	-	-	0.089
HCM Control Delay (s)	7.8	0	-	-	9.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	5.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	25	64	5	50	179	3
Future Vol, veh/h	25	64	5	50	179	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	10	-	-	-10	0	-
Peak Hour Factor	72	72	83	83	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	35	89	6	60	195	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	124	0	152	80
Stage 1	-	-	-	-	80	-
Stage 2	-	-	-	-	72	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1463	-	840	980
Stage 1	-	-	-	-	943	-
Stage 2	-	-	-	-	951	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1463	-	837	980
Mov Cap-2 Maneuver	-	-	-	-	837	-
Stage 1	-	-	-	-	939	-
Stage 2	-	-	-	-	951	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.7	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	839	-	-	1463	-
HCM Lane V/C Ratio	0.236	-	-	0.004	-
HCM Control Delay (s)	10.6	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	8	11	205	63	7
Future Vol, veh/h	4	8	11	205	63	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	80	80	83	83
Heavy Vehicles, %	2	14	2	2	2	2
Mvmt Flow	6	12	14	256	76	8

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	364	80	84	0	-	0
Stage 1	80	-	-	-	-	-
Stage 2	284	-	-	-	-	-
Critical Hdwy	6.42	6.34	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.426	2.218	-	-	-
Pot Cap-1 Maneuver	635	948	1513	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	628	948	1513	-	-	-
Mov Cap-2 Maneuver	628	-	-	-	-	-
Stage 1	933	-	-	-	-	-
Stage 2	764	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.4	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1513	-	810	-	-
HCM Lane V/C Ratio	0.009	-	0.022	-	-
HCM Control Delay (s)	7.4	0	9.5	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	16	13	37	156	46	3
Future Vol, veh/h	16	13	37	156	46	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	65	65	91	91	71	71
Heavy Vehicles, %	7	2	2	2	2	2
Mvmt Flow	25	20	41	171	65	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	320	67	69	0	-	0
Stage 1	67	-	-	-	-	-
Stage 2	253	-	-	-	-	-
Critical Hdwy	6.47	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	663	997	1532	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	778	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	643	997	1532	-	-	-
Mov Cap-2 Maneuver	643	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	778	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1532	-	765	-	-
HCM Lane V/C Ratio	0.027	-	0.058	-	-
HCM Control Delay (s)	7.4	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	12	45	342	61	3
Future Vol, veh/h	5	12	45	342	61	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-4	-	-	0	0	-
Peak Hour Factor	58	58	86	86	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	21	52	398	69	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	573	71	72	0	-	0
Stage 1	71	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Critical Hdwy	5.62	5.82	4.12	-	-	-
Critical Hdwy Stg 1	4.62	-	-	-	-	-
Critical Hdwy Stg 2	4.62	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	546	999	1528	-	-	-
Stage 1	967	-	-	-	-	-
Stage 2	680	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	522	999	1528	-	-	-
Mov Cap-2 Maneuver	522	-	-	-	-	-
Stage 1	924	-	-	-	-	-
Stage 2	680	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	0.9	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1528	-	787	-	-
HCM Lane V/C Ratio	0.034	-	0.037	-	-
HCM Control Delay (s)	7.4	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	28	21	2	30	10	2
Future Vol, veh/h	28	21	2	30	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-2	-	-	-2	0	-
Peak Hour Factor	56	56	73	73	43	43
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	38	3	41	23	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	88	0	116	69
Stage 1	-	-	-	-	69	-
Stage 2	-	-	-	-	47	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1508	-	880	994
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	975	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1508	-	878	994
Mov Cap-2 Maneuver	-	-	-	-	878	-
Stage 1	-	-	-	-	952	-
Stage 2	-	-	-	-	975	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	895	-	-	1508	-
HCM Lane V/C Ratio	0.031	-	-	0.002	-
HCM Control Delay (s)	9.2	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection	
Int Delay, s/veh	0.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	15	253	286	5	7	16
Future Vol, veh/h	15	253	286	5	7	16
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	79	79	91	91	60	60
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	19	320	314	5	12	27

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	319	0	-	0	675	317
Stage 1	-	-	-	-	317	-
Stage 2	-	-	-	-	358	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1241	-	-	-	419	724
Stage 1	-	-	-	-	738	-
Stage 2	-	-	-	-	707	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1241	-	-	-	411	724
Mov Cap-2 Maneuver	-	-	-	-	411	-
Stage 1	-	-	-	-	724	-
Stage 2	-	-	-	-	707	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	11.5
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1241	-	-	-	588
HCM Lane V/C Ratio	0.015	-	-	-	0.065
HCM Control Delay (s)	7.9	0	-	-	11.5
HCM Lane LOS	A	A	-	-	B
HCM 95th %tile Q(veh)	0	-	-	-	0.2

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	4269	4391	4268	4139	4397	4242	4325
Vehs Exited	4267	4386	4271	4151	4404	4237	4314
Starting Vehs	49	49	48	58	49	53	45
Ending Vehs	51	54	45	46	42	58	56
Travel Distance (km)	2151	2147	2135	2075	2175	2121	2163
Travel Time (hr)	51.8	52.9	54.0	50.7	53.3	50.9	52.5
Total Delay (hr)	5.4	6.2	7.8	5.8	6.2	5.1	5.6
Total Stops	949	1062	1049	1016	1061	983	1044
Fuel Used (l)	175.8	176.8	178.3	171.1	180.1	173.7	178.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	4301	4154	4347	4282
Vehs Exited	4313	4166	4337	4286
Starting Vehs	47	50	40	38
Ending Vehs	35	38	50	35
Travel Distance (km)	2172	2045	2179	2136
Travel Time (hr)	52.8	49.3	53.0	52.1
Total Delay (hr)	5.7	4.9	5.8	5.9
Total Stops	1058	983	1096	1027
Fuel Used (l)	179.2	167.9	180.7	176.2

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1316	1398	1385	1317	1417	1330	1380
Vehs Exited	1293	1372	1357	1316	1387	1316	1355
Starting Vehs	49	49	48	58	49	53	45
Ending Vehs	72	75	76	59	79	67	70
Travel Distance (km)	667	683	693	658	692	658	680
Travel Time (hr)	16.5	17.7	19.8	16.9	17.6	16.2	17.0
Total Delay (hr)	2.0	2.9	4.8	2.6	2.6	2.0	2.2
Total Stops	313	374	382	341	385	338	329
Fuel Used (l)	54.9	57.5	60.5	54.8	58.0	54.2	56.6

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1343	1347	1332	1355
Vehs Exited	1311	1344	1300	1332
Starting Vehs	47	50	40	38
Ending Vehs	79	53	72	60
Travel Distance (km)	675	673	648	673
Travel Time (hr)	16.9	16.5	16.1	17.1
Total Delay (hr)	2.2	1.9	2.0	2.5
Total Stops	360	347	361	349
Fuel Used (l)	55.8	55.7	54.3	56.2

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1008	964	913	935	983	981	983
Vehs Exited	1041	987	947	944	1006	998	1005
Starting Vehs	72	75	76	59	79	67	70
Ending Vehs	39	52	42	50	56	50	48
Travel Distance (km)	518	483	454	476	491	502	509
Travel Time (hr)	12.5	11.8	10.7	11.5	12.0	12.0	12.1
Total Delay (hr)	1.4	1.3	0.9	1.1	1.4	1.1	1.1
Total Stops	230	214	221	225	215	207	234
Fuel Used (l)	42.9	39.0	37.1	39.1	40.8	41.0	41.6

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	996	907	999	966
Vehs Exited	1026	924	1024	988
Starting Vehs	79	53	72	60
Ending Vehs	49	36	47	40
Travel Distance (km)	524	442	512	491
Travel Time (hr)	12.9	10.5	12.4	11.8
Total Delay (hr)	1.6	1.0	1.3	1.2
Total Stops	244	206	254	222
Fuel Used (l)	44.0	36.4	42.9	40.5

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	958	1013	974	937	971	953	969
Vehs Exited	952	1025	966	940	979	945	960
Starting Vehs	39	52	42	50	56	50	48
Ending Vehs	45	40	50	47	48	58	57
Travel Distance (km)	472	494	493	467	471	470	478
Travel Time (hr)	11.1	11.7	11.6	11.2	11.1	11.1	11.6
Total Delay (hr)	1.0	1.0	1.0	1.1	0.9	1.0	1.2
Total Stops	184	233	210	219	208	218	244
Fuel Used (l)	38.4	40.3	40.3	38.4	38.7	38.6	39.5

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	996	923	994	967
Vehs Exited	997	912	999	969
Starting Vehs	49	36	47	40
Ending Vehs	48	47	42	39
Travel Distance (km)	495	448	508	480
Travel Time (hr)	11.7	10.8	12.2	11.4
Total Delay (hr)	1.0	1.0	1.3	1.0
Total Stops	226	202	225	213
Fuel Used (l)	40.6	36.1	41.6	39.2

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	987	1016	996	950	1026	978	993
Vehs Exited	981	1002	1001	951	1032	978	994
Starting Vehs	45	40	50	47	48	58	57
Ending Vehs	51	54	45	46	42	58	56
Travel Distance (km)	494	487	496	474	521	491	497
Travel Time (hr)	11.7	11.7	12.0	11.2	12.5	11.6	11.9
Total Delay (hr)	1.0	1.1	1.1	1.0	1.3	1.0	1.1
Total Stops	222	241	236	231	253	220	237
Fuel Used (l)	39.6	40.0	40.3	38.8	42.5	39.9	40.5

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	966	977	1022	990
Vehs Exited	979	986	1014	991
Starting Vehs	48	47	42	39
Ending Vehs	35	38	50	35
Travel Distance (km)	478	482	511	493
Travel Time (hr)	11.2	11.5	12.3	11.8
Total Delay (hr)	1.0	1.1	1.3	1.1
Total Stops	228	228	256	234
Fuel Used (l)	38.7	39.6	41.9	40.2

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.8	0.6	0.5	0.2	4.4	3.2	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.5	0.0	0.0	0.0	2.6	2.8	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.4
Denied Del/Veh (s)	4.2	0.2	0.2	3.4	1.0	1.1	0.0	0.0	0.0	1.0
Total Delay (hr)	0.2	0.1	0.0	0.9	0.0	0.0	0.0	0.3	0.0	1.7
Total Del/Veh (s)	28.4	26.3	3.7	11.7	0.8	0.5	3.4	2.2	1.1	4.8
Stop Delay (hr)	0.2	0.1	0.0	0.7	0.0	0.0	0.0	0.0	0.0	1.0
Stop Del/Veh (s)	26.4	22.7	3.3	8.8	0.1	0.1	0.9	0.0	0.1	2.8

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.3	0.2	0.2	1.0	0.0	0.1	0.2	0.2	0.2	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.5	0.7	0.0	0.0	0.0	0.1	0.0	0.0	0.2	0.0
Total Del/Veh (s)	18.9	31.0	18.3	19.3	9.1	4.4	3.9	1.4	0.7	3.4	1.5	1.4
Stop Delay (hr)	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	14.1	27.5	17.6	16.8	4.1	3.4	1.7	0.0	0.0	1.4	0.0	0.1

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.3
Total Delay (hr)	1.5
Total Del/Veh (s)	6.2
Stop Delay (hr)	1.2
Stop Del/Veh (s)	4.7

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	0.9	0.5	0.7	4.9	6.2	0.7	0.2	1.1
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.0	3.0	2.5	0.0	0.0	0.4

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.1	0.2	0.2	0.4	0.3	0.2
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.2
Total Del/Veh (s)	6.6	3.6	0.4	0.2	1.3	0.2	1.3
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	4.6	3.1	0.0	0.0	0.3	0.0	0.8

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	4.3	2.9	2.7	0.2	0.2	0.0	0.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.6	2.7	0.6	0.0	0.0	0.0	0.2

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.1	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.3	3.1	1.6	0.1	0.3	0.2	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.2	2.6	0.6	0.0	0.0	0.0	0.5

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.3	0.2	0.1	0.1	0.1	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	1.6	0.7	1.2	0.0	4.5	2.1	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.5	1.9	0.4

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.1	0.1	0.2	0.2	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.8	2.6	2.6	0.2	0.2	0.1	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.7	2.4	0.5	0.0	0.0	0.0	0.5

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	2.0	0.2	4.2	2.6	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.3	2.3	0.5

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.2	0.0	0.2
Total Del/Veh (s)	1.6	0.2	0.3	0.1	5.2	3.4	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.1	0.0	0.0	0.0	2.7	2.3	1.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.1	0.0	0.9	0.0	3.7	2.1	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.1	0.0	2.0	2.1	0.4

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.3	0.3	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	8.4	4.3	4.3	1.1	0.2	0.0	0.7
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	6.2	4.0	1.5	0.2	0.0	0.0	0.2

Total Network Performance

Denied Delay (hr)	0.7
Denied Del/Veh (s)	0.6
Total Delay (hr)	5.2
Total Del/Veh (s)	4.3
Stop Delay (hr)	2.7
Stop Del/Veh (s)	2.3

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	8.5	19.0
Average Queue (m)	0.5	6.4
95th Queue (m)	4.4	15.8
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR
Maximum Queue (m)	16.1	18.4	57.0	12.1	9.8	14.9
Average Queue (m)	5.0	4.8	21.6	0.8	0.5	1.6
95th Queue (m)	12.3	13.6	42.4	16.8	4.5	7.7
Link Distance (m)		134.1		104.9		108.6
Upstream Blk Time (%)				0		
Queuing Penalty (veh)				0		
Storage Bay Dist (m)	25.0		75.0		50.0	
Storage Blk Time (%)		0	1			
Queuing Penalty (veh)		0	2			

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	13.0	47.5	33.8	42.6	13.4	8.7
Average Queue (m)	0.6	13.6	13.2	6.6	1.7	0.6
95th Queue (m)	6.5	33.6	28.5	27.0	8.1	4.2
Link Distance (m)		111.2		1000.3	367.9	411.5
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	25.0		30.0			
Storage Blk Time (%)		5	4	0		
Queuing Penalty (veh)		0	1	0		

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	4.3	16.7
Average Queue (m)	0.2	5.2
95th Queue (m)	2.6	13.6
Link Distance (m)	1000.3	131.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	21.4	2.5
Average Queue (m)	9.5	0.1
95th Queue (m)	16.6	1.7
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.3	6.2
Average Queue (m)	3.4	0.5
95th Queue (m)	10.4	4.1
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	16.0	9.9
Average Queue (m)	7.9	0.8
95th Queue (m)	13.6	5.2
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	NB
Directions Served	LR
Maximum Queue (m)	14.7
Average Queue (m)	6.1
95th Queue (m)	13.0
Link Distance (m)	172.6
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	18.8	14.7
Average Queue (m)	6.6	0.8
95th Queue (m)	14.4	6.1
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.2	9.0
Average Queue (m)	0.1	3.8
95th Queue (m)	2.3	10.9
Link Distance (m)	276.3	72.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	1.7	22.0
Average Queue (m)	0.1	11.9
95th Queue (m)	1.7	19.0
Link Distance (m)	66.2	81.7
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	10.9
Average Queue (m)	0.1	3.0
95th Queue (m)	1.3	9.3
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	14.2	20.4
Average Queue (m)	2.7	3.2
95th Queue (m)	10.0	12.7
Link Distance (m)	97.1	411.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 3

Intersection	
Int Delay, s/veh	30.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	2	94	137	2	18	15	136	63	10	386	2
Future Vol, veh/h	2	2	94	137	2	18	15	136	63	10	386	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	80	80	80	82	82	82	67	67	67
Heavy Vehicles, %	2	2	2	10	2	12	2	5	30	2	2	2
Mvmt Flow	4	4	188	171	3	23	18	166	77	15	576	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	862	887	578	945	850	205	579	0	0	243	0	0
Stage 1	608	608	-	241	241	-	-	-	-	-	-	-
Stage 2	254	279	-	704	609	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.2	6.52	6.32	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.2	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.59	4.018	3.408	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	275	283	516	234	298	811	995	-	-	1323	-	-
Stage 1	483	486	-	745	706	-	-	-	-	-	-	-
Stage 2	750	680	-	415	485	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	258	272	516	~ 143	287	811	995	-	-	1323	-	-
Mov Cap-2 Maneuver	258	272	-	~ 143	287	-	-	-	-	-	-	-
Stage 1	473	478	-	729	691	-	-	-	-	-	-	-
Stage 2	711	666	-	257	477	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.5	175.2	0.6	0.2
HCM LOS	C	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	995	-	-	258	507	143	686	1323	-	-
HCM Lane V/C Ratio	0.018	-	-	0.016	0.379	1.198	0.036	0.011	-	-
HCM Control Delay (s)	8.7	0	-	19.2	16.4	199.3	10.4	7.8	0	-
HCM Lane LOS	A	A	-	C	C	F	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	1.8	10	0.1	0	-	-

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

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	5492	5493	5477	5421	5364	5633	5604
Vehs Exited	5494	5503	5492	5428	5371	5618	5601
Starting Vehs	62	64	74	61	66	55	71
Ending Vehs	60	54	59	54	59	70	74
Travel Distance (km)	2740	2701	2703	2690	2663	2790	2765
Travel Time (hr)	67.7	65.3	65.9	66.2	64.9	68.4	67.9
Total Delay (hr)	8.0	6.5	7.0	7.5	6.8	7.8	7.7
Total Stops	873	867	903	915	875	949	916
Fuel Used (l)	224.6	219.6	220.6	219.7	216.3	228.2	226.5

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	5536	5304	5368	5470
Vehs Exited	5550	5310	5386	5475
Starting Vehs	61	57	68	51
Ending Vehs	47	51	50	48
Travel Distance (km)	2743	2620	2640	2706
Travel Time (hr)	68.0	64.0	64.7	66.3
Total Delay (hr)	8.2	6.9	7.1	7.3
Total Stops	933	869	907	902
Fuel Used (l)	225.7	214.3	217.4	221.3

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1628	1569	1575	1589	1550	1635	1598
Vehs Exited	1590	1553	1569	1573	1546	1607	1601
Starting Vehs	62	64	74	61	66	55	71
Ending Vehs	100	80	80	77	70	83	68
Travel Distance (km)	804	758	773	796	747	793	779
Travel Time (hr)	20.6	18.4	19.0	20.5	18.6	19.9	19.7
Total Delay (hr)	3.1	1.9	2.2	3.0	2.2	2.7	2.7
Total Stops	288	272	303	325	291	314	288
Fuel Used (l)	67.1	61.6	64.0	66.0	61.4	65.6	65.1

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by PHF, Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	1606	1579	1534	1591
Vehs Exited	1595	1584	1533	1574
Starting Vehs	61	57	68	51
Ending Vehs	72	52	69	59
Travel Distance (km)	798	783	735	777
Travel Time (hr)	20.8	19.8	18.1	19.5
Total Delay (hr)	3.3	2.7	2.0	2.6
Total Stops	320	331	273	302
Fuel Used (l)	66.5	65.7	61.3	64.4

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1324	1285	1256	1273	1281	1391	1305
Vehs Exited	1356	1287	1276	1272	1281	1404	1305
Starting Vehs	100	80	80	77	70	83	68
Ending Vehs	68	78	60	78	70	70	68
Travel Distance (km)	656	617	624	636	659	705	642
Travel Time (hr)	16.0	14.9	15.0	15.4	16.2	17.2	15.5
Total Delay (hr)	1.7	1.5	1.5	1.6	1.8	1.8	1.5
Total Stops	201	204	168	185	198	237	199
Fuel Used (l)	53.4	50.5	50.4	51.0	53.3	57.2	52.3

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1330	1213	1251	1292
Vehs Exited	1354	1205	1250	1298
Starting Vehs	72	52	69	59
Ending Vehs	48	60	70	58
Travel Distance (km)	659	584	621	640
Travel Time (hr)	16.2	14.1	15.2	15.6
Total Delay (hr)	1.8	1.3	1.6	1.6
Total Stops	216	175	201	197
Fuel Used (l)	54.2	47.6	50.7	52.1

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1266	1333	1344	1258	1262	1313	1315
Vehs Exited	1271	1369	1344	1272	1279	1316	1318
Starting Vehs	68	78	60	78	70	70	68
Ending Vehs	63	42	60	64	53	67	65
Travel Distance (km)	633	684	671	613	626	664	654
Travel Time (hr)	15.7	16.6	16.2	14.9	15.1	16.0	16.0
Total Delay (hr)	1.8	1.7	1.6	1.5	1.4	1.7	1.7
Total Stops	190	192	213	217	207	201	228
Fuel Used (l)	52.3	55.3	54.3	50.5	50.3	54.2	53.4

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1334	1243	1265	1292
Vehs Exited	1332	1241	1263	1305
Starting Vehs	48	60	70	58
Ending Vehs	50	62	72	48
Travel Distance (km)	661	630	613	645
Travel Time (hr)	15.9	15.1	14.9	15.6
Total Delay (hr)	1.5	1.4	1.5	1.6
Total Stops	203	167	193	199
Fuel Used (l)	53.5	50.3	50.9	52.5

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	1	10	2	3	4	5	6
Vehs Entered	1274	1306	1302	1301	1271	1294	1386
Vehs Exited	1277	1294	1303	1311	1265	1291	1377
Starting Vehs	63	42	60	64	53	67	65
Ending Vehs	60	54	59	54	59	70	74
Travel Distance (km)	646	642	635	645	631	629	691
Travel Time (hr)	15.4	15.4	15.6	15.4	15.1	15.2	16.7
Total Delay (hr)	1.4	1.5	1.7	1.4	1.3	1.6	1.8
Total Stops	194	199	219	188	179	197	201
Fuel Used (l)	51.9	52.2	52.0	52.1	51.3	51.3	55.6

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors, Anti PHF.

Run Number	7	8	9	Avg
Vehs Entered	1266	1269	1318	1295
Vehs Exited	1269	1280	1340	1301
Starting Vehs	50	62	72	48
Ending Vehs	47	51	50	48
Travel Distance (km)	625	623	670	644
Travel Time (hr)	15.2	15.0	16.5	15.6
Total Delay (hr)	1.6	1.4	2.0	1.6
Total Stops	194	196	240	197
Fuel Used (l)	51.4	50.7	54.5	52.3

4: Snow's Lane & Ashkay Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2
Total Del/Veh (s)	1.8	0.7	0.9	0.7	6.7	3.8	1.0
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.5	0.0	0.0	0.0	5.0	3.4	0.2

9: Logy Bay Road & ORR On-Ramp/Marine Drive Performance by movement

Movement	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.3	0.5	0.0	0.0	0.0	0.0	0.9
Denied Del/Veh (s)	4.0	0.2	0.2	3.4	2.2	2.3	0.0	0.0	0.0	2.0
Total Delay (hr)	0.2	0.2	0.1	0.5	0.4	0.0	0.0	0.1	0.0	1.5
Total Del/Veh (s)	36.9	28.3	14.7	5.3	1.8	1.0	9.5	1.0	0.5	3.4
Stop Delay (hr)	0.2	0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	34.5	24.4	14.1	1.9	0.0	0.0	7.6	0.0	0.0	1.5

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	4.2	0.2	0.2	0.2	0.0	0.0	0.7	0.6	0.6	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.9	0.0	0.0	0.1	0.5	0.1	0.0	0.0	0.0
Total Del/Veh (s)	16.5	31.2	6.6	32.2	19.4	6.2	4.4	3.4	2.1	5.5	0.9	0.7
Stop Delay (hr)	0.0	0.0	0.1	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	14.0	27.1	5.9	29.8	12.9	5.0	0.5	0.0	0.0	3.9	0.1	0.3

12: Logy Bay Road & Stick Pond Road/Cadigan's Road Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.5
Total Delay (hr)	1.7
Total Del/Veh (s)	5.9
Stop Delay (hr)	1.0
Stop Del/Veh (s)	3.3

13: Marine Drive & Cadigan's Road Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.1	0.1	0.2	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	1.6	0.5	0.9	5.4	6.1	1.3	0.3	1.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.1	0.0	0.1	3.3	2.4	0.0	0.0	0.5

19: Logy Bay Road/Outer Cove Road & Lower Road Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.1	0.1	0.4	0.4	0.1	0.2	0.4
Total Delay (hr)	0.1	0.0	0.1	0.0	0.0	0.0	0.3
Total Del/Veh (s)	7.8	5.9	1.3	0.6	3.4	0.2	1.5
Stop Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Stop Del/Veh (s)	5.9	5.4	0.0	0.0	2.3	0.0	0.4

24: Outer Cove Road & Big Meadow Drive Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	4.5	2.2	2.5	0.5	0.1	0.1	0.5
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.9	2.0	0.1	0.0	0.0	0.0	0.1

26: Outer Cove Road & St. Francis Road Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.3	0.4	0.0	0.0	0.3
Total Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Total Del/Veh (s)	7.1	2.1	1.5	0.8	0.1	0.0	0.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	5.2	2.0	0.2	0.0	0.0	0.0	0.1

30: Outer Cove Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Total Del/Veh (s)	0.8	0.3	2.8	0.2	5.6	3.5	3.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Stop Del/Veh (s)	0.0	0.0	0.5	0.0	2.7	2.3	1.5

32: Outer Cove Road & Pine Line Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Del/Veh (s)	5.4	0.0	2.2	2.1	0.3	0.1	0.0	0.9
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	3.3	0.0	2.1	0.1	0.0	0.0	0.0	0.3

37: Sandalwood Drive & Pine Line Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.3	0.2	2.0	0.1	4.4	2.3	0.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.4	0.0	2.5	2.0	0.3

42: Middle Cove Road & Marine Drive Performance by movement

Movement	EBL	EBT	WBT	WBR	SBL	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.2	0.2	0.1	0.1	0.2
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Total Del/Veh (s)	2.9	0.1	1.3	0.6	4.9	2.3	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	1.3	0.0	0.0	0.0	2.8	2.0	0.4

47: Lower Road & Marine Drive Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.2	0.1	0.1	0.1	0.1	0.1
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Del/Veh (s)	0.0	0.0	0.8	0.0	4.4	2.4	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	0.0	0.0	0.0	0.0	2.5	2.1	0.9

50: Logy Bay Road & Clover Dale Close Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.2	0.2	0.0
Total Delay (hr)	0.0	0.0	0.1	0.4	0.0	0.0	0.5
Total Del/Veh (s)	10.1	3.5	4.6	3.0	0.1	0.0	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	8.2	3.1	0.4	0.0	0.0	0.0	0.1

Total Network Performance

Denied Delay (hr)	1.2
Denied Del/Veh (s)	0.8
Total Delay (hr)	6.1
Total Del/Veh (s)	4.0
Stop Delay (hr)	2.2
Stop Del/Veh (s)	1.4

Intersection: 4: Snow's Lane & Ashkay Drive

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (m)	12.0	15.2
Average Queue (m)	0.9	4.8
95th Queue (m)	6.1	12.8
Link Distance (m)	33.4	56.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 9: Logy Bay Road & ORR On-Ramp/Marine Drive

Movement	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	L	TR
Maximum Queue (m)	16.4	26.4	35.4	2.5	11.1	6.0
Average Queue (m)	4.5	7.7	14.2	0.1	2.7	0.3
95th Queue (m)	12.5	17.9	28.5	1.6	9.1	2.9
Link Distance (m)		134.1		104.9		108.6
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	25.0		75.0		50.0	
Storage Blk Time (%)	0	1	0			
Queuing Penalty (veh)	0	0	0			

Intersection: 12: Logy Bay Road & Stick Pond Road/Cadigan's Road

Movement	EB	EB	WB	WB	NB	SB
Directions Served	L	TR	L	TR	LTR	LTR
Maximum Queue (m)	11.4	22.7	35.3	30.3	20.1	11.5
Average Queue (m)	1.6	8.3	13.1	3.6	3.2	0.8
95th Queue (m)	7.6	17.7	28.4	18.0	13.6	5.6
Link Distance (m)		111.2		1000.3	367.9	411.5
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)	25.0		30.0			
Storage Blk Time (%)		0	5	0		
Queuing Penalty (veh)		0	1	0		

Intersection: 13: Marine Drive & Cadigan's Road

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (m)	6.8	14.4	0.8
Average Queue (m)	0.3	7.0	0.0
95th Queue (m)	3.1	13.1	0.8
Link Distance (m)	1000.3	131.0	70.9
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 19: Logy Bay Road/Outer Cove Road & Lower Road

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	16.8	6.3
Average Queue (m)	7.0	0.3
95th Queue (m)	14.4	3.4
Link Distance (m)	67.3	86.3
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 24: Outer Cove Road & Big Meadow Drive

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	12.2	6.6
Average Queue (m)	2.7	0.2
95th Queue (m)	9.8	3.4
Link Distance (m)	87.6	156.9
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 26: Outer Cove Road & St. Francis Road

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	10.2	11.7
Average Queue (m)	3.9	0.9
95th Queue (m)	10.8	5.9
Link Distance (m)	162.7	204.0
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 30: Outer Cove Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	5.4	21.4
Average Queue (m)	0.2	10.8
95th Queue (m)	2.3	17.3
Link Distance (m)	91.2	172.6
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 32: Outer Cove Road & Pine Line

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	17.4	7.0
Average Queue (m)	5.9	0.3
95th Queue (m)	13.6	3.3
Link Distance (m)	270.3	96.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 37: Sandalwood Drive & Pine Line

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	2.6	9.0
Average Queue (m)	0.1	2.5
95th Queue (m)	1.6	9.0
Link Distance (m)	276.3	72.8
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 42: Middle Cove Road & Marine Drive

Movement	EB	WB	SB
Directions Served	LT	TR	LR
Maximum Queue (m)	5.6	0.7	16.2
Average Queue (m)	0.3	0.0	7.2
95th Queue (m)	3.0	0.7	14.4
Link Distance (m)	66.2	118.1	81.7
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 47: Lower Road & Marine Drive

Movement	WB	NB
Directions Served	LT	LR
Maximum Queue (m)	1.8	9.6
Average Queue (m)	0.1	5.7
95th Queue (m)	1.3	11.1
Link Distance (m)	63.8	74.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 50: Logy Bay Road & Clover Dale Close

Movement	EB	NB
Directions Served	LR	LT
Maximum Queue (m)	11.2	23.5
Average Queue (m)	1.7	4.0
95th Queue (m)	7.7	15.1
Link Distance (m)	97.1	411.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 1

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	2	58	93	2	8	49	550	125	6	141	3
Future Vol, veh/h	5	2	58	93	2	8	49	550	125	6	141	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	300	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	50	50	50	89	89	89	89	89	89	79	79	79
Heavy Vehicles, %	2	2	2	8	2	2	2	2	7	2	2	2
Mvmt Flow	10	4	116	104	2	9	55	618	140	8	178	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1000	1064	180	1054	996	688	182	0	0	758	0	0
Stage 1	196	196	-	798	798	-	-	-	-	-	-	-
Stage 2	804	868	-	256	198	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.18	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.18	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.572	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	222	223	863	199	244	446	1393	-	-	853	-	-
Stage 1	806	739	-	371	398	-	-	-	-	-	-	-
Stage 2	377	370	-	735	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	203	205	863	159	225	446	1393	-	-	853	-	-
Mov Cap-2 Maneuver	203	205	-	159	225	-	-	-	-	-	-	-
Stage 1	750	732	-	345	370	-	-	-	-	-	-	-
Stage 2	341	344	-	626	730	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	11.5	58.3	0.5	0.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1393	-	-	203	780	159	373	853	-	-
HCM Lane V/C Ratio	0.04	-	-	0.049	0.154	0.657	0.03	0.009	-	-
HCM Control Delay (s)	7.7	0	-	23.7	10.5	63	15	9.3	0	-
HCM Lane LOS	A	A	-	C	B	F	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.5	3.7	0.1	0	-	-

Appendix G

Traffic Signal Warrant Analysis Sheets

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 21, 2017**
Side Street (name)	**Cadigan's Road**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB			1				1	
Logy Bay Road	SB			1				1	
Cadigan's Road	WB			1					
Cadigan's Road	EB			1					

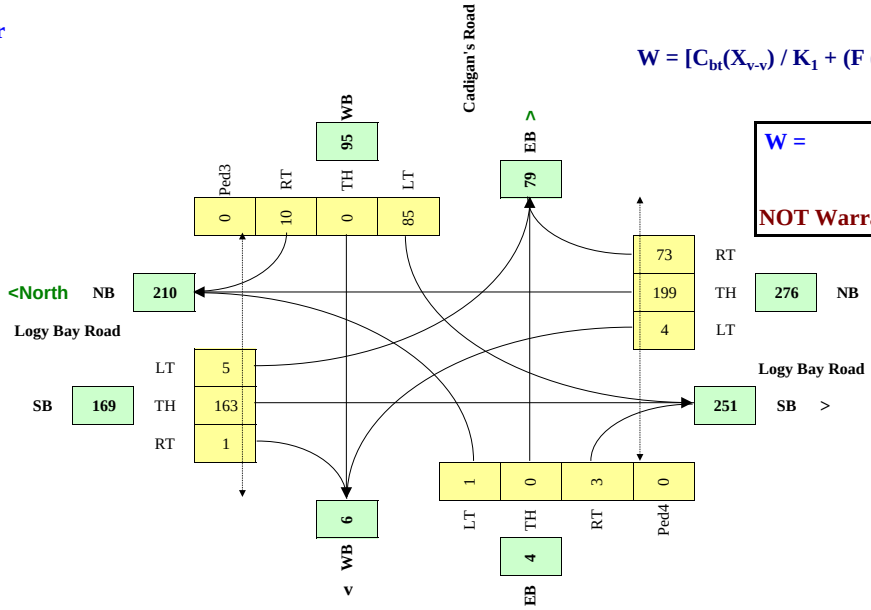
Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Cadigan's Road	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	1	73	46	5	202	0	98	0	11	0	0	2	0	0	0	0
8:00 - 9:00	1	93	58	8	304	1	113	0	10	1	0	3	0	0	0	0
11:00 - 12:00	4	120	57	3	107	1	70	1	8	2	0	3	0	0	0	0
12:00 - 13:00	2	159	77	4	112	4	76	0	15	0	1	4	0	0	0	0
16:00 - 17:00	4	354	101	5	120	1	79	0	6	3	1	2	0	0	0	0
17:00 - 18:00	12	395	100	6	132	1	73	0	7	1	0	3	0	0	0	0
Total (6-hour peak)	**24**	**1,194**	**439**	**31**	**977**	**8**	**509**	**1**	**57**	**7**	**2**	**17**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**4**	**199**	**73**	**5**	**163**	**1**	**85**	**0**	**10**	**1**	**0**	**3**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	25	25	0
		Veh	*Ped*

NOT Warranted

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 27, 2017**
Side Street (name)	**Clover Dale Close**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

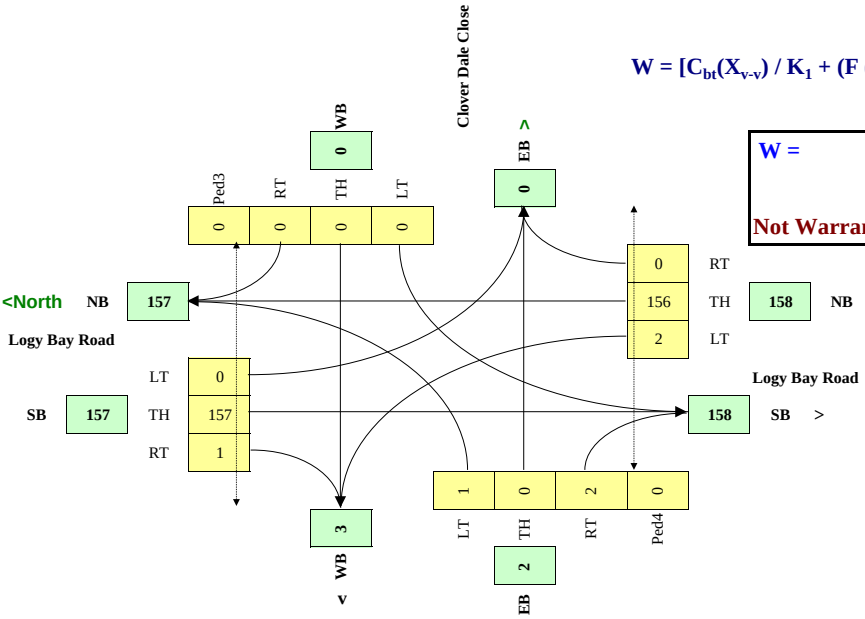
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB			1				1	
Logy Bay Road	SB			1				1	
Clover Dale Close	WB								
Clover Dale Close	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Clover Dale Close	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	0	80	0	0	199	1	0	0	0	2	0	4	0	0	0	0
8:00 - 9:00	1	79	0	0	295	0	0	0	0	0	0	1	0	0	0	0
11:00 - 12:00	3	78	0	0	103	1	0	0	0	1	0	4	0	0	0	0
12:00 - 13:00	0	152	0	0	111	0	0	0	0	0	0	0	0	0	0	0
16:00 - 17:00	4	281	0	0	114	1	0	0	0	0	0	0	0	0	0	0
17:00 - 18:00	4	266	0	0	118	1	0	0	0	1	0	0	0	0	0	0
Total (6-hour peak)	**12**	**936**	**0**	**0**	**940**	**4**	**0**	**0**	**0**	**4**	**0**	**9**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**2**	**156**	**0**	**0**	**157**	**1**	**0**	**0**	**0**	**1**	**0**	**2**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	0	0	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 27, 2017**
Side Street (name)	**Marine Drive**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1			1			1	
Logy Bay Road	SB	1			1			1	
Marine Drive	WB			1					
Marine Drive	EB								

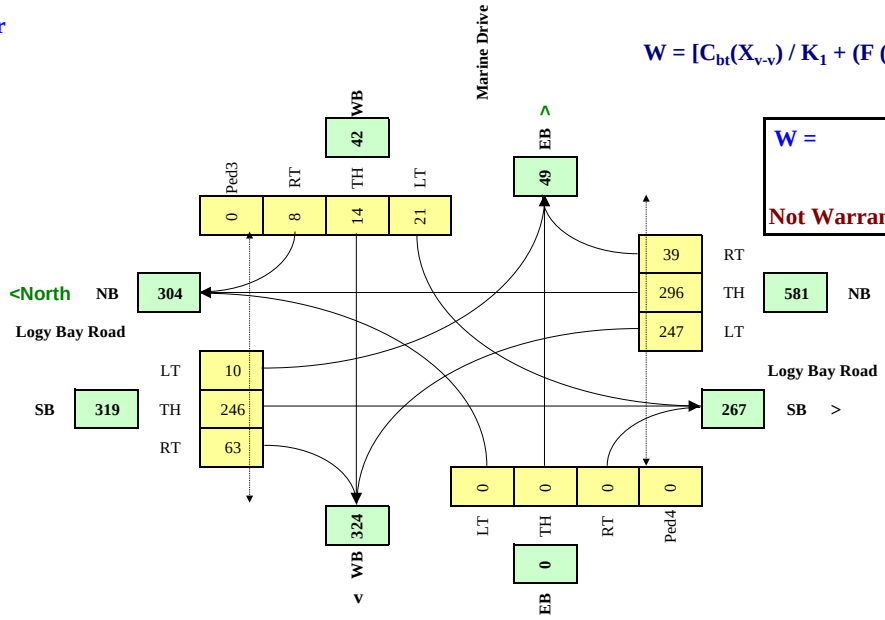
Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Marine Drive	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	173	116	15	4	262	80	31	13	5	0	0	0	0	0	0	0
8:00 - 9:00	258	175	32	3	382	89	21	11	5	0	0	0	0	0	0	0
11:00 - 12:00	189	191	35	12	202	43	14	12	7	0	0	0	0	0	0	0
12:00 - 13:00	258	282	48	15	233	50	22	16	8	0	0	0	0	0	0	0
16:00 - 17:00	331	522	43	15	204	64	17	21	15	0	0	0	0	0	0	0
17:00 - 18:00	270	489	59	10	195	52	18	11	6	0	0	0	0	0	0	0
Total (6-hour peak)	**1,479**	**1,775**	**232**	**59**	**1,478**	**378**	**123**	**84**	**46**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**247**	**296**	**39**	**10**	**246**	**63**	**21**	**14**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F(X_{v\text{-}p}) L) / K_2] \times C_i$$



W =	72	72	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 21, 2017**
Side Street (name)	**Outer Cove Road**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB			1				1	
Logy Bay Road	SB			1				1	
Outer Cove Road	WB			1					
Outer Cove Road	EB			1					

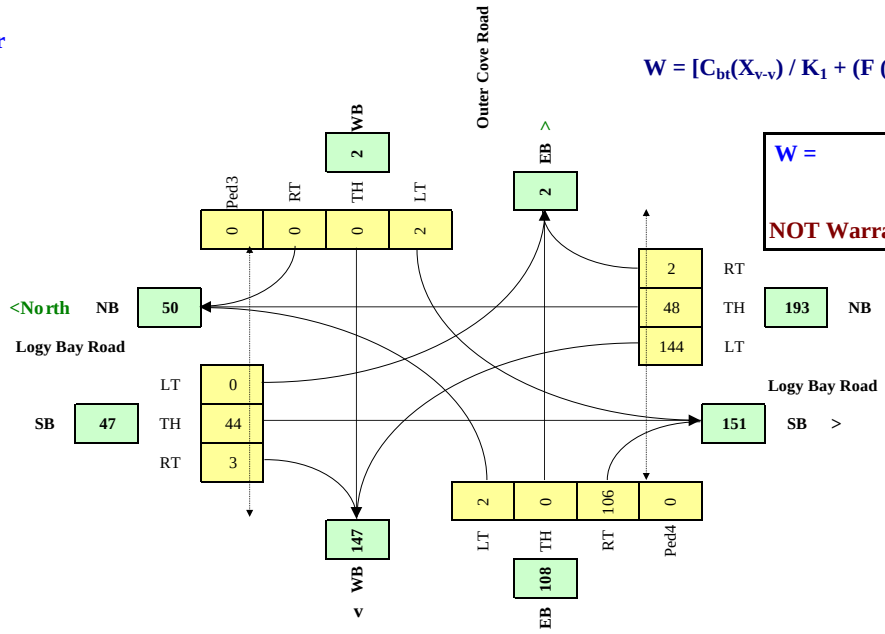
Demographics		
Elementary School	(y/n)	y
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	y
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Outer Cove Road	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	59	21	0	0	61	6	1	0	0	3	0	147	0	0	0	0
8:00 - 9:00	66	23	0	0	66	1	3	0	0	3	0	197	0	0	0	0
11:00 - 12:00	74	43	2	0	37	4	1	0	0	0	0	67	0	0	0	0
12:00 - 13:00	110	53	1	0	33	5	1	0	0	3	0	70	0	0	0	0
16:00 - 17:00	265	69	4	1	29	2	2	0	0	1	2	76	0	0	0	0
17:00 - 18:00	290	77	2	1	36	0	1	0	0	1	0	78	0	0	0	0
Total (6-hour peak)	**864**	**286**	**9**	**2**	**262**	**18**	**9**	**0**	**0**	**11**	**2**	**635**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**144**	**48**	**2**	**0**	**44**	**3**	**2**	**0**	**0**	**2**	**0**	**106**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F(X_{v\text{-}p}) L) / K_2] \times C_i$$



W =	6	6	0
		Veh	*Ped*

NOT Warranted

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 26, 2017**
Side Street (name)	**Snow's Lane**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

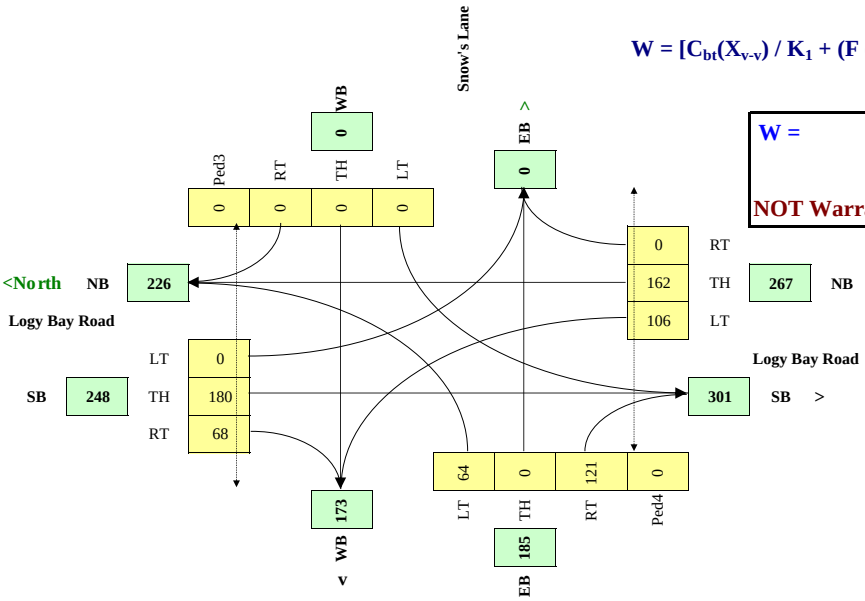
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1			1			1	
Logy Bay Road	SB				1			1	
Snow's Lane	WB								
Snow's Lane	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	3.0%	n	0.0
Snow's Lane	EW		3.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	30	86	0	0	221	49	0	0	0	29	0	90	0	0	0	0
8:00 - 9:00	59	85	0	0	308	78	0	0	0	36	0	175	0	0	0	0
11:00 - 12:00	81	83	0	0	116	72	0	0	0	57	0	104	0	0	0	0
12:00 - 13:00	119	129	0	0	128	84	0	0	0	74	0	131	0	0	0	0
16:00 - 17:00	160	312	0	0	164	70	0	0	0	95	0	117	0	0	0	0
17:00 - 18:00	184	275	0	0	144	52	0	0	0	92	0	110	0	0	0	0
Total (6-hour peak)	**633**	**970**	**0**	**0**	**1,081**	**405**	**0**	**0**	**0**	**383**	**0**	**727**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**106**	**162**	**0**	**0**	**180**	**68**	**0**	**0**	**0**	**64**	**0**	**121**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	40	40	0
		Veh	*Ped*

NOT Warranted

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Marine Drive**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 26, 2017**
Side Street (name)	**Cadigan's Road**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Marine Drive	NB			1				1	
Marine Drive	SB			1				1	
Cadigan's Road	WB								
Cadigan's Road	EB			1					

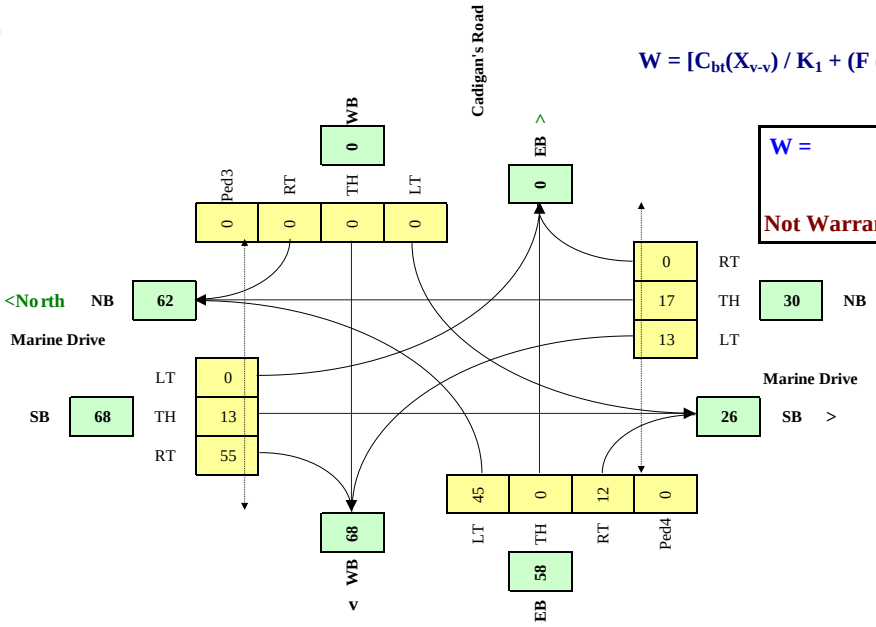
Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Marine Drive	NS	50	2.0%	n	0.0
Cadigan's Road	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1** **NS**	**Ped2** **NS**	**Ped3** **EW**	**Ped4** **EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	14	8	0	0	12	56	0	0	0	27	0	5	0	0	0	0
8:00 - 9:00	12	5	0	0	22	55	0	0	0	33	0	14	0	0	0	0
11:00 - 12:00	9	17	0	0	11	45	0	0	0	37	0	5	0	0	0	0
12:00 - 13:00	12	22	0	0	17	56	0	0	0	51	0	14	0	0	0	0
16:00 - 17:00	15	25	0	0	10	71	0	0	0	58	0	19	0	0	0	0
17:00 - 18:00	16	22	0	0	7	46	0	0	0	66	0	17	0	0	0	0
Total (6-hour peak)	**78**	**99**	**0**	**0**	**79**	**329**	**0**	**0**	**0**	**272**	**0**	**74**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**13**	**17**	**0**	**0**	**13**	**55**	**0**	**0**	**0**	**45**	**0**	**12**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F(X_{v\text{-}p}) L) / K_2] \times C_i$$



W = 2 2 0

Veh *Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Marine Drive**	**Direction (EW or NS)**	**EW**	**Date:**	**Sep 19, 2017**
Side Street (name)	**Lower Road**	**Direction (EW or NS)**	**NS**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Marine Drive	WB			1				1	
Marine Drive	EB			1				1	
Lower Road	NB			1					
Lower Road	SB								

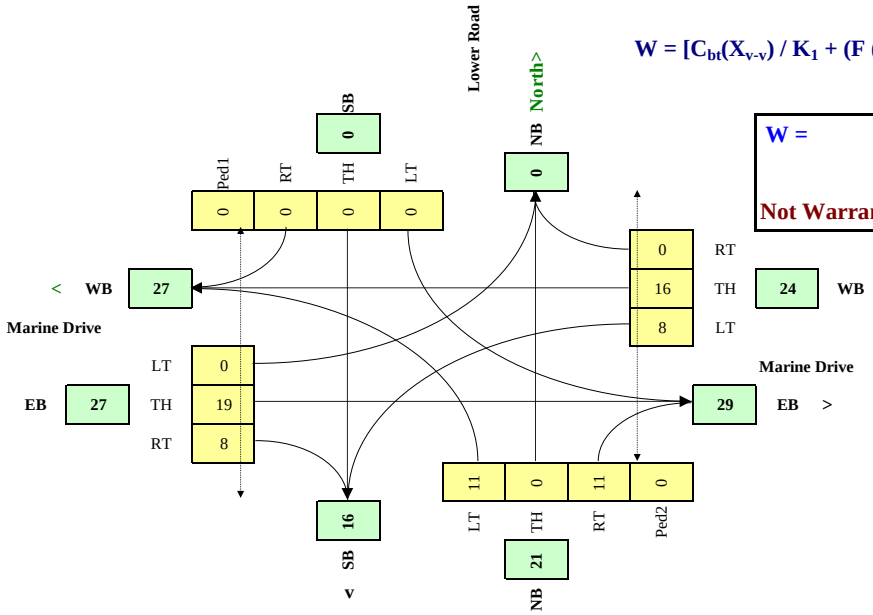
Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Marine Drive	EW	50	2.0%	n	0.0
Lower Road	NS		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	1	0	8	0	0	0	8	5	0	0	15	5	0	0	0	0
8:00 - 9:00	4	0	9	0	0	0	3	16	0	0	19	11	0	0	0	0
11:00 - 12:00	13	0	5	0	0	0	10	9	0	0	17	9	0	0	0	0
12:00 - 13:00	11	0	16	0	0	0	6	19	0	0	24	11	0	0	0	0
16:00 - 17:00	21	0	14	0	0	0	8	21	0	0	25	8	0	0	0	0
17:00 - 18:00	15	0	11	0	0	0	12	26	0	0	12	4	0	0	0	0
Total (6-hour peak)	**65**	**0**	**63**	**0**	**0**	**0**	**47**	**96**	**0**	**0**	**112**	**48**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**11**	**0**	**11**	**0**	**0**	**0**	**8**	**16**	**0**	**0**	**19**	**8**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	0	0	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Middle Cove Road**	**Direction (EW or NS)**	**EW**	**Date:**	**Sep 19, 2017**
Side Street (name)	**Marine Drive**	**Direction (EW or NS)**	**NS**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

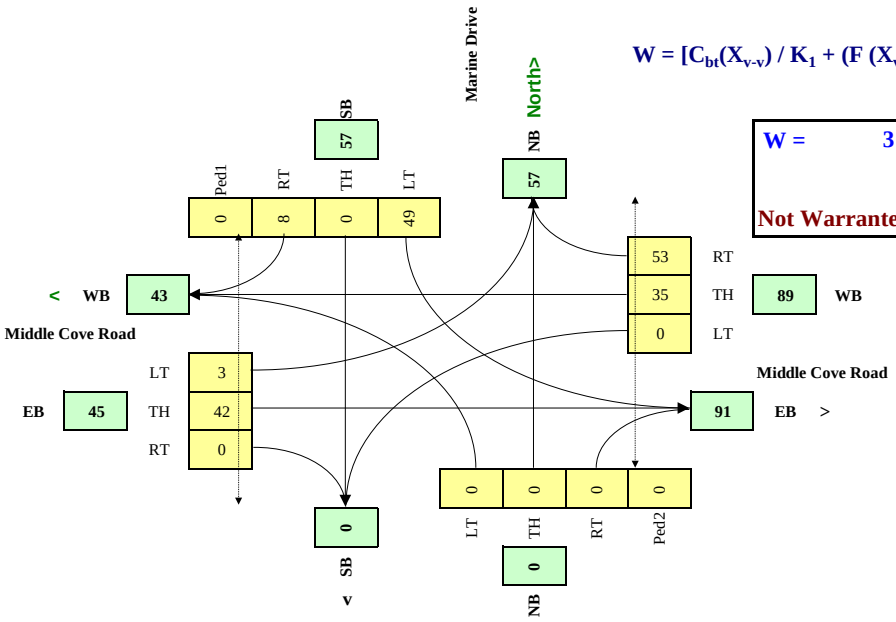
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Middle Cove Road	WB			1				1	
Middle Cove Road	EB			1				1	
Marine Drive	NB								
Marine Drive	SB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Middle Cove Road	EW	50	2.0%	n	0.0
Marine Drive	NS		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	0	0	0	79	0	3	0	11	10	2	33	0	0	0	0	0
8:00 - 9:00	0	0	0	100	0	15	0	20	22	2	72	0	0	0	0	0
11:00 - 12:00	0	0	0	24	0	6	0	31	38	3	29	0	0	0	0	0
12:00 - 13:00	0	0	0	30	0	11	0	42	40	6	49	0	0	0	0	0
16:00 - 17:00	0	0	0	33	0	6	0	49	107	4	45	0	0	0	0	0
17:00 - 18:00	0	0	0	28	0	5	0	59	102	3	24	0	0	0	0	0
Total (6-hour peak)	**0**	**0**	**0**	**294**	**0**	**46**	**0**	**212**	**319**	**20**	**252**	**0**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**0**	**0**	**0**	**49**	**0**	**8**	**0**	**35**	**53**	**3**	**42**	**0**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	3	3	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Marine Drive**	**Direction (EW or NS)**	**EW**	**Date:**	**Sep 19, 2017**
Side Street (name)	**Outer Cove Road**	**Direction (EW or NS)**	**NS**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

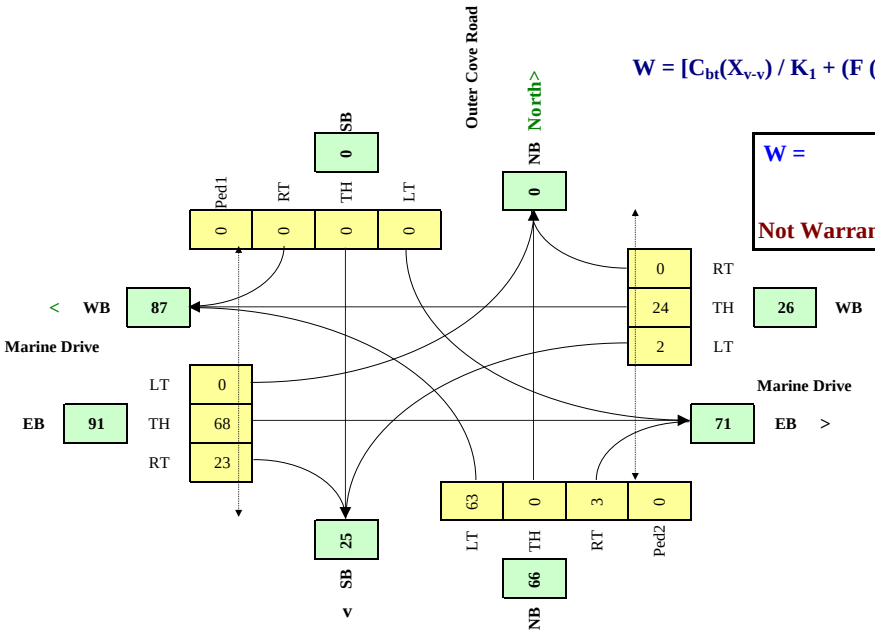
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Marine Drive	WB			1				1	
Marine Drive	EB			1				1	
Outer Cove Road	NB			1					
Outer Cove Road	SB								

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Marine Drive	EW	50	2.0%	n	0.0
Outer Cove Road	NS		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	9	0	3	0	0	0	0	9	0	0	91	18	0	0	0	0
8:00 - 9:00	28	0	4	0	0	0	1	18	0	0	150	26	0	0	0	0
11:00 - 12:00	44	0	5	0	0	0	2	25	0	0	29	22	0	0	0	0
12:00 - 13:00	47	0	0	0	0	0	1	22	0	0	41	28	0	0	0	0
16:00 - 17:00	123	0	6	0	0	0	1	39	0	0	58	29	0	0	0	0
17:00 - 18:00	124	0	1	0	0	0	8	31	0	0	39	15	0	0	0	0
Total (6-hour peak)	**375**	**0**	**19**	**0**	**0**	**0**	**13**	**144**	**0**	**0**	**408**	**138**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**63**	**0**	**3**	**0**	**0**	**0**	**2**	**24**	**0**	**0**	**68**	**23**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F(X_{v\text{-}p}) L) / K_2] \times C_i$$

W =	4	4	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Outer Cove Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 20, 2017**
Side Street (name)	**Big Meadow Drive**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

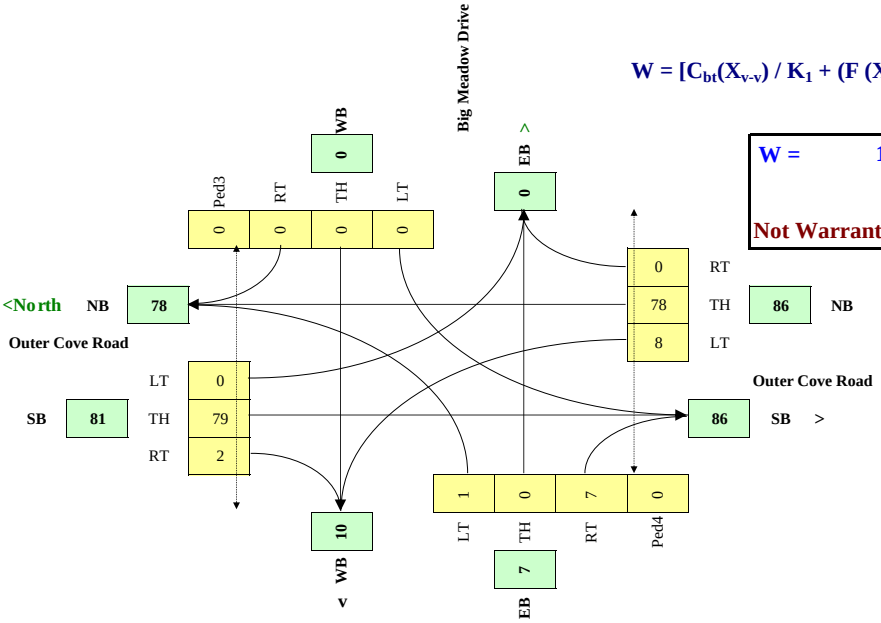
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Outer Cove Road	NB			1				1	
Outer Cove Road	SB			1				1	
Big Meadow Drive	WB								
Big Meadow Drive	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Outer Cove Road	NS	50	2.0%	n	0.0
Big Meadow Drive	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	6	20	0	0	105	2	0	0	0	0	0	10	0	0	0	0
8:00 - 9:00	5	35	0	0	162	2	0	0	0	1	0	7	0	0	0	0
11:00 - 12:00	4	51	0	0	46	2	0	0	0	1	0	4	0	0	0	0
12:00 - 13:00	7	58	0	0	61	1	0	0	0	0	0	8	0	0	0	0
16:00 - 17:00	17	167	0	0	56	3	0	0	0	1	0	6	0	0	0	0
17:00 - 18:00	9	135	0	0	43	3	0	0	0	1	0	5	0	0	0	0
Total (6-hour peak)	**48**	**466**	**0**	**0**	**473**	**13**	**0**	**0**	**0**	**4**	**0**	**40**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**8**	**78**	**0**	**0**	**79**	**2**	**0**	**0**	**0**	**1**	**0**	**7**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	1	1	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Outer Cove Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 27, 2017**
Side Street (name)	**Pine Line**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Outer Cove Road	NB			1				1	
Outer Cove Road	SB			1				1	
Pine Line	WB								
Pine Line	EB			1					

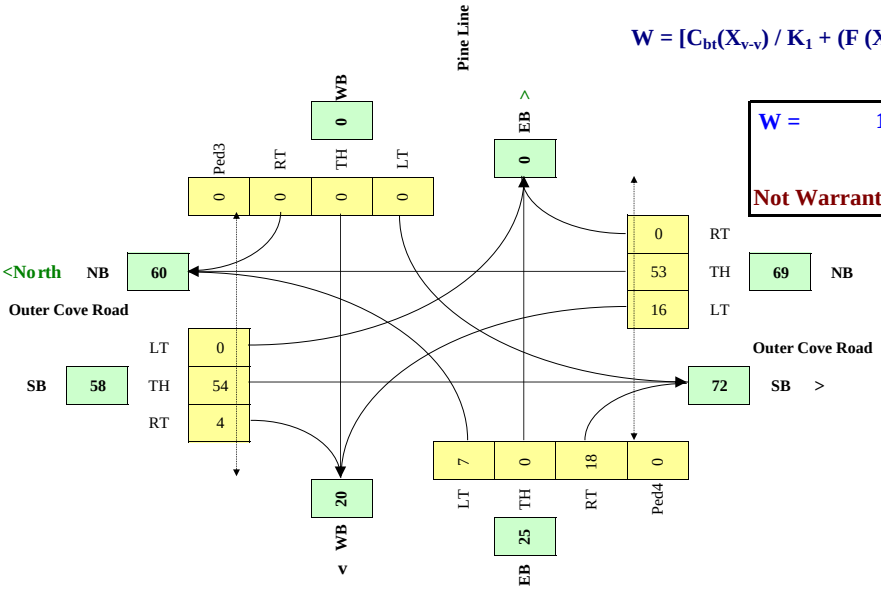
Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Outer Cove Road	NS	50	2.0%	n	0.0
Pine Line	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	5	14	0	0	83	4	0	0	0	0	0	22	0	0	0	0
8:00 - 9:00	11	12	0	0	106	4	0	0	0	5	0	30	0	0	0	0
11:00 - 12:00	7	33	0	0	34	5	0	0	0	5	0	10	0	0	0	0
12:00 - 13:00	20	35	0	0	29	6	0	0	0	8	0	18	0	0	0	0
16:00 - 17:00	36	119	0	0	37	0	0	0	0	12	0	17	0	0	0	0
17:00 - 18:00	16	103	0	0	32	5	0	0	0	11	0	11	0	0	0	0
Total (6-hour peak)	**95**	**316**	**0**	**0**	**321**	**24**	**0**	**0**	**0**	**41**	**0**	**108**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**16**	**53**	**0**	**0**	**54**	**4**	**0**	**0**	**0**	**7**	**0**	**18**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	1	1	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Outer Cove Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 21, 2017**
Side Street (name)	**Big Meadow Drive**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Outer Cove Road	NB			1				1	
Outer Cove Road	SB			1				1	
Big Meadow Drive	WB								
Big Meadow Drive	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

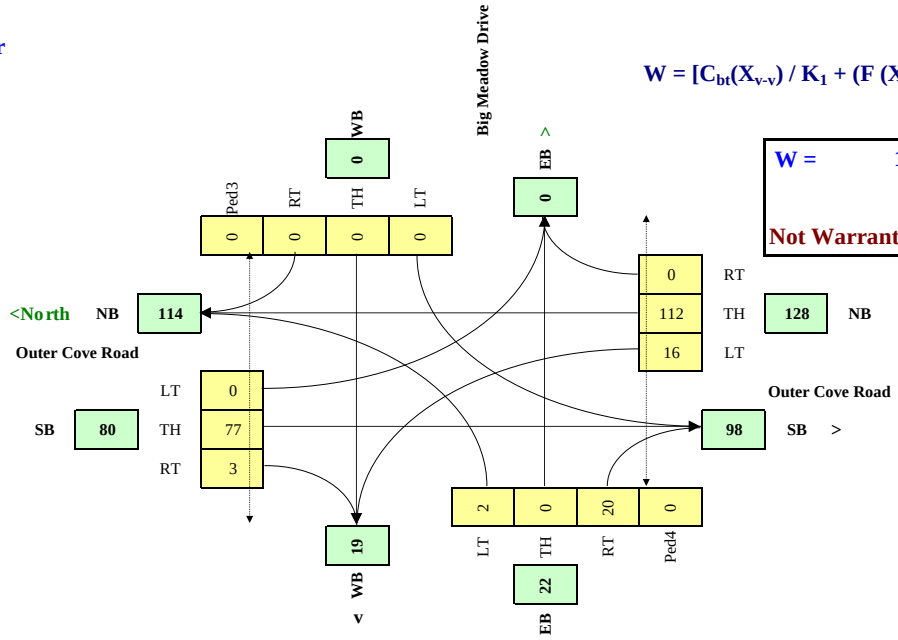
Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Outer Cove Road	NS	50	2.0%	n	0.0
Big Meadow Drive	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	6	18	0	0	118	2	0	0	0	1	0	25	0	0	0	0
8:00 - 9:00	11	50	0	0	129	5	0	0	0	1	0	43	0	0	0	0
11:00 - 12:00	8	62	0	0	46	3	0	0	0	2	0	13	0	0	0	0
12:00 - 13:00	12	74	0	0	58	4	0	0	0	4	0	17	0	0	0	0
16:00 - 17:00	24	222	0	0	54	1	0	0	0	3	0	10	0	0	0	0
17:00 - 18:00	37	246	0	0	59	1	0	0	0	2	0	13	0	0	0	0
Total (6-hour peak)	**98**	**672**	**0**	**0**	**464**	**16**	**0**	**0**	**0**	**13**	**0**	**121**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**16**	**112**	**0**	**0**	**77**	**3**	**0**	**0**	**0**	**2**	**0**	**20**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F(X_{v\text{-}p}) L) / K_2] \times C_i$$

W = 1 1 0
Veh Ped
Not Warranted - Vs<75



2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Pine Line**	**Direction (EW or NS)**	**EW**	**Date:**	**Sep 28, 2017**
Side Street (name)	**Sandalwood Drive**	**Direction (EW or NS)**	**NS**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

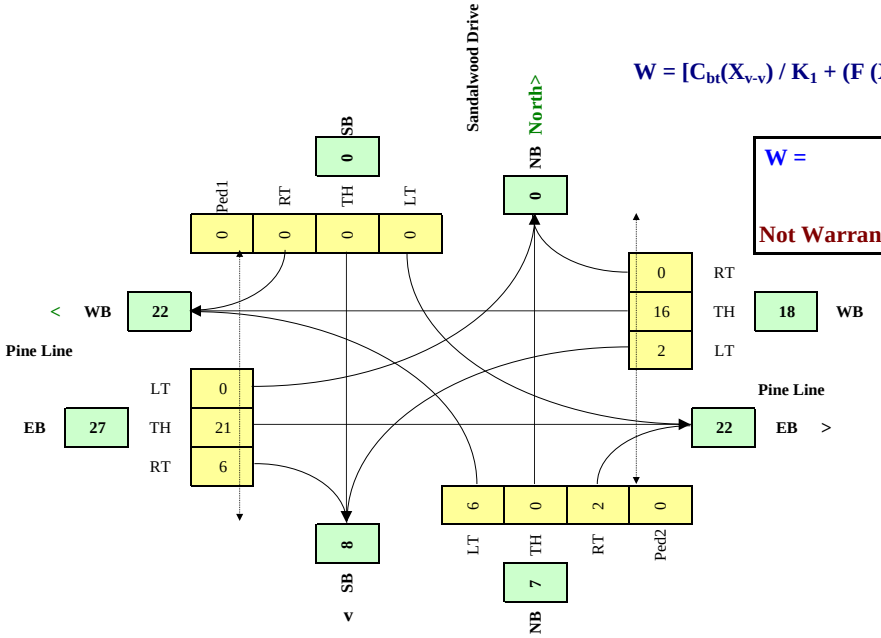
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Pine Line	WB			1				1	
Pine Line	EB			1				1	
Sandalwood Drive	NB			1					
Sandalwood Drive	SB								

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Pine Line	EW	50	2.0%	n	0.0
Sandalwood Drive	NS		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	5	0	0	0	0	0	1	6	0	0	17	7	0	0	0	0
8:00 - 9:00	4	0	3	0	0	0	2	10	0	0	25	7	0	0	0	0
11:00 - 12:00	5	0	0	0	0	0	3	19	0	0	17	5	0	0	0	0
12:00 - 13:00	2	0	4	0	0	0	2	8	0	0	27	3	0	0	0	0
16:00 - 17:00	7	0	2	0	0	0	2	20	0	0	19	7	0	0	0	0
17:00 - 18:00	11	0	1	0	0	0	2	33	0	0	19	8	0	0	0	0
Total (6-hour peak)	**34**	**0**	**10**	**0**	**0**	**0**	**12**	**96**	**0**	**0**	**124**	**37**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**6**	**0**	**2**	**0**	**0**	**0**	**2**	**16**	**0**	**0**	**21**	**6**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F(X_{v\text{-}p}) L) / K_2] \times C_i$$

W =	0	0	0
		Veh	*Ped*

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Snow's Lane**	**Direction (EW or NS)**	**EW**	**Date:**	**Sep 26, 2017**
Side Street (name)	**Ashkay Drive**	**Direction (EW or NS)**	**NS**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Snow's Lane	WB			1				1	
Snow's Lane	EB			1				1	
Ashkay Drive	NB								
Ashkay Drive	SB			1					

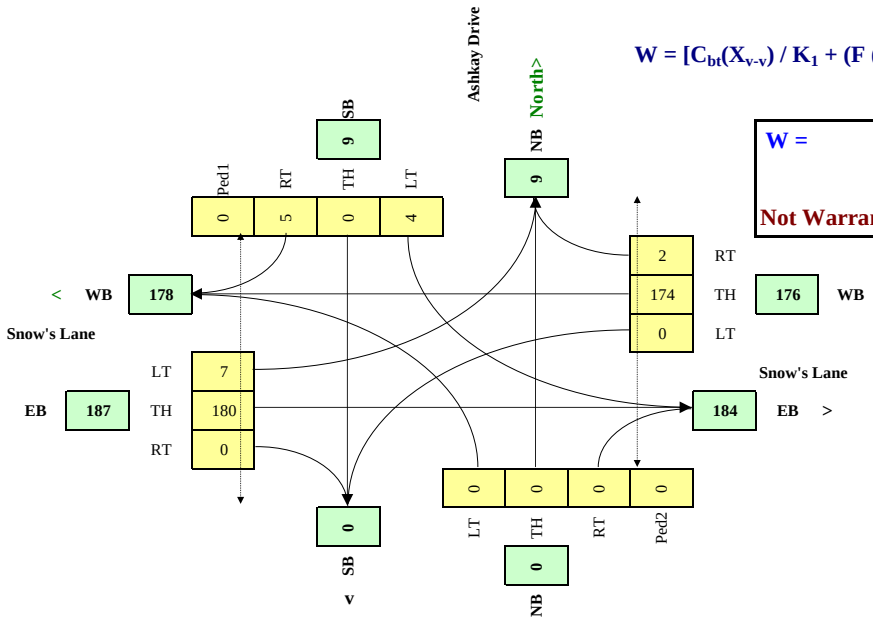
Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Snow's Lane	EW	50	2.0%	n	0.0
Ashkay Drive	NS		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	0	0	0	6	0	3	0	79	2	3	110	0	0	0	0	0
8:00 - 9:00	0	0	0	3	0	7	0	137	1	5	207	0	0	0	0	0
11:00 - 12:00	0	0	0	2	0	2	0	151	2	4	157	0	0	0	0	0
12:00 - 13:00	0	0	0	6	0	5	0	201	4	4	204	0	0	0	0	0
16:00 - 17:00	0	0	0	4	0	5	0	227	1	8	201	0	0	0	0	0
17:00 - 18:00	0	0	0	4	0	6	0	247	4	15	201	0	0	0	0	0
Total (6-hour peak)	**0**	**0**	**0**	**25**	**0**	**28**	**0**	**1,042**	**14**	**39**	**1,080**	**0**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**0**	**0**	**0**	**4**	**0**	**5**	**0**	**174**	**2**	**7**	**180**	**0**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$



W =	**2**	**2**	**0**
		Veh	***Ped***

Not Warranted - Vs<75

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Future 2022**
Side Street (name)	**Cadigan's Road**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT +LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB			1				1	
Logy Bay Road	SB			1				1	
Cadigan's Road	WB			1					
Cadigan's Road	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Cadigan's Road	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1** **NS**	**Ped2** **NS**	**Ped3** **EW**	**Ped4** **EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	4	91	46	8	303	2	98	2	13	2	2	10	0	0	0	0
8:00 - 9:00	5	122	61	10	409	2	132	2	17	2	2	13	0	0	0	0
11:00 - 12:00	5	125	60	4	112	2	73	2	9	3	0	4	0	0	0	0
12:00 - 13:00	3	166	81	5	117	5	80	0	16	0	2	5	0	0	0	0
16:00 - 17:00	17	464	112	6	149	3	83	2	8	5	2	9	0	0	0	0
17:00 - 18:00	18	501	120	6	160	3	89	2	8	5	2	9	0	0	0	0
Total (6-hour peak)	**52**	**1,469**	**480**	**39**	**1,250**	**17**	**555**	**10**	**71**	**17**	**10**	**50**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**9**	**245**	**80**	**7**	**208**	**3**	**93**	**2**	**12**	**3**	**2**	**8**	**0**	**0**	**0**	**0**

Existing

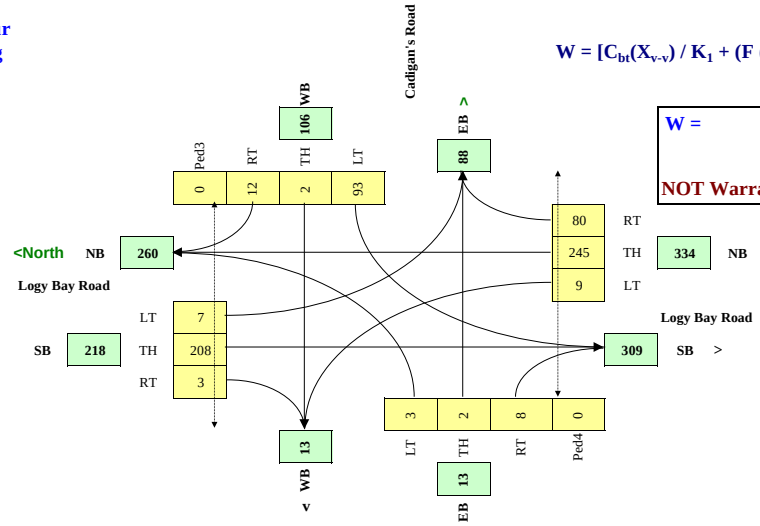
438	**0.739865**
592	
376	**0.828194**
454	
676	**0.926027**
730	

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	**37**	**37**	**0**
		Veh	***Ped***

NOT Warranted



2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Future 2022**
Side Street (name)	**Marine Drive**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Exd LT	Th & LT	Through or Th+RT+LT	Th & RT	Exd RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1			1			1	
Logy Bay Road	SB	1			1			1	
Marine Drive	WB			1					
Marine Drive	EB								

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Marine Drive	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	190	131	21	5	351	96	21	10	5	0	0	0	0	0	0	0
8:00 - 9:00	265	182	29	6	490	133	28	13	6	0	0	0	0	0	0	0
11:00 - 12:00	197	199	37	13	211	45	15	13	8	0	0	0	0	0	0	0
12:00 - 13:00	269	294	50	16	243	53	23	17	9	0	0	0	0	0	0	0
16:00 - 17:00	336	678	70	14	232	68	20	23	12	0	0	0	0	0	0	0
17:00 - 18:00	303	611	64	13	210	62	19	21	11	0	0	0	0	0	0	0
Total (6-hour peak)	**1,560**	**2,095**	**271**	**67**	**1,737**	**457**	**126**	**97**	**51**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**260**	**349**	**45**	**11**	**290**	**76**	**21**	**16**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

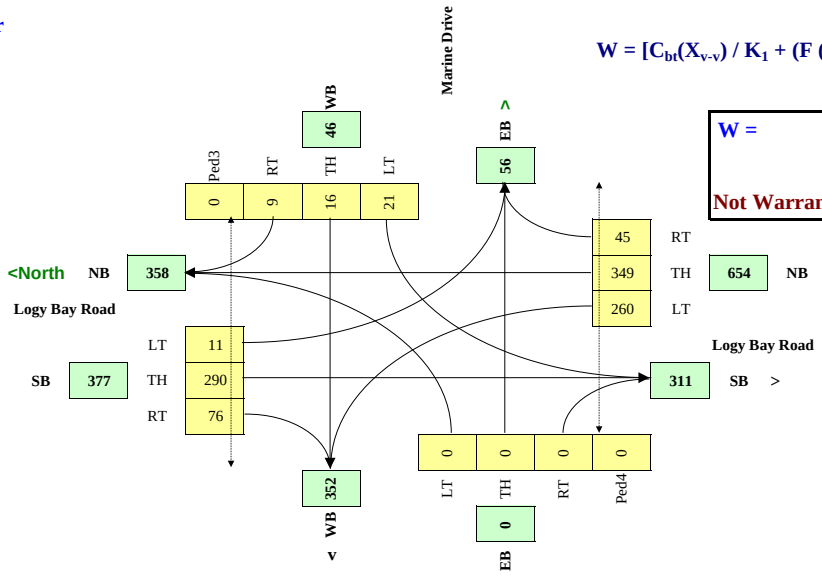
Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W = **89** **89** **0**

Veh ***Ped***

Not Warranted - Vs<75



2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Future 2022**
Side Street (name)	**Snow's Lane**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT +LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1			1			1	
Logy Bay Road	SB				1			1	
Snow's Lane	WB								
Snow's Lane	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	3.0%	n	0.0
Snow's Lane	EW		3.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1** **NS**	**Ped2** **NS**	**Ped3** **EW**	**Ped4** **EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	41	84	0	0	283	67	0	0	0	25	0	133	0	0	0	0
8:00 - 9:00	60	122	0	0	415	98	0	0	0	36	0	194	0	0	0	0
11:00 - 12:00	85	87	0	0	121	75	0	0	0	60	0	109	0	0	0	0
12:00 - 13:00	124	135	0	0	134	88	0	0	0	78	0	137	0	0	0	0
16:00 - 17:00	212	491	0	0	205	65	0	0	0	121	0	119	0	0	0	0
17:00 - 18:00	198	459	0	0	192	61	0	0	0	113	0	112	0	0	0	0
Total (6-hour peak)	**720**	**1,378**	**0**	**0**	**1,350**	**454**	**0**	**0**	**0**	**433**	**0**	**804**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**120**	**230**	**0**	**0**	**225**	**76**	**0**	**0**	**0**	**72**	**0**	**134**	**0**	**0**	**0**	**0**

Existing

505 **0.681511**

741

513

665

918

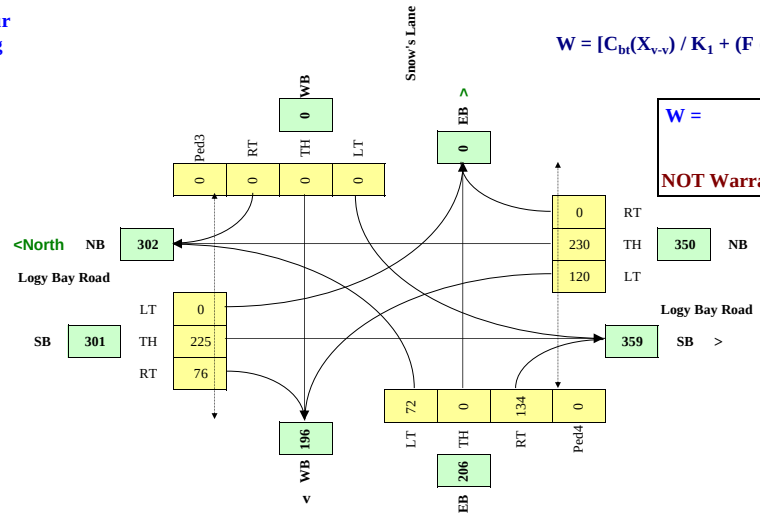
857 **0.933551**

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\ (X_{v\text{-}p})\ L) / K_2] \times C_i$$

W =	**58**	**58**	**0**
		Veh	***Ped***

NOT Warranted



2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Future 2027**
Side Street (name)	**Cadigan's Road**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

Lane Configuration		Excl LT	Th & LT	Through or Th+RT +LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB			1				1	
Logy Bay Road	SB			1				1	
Cadigan's Road	WB			1					
Cadigan's Road	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Cadigan's Road	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1** **NS**	**Ped2** **NS**	**Ped3** **EW**	**Ped4** **EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	12	101	47	8	286	2	102	2	14	2	2	70	0	0	0	0
8:00 - 9:00	15	136	63	10	386	2	137	2	18	2	2	94	0	0	0	0
11:00 - 12:00	5	130	62	4	116	2	76	2	9	3	0	4	0	0	0	0
12:00 - 13:00	3	173	84	5	122	5	83	0	17	0	2	5	0	0	0	0
16:00 - 17:00	46	510	116	6	131	3	87	2	8	5	2	54	0	0	0	0
17:00 - 18:00	49	550	125	6	141	3	93	2	8	5	2	58	0	0	0	0
Total (6-hour peak)	**130**	**1,600**	**497**	**39**	**1,182**	**17**	**578**	**10**	**74**	**17**	**10**	**285**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**22**	**267**	**83**	**7**	**197**	**3**	**96**	**2**	**12**	**3**	**2**	**48**	**0**	**0**	**0**	**0**

Existing

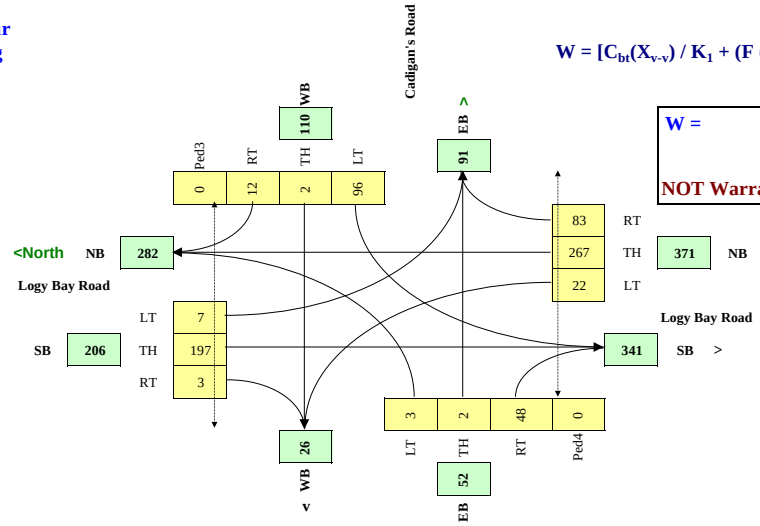
438	**0.739865**
592	
376	**0.828194**
454	
676	**0.926027**
730	

Average 6-hour Peak Turning Movements

$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	**46**	**46**	**0**
		Veh	***Ped***

NOT Warranted



2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Future 2027**
Side Street (name)	**Marine Drive**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

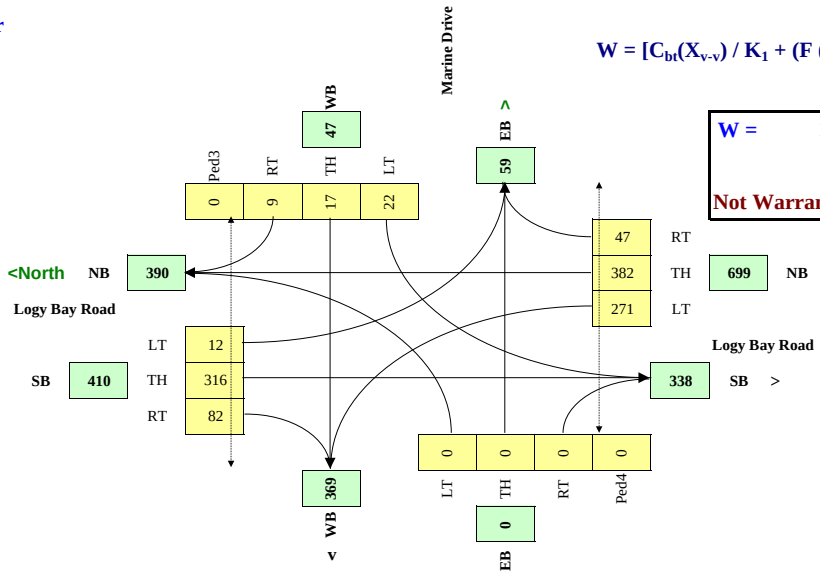
Lane Configuration		Exd LT	Th & LT	Through or Th+RT+LT	Th & RT	Exd RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1			1			1	
Logy Bay Road	SB	1			1			1	
Marine Drive	WB			1					
Marine Drive	EB								

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	2.0%	n	0.0
Marine Drive	EW		2.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	198	148	22	5	389	104	21	10	5	0	0	0	0	0	0	0
8:00 - 9:00	276	206	30	6	542	144	29	13	6	0	0	0	0	0	0	0
11:00 - 12:00	205	207	38	13	219	47	16	13	8	0	0	0	0	0	0	0
12:00 - 13:00	280	306	52	17	253	55	24	18	9	0	0	0	0	0	0	0
16:00 - 17:00	349	749	73	15	260	75	21	24	12	0	0	0	0	0	0	0
17:00 - 18:00	315	675	66	14	235	68	19	22	11	0	0	0	0	0	0	0
Total (6-hour peak)	**1,623**	**2,291**	**281**	**70**	**1,898**	**493**	**130**	**100**	**51**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**271**	**382**	**47**	**12**	**316**	**82**	**22**	**17**	**9**	**0**	**0**	**0**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	101	101	0
		Veh	*Ped*

Not Warranted - Vs<75

Appendix H

Turning Lane Warrants

MTO Left Turn Lane Warrants

Logy Bay Road & Marine Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	50	50	50
Advancing Traffic Volumes	431	552	997	269
Opposing Traffic Volumes	552	431	269	997
Left Turn Traffic Volume	259	4	322	13
Percentage Left Turning Volume	60%	1%	32%	5%
Warranted	Yes	No	Yes	Yes
Storage Lane (m)	30	15	55	15

Marine Drive & Cadigan's Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	23	-	47	-
Opposing Traffic Volumes	88	-	79	-
Left Turn Traffic Volume	17	-	18	-
Percentage Left Turning Volume	74%	-	38%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

Logy Bay Road & Snow's Lane	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	148	-	570	-
Opposing Traffic Volumes	440	-	225	-
Left Turn Traffic Volume	57	-	203	-
Percentage Left Turning Volume	39%	-	36%	-
Warranted	No	-	Yes	-
Storage Lane (m)	n/a	-	25	-

Marine Drive & Lower Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	-	50	-	50
Advancing Traffic Volumes	-	18	-	38
Opposing Traffic Volumes	-	33	-	27
Left Turn Traffic Volume	-	7	-	9
Percentage Left Turning Volume	-	39%	-	24%
Warranted	-	No	-	No
Storage Lane (m)	-	n/a	-	n/a

Logy Bay Road & Clover Dale Close	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	98	-	338	-
Opposing Traffic Volumes	354	-	131	-
Left Turn Traffic Volume	1	-	5	-
Percentage Left Turning Volume	1%	-	1%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

Marine Drive & Outer Cove Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	-	50	-	50
Advancing Traffic Volumes	-	13	-	50
Opposing Traffic Volumes	-	183	-	78
Left Turn Traffic Volume	-	1	-	4
Percentage Left Turning Volume	-	8%	-	8%
Warranted	-	No	-	No
Storage Lane (m)	-	n/a	-	n/a

Logy Bay Road & Cadigan's Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	50	50	50
Advancing Traffic Volumes	161	361	596	133
Opposing Traffic Volumes	361	161	133	596
Left Turn Traffic Volume	1	9	3	5
Percentage Left Turning Volume	1%	2%	1%	4%
Warranted	No	No	No	No
Storage Lane (m)	n/a	n/a	n/a	n/a

Marine Drive & Middle Cove Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	71	-	47	-
Opposing Traffic Volumes	38	-	207	-
Left Turn Traffic Volume	3	-	3	-
Percentage Left Turning Volume	4%	-	6%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

Logy Bay Road & Outer Cove/Lower Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	WB	NB	WB
Design Speed (km/hr)	-	50	-	50
Advancing Traffic Volumes	-	255	-	81
Opposing Traffic Volumes	-	114	-	458
Left Turn Traffic Volume	-	4	-	1
Percentage Left Turning Volume	-	2%	-	1%
Warranted	-	No	-	No
Storage Lane (m)	-	n/a	-	n/a

Pine Line & Sandalwood Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	-	50	-	50
Advancing Traffic Volumes	-	12	-	35
Opposing Traffic Volumes	-	37	-	27
Left Turn Traffic Volume	-	1	-	2
Percentage Left Turning Volume	-	8%	-	6%
Warranted	-	No	-	No
Storage Lane (m)	-	n/a	-	n/a

Outer Cove Road & St. Francis Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	57	-	356	-
Opposing Traffic Volumes	174	-	57	-
Left Turn Traffic Volume	10	-	41	-
Percentage Left Turning Volume	18%	-	12%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

Snow's Lane & Ashkay Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	215	-	218	-
Opposing Traffic Volumes	148	-	265	-
Left Turn Traffic Volume	6	-	12	-
Percentage Left Turning Volume	3%	-	6%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

Outer Cove Road & Big Meadow Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	40	-	198	-
Opposing Traffic Volumes	188	-	60	-
Left Turn Traffic Volume	5	-	10	-
Percentage Left Turning Volume	13%	-	5%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

Outer Cove Road & Pine Line	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	29	-	175	-
Opposing Traffic Volumes	137	-	40	-
Left Turn Traffic Volume	11	-	34	-
Percentage Left Turning Volume	38%	-	19%	-
Warranted	No	-	No	-
Storage Lane (m)	n/a	-	n/a	-

ODOT Right Turn Lane Warrants

Logy Bay Road & Marine Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	50	50	50
Approach Volume	172	548	674	256
Right Turn Volume	26	113	67	57
Warranted	No	Yes	Yes	No

Marine Drive & Cadigan's Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	-	50	-	50
Advancing Traffic Volumes	-	88	-	79
Opposing Traffic Volumes	-	67	-	68
Warranted	-	No	-	No

Logy Bay Road & Snow's Lane	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	440	-	225
Right Turn Volume	-	91	-	59
Warranted	-	Yes	-	No

Marine Drive & Lower Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	50	-	50	-
Advancing Traffic Volumes	33	-	27	-
Opposing Traffic Volumes	12	-	5	-
Warranted	No	-	No	-

Logy Bay Road & Clover Dale Close	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	354	-	131
Right Turn Volume	-	0	-	1
Warranted	-	No	-	No

Marine Drive & Outer Cove Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	50	-	50	-
Approach Volume	183	-	78	-
Right Turn Volume	154	-	55	-
Warranted	Yes	-	No	-

Logy Bay Road & Cadigan's Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	50	50	50	50
Approach Volume	161	361	596	133
Right Turn Volume	56	0	115	2
Warranted	No	No	Yes	No

Marine Drive & Middle Cove Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	38	-	207
Right Turn Volume	-	21	-	141
Warranted	-	No	-	Yes

Logy Bay Road & Outer Cove/Lower Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	WB	NB	WB
Design Speed (km/hr)	50	-	50	-
Approach Volume	114	-	457	-
Right Turn Volume	28	-	87	-
Warranted	No	-	Yes	-

Pine Line & Sandalwood Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	50	-	50	-
Approach Volume	37	-	27	-
Right Turn Volume	7	-	8	-
Warranted	No	-	No	-

Outer Cove Road & St. Francis Road	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	174	-	57
Right Turn Volume	-	5	-	1
Warranted	-	No	-	No

Snow's Lane & Ashkay Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	EB	WB	EB	WB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	148	-	265
Right Turn Volume	-	2	-	4
Warranted	-	No	-	No

Outer Cove Road & Big Meadow Drive	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	188	-	60
Right Turn Volume	-	2	-	3
Warranted	-	No	-	No

Outer Cove Road & Pine Line	AM Peak Hour		PM Peak Hour	
Direction of Travel	NB	SB	NB	SB
Design Speed (km/hr)	-	50	-	50
Approach Volume	-	137	-	40
Right Turn Volume	-	3	-	2
Warranted	-	No	-	No

Appendix I

Arcady Reports

Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.4.487 [15039,24/03/2014]

For sales and distribution information, program advice and maintenance, contact TRL:
Tel: +44 (0)1344 770758 email: software@trl.co.uk Web: http://www.trlsoftware.co.uk

Filename: 172055_Roundabout Analysis-Additional Scenarios.arc8
Path: Z:\Harbourside Transportation Consultants\Projects\172055 LBMCOC Transportation Study\Project Files\02 Analysis\05 Arcady
Report generation date: 20/04/2018 2:19:42 PM

Summary of intersection performance

	AM							PM						
	Queue (PCE)	95% Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Queue (PCE)	95% Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS
	A1 - Future 2022													
Snow's Lane	0.37	~1	5.30	0.27	A	5.50	A	0.33	~1	4.54	0.25	A	8.19	A
Logy Bay Road - Northbound	0.21	~1	3.75	0.17	A			2.27	4.00	10.76	0.70	B		
Logy Bay Road - Southbound	0.97	~1	6.21	0.49	A			0.39	~1	4.76	0.28	A		

	A1 - Future 2027														
Snow's Lane	0.42	~1	5.68	0.30	A	6.08	A	0.48	1.00	5.92	0.32	A	11.08	B
Logy Bay Road - Northbound	0.24	~1	3.87	0.20	A			3.37	10.00	14.66	0.78	B		
Logy Bay Road - Southbound	1.23	1.00	7.04	0.55	A			1.50	1.00	8.63	0.60	A		

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages.
"D1 - Future 2022, AM " model duration: 8:00 AM - 9:30 AM
"D2 - Future 2022, PM" model duration: 5:00 PM - 6:30 PM
"D3 - Future 2027, AM" model duration: 8:00 AM - 9:30 AM
"D4 - Future 2027, PM" model duration: 5:00 PM - 6:30 PM

Run using Junctions 8.0.4.487 at 20/04/2018 2:19:40 PM

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	V/C Ratio Threshold	Average Delay Threshold (s)	Queue Threshold (PCE)
7.00	✓		N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCE	PCE	perHour	s	-Min	perMin

(Default Analysis Set) - Future 2022, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Future 2022, AM	Future 2022	AM		ONE HOUR	08:00	09:30	90	15		

Intersections

Intersection	Name	Intersection Type	Leg Order	Grade Separated	Large Roundabout	Intersection Delay (s)	Intersection LOS
1	(untitled)	Roundabout	1,2,3			5.50	A

Intersection Network Options

Driving Side	Lighting
Right	Normal/unknown

Legs

Name	Leg	Name	Description
Snow's Lane	1	Snow's Lane	
Logy Bay Road - Northbound	2	Logy Bay Road - Northbound	
Logy Bay Road - Southbound	3	Logy Bay Road - Southbound	

Capacity Options

Name	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)
Snow's Lane	0.00	99999.00
Logy Bay Road - Northbound	0.00	99999.00
Logy Bay Road - Southbound	0.00	99999.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Snow's Lane	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Northbound	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Southbound	3.00	4.25	8.00	30.00	40.00	30.00	

Pedestrian Crossings

Name	Crossing Type
Snow's Lane	Unsignalled Pedestrian Crossing
Logy Bay Road - Northbound	Unsignalled Pedestrian Crossing
Logy Bay Road - Southbound	Unsignalled Pedestrian Crossing

Unsignalled Pedestrian Crossing Crossings

Name	Space between crossing and intersection entry (PCE)	Vehicles queueing on exit (PCE)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Snow's Lane	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Northbound	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Southbound	0.00	0.00		Distance	0.00	0.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCE/hr)	Final Slope	Final Intercept (PCE/hr)
Snow's Lane		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Northbound		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Southbound		(calculated)	(calculated)	0.543	1180.432

The slope and intercept shown above include any corrections and adjustments.

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCE Factor for a Truck (PCE)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	Truck Percentages	2.00				✓	✓

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCE/hr)	Flow Scaling Factor (%)
Snow's Lane	ONE HOUR	✓	230.00	100.000
Logy Bay Road - Northbound	ONE HOUR	✓	182.00	100.000
Logy Bay Road - Southbound	ONE HOUR	✓	513.00	100.000

General Flows Data

Name	Profile Type	Average Pedestrian Flow (Ped/hr)
Snow's Lane	ONE HOUR	0.00
Logy Bay Road - Northbound	ONE HOUR	0.00
Logy Bay Road - Southbound	ONE HOUR	0.00

Direct Flows Data

Time Segment	Name	Direct Demand Entry Flow (PCE/hr)	DirectDemandEntryFlowInPCE (PCE/hr)	Direct Demand Exit Flow (PCE/hr)	Direct Demand Pedestrian Flow (Ped/hr)
08:00-08:15	Snow's Lane	173.16	173.16		0.00
08:15-08:30	Snow's Lane	206.77	206.77		0.00
08:30-08:45	Snow's Lane	253.23	253.23		0.00
08:45-09:00	Snow's Lane	253.23	253.23		0.00
09:00-09:15	Snow's Lane	206.77	206.77		0.00
09:15-09:30	Snow's Lane	173.16	173.16		0.00
08:00-08:15	Logy Bay Road - Northbound	137.02	137.02		0.00
08:15-08:30	Logy Bay Road - Northbound	163.61	163.61		0.00
08:30-08:45	Logy Bay Road - Northbound	200.39	200.39		0.00
08:45-09:00	Logy Bay Road - Northbound	200.39	200.39		0.00
09:00-09:15	Logy Bay Road - Northbound	163.61	163.61		0.00
09:15-09:30	Logy Bay Road - Northbound	137.02	137.02		0.00
08:00-08:15	Logy Bay Road - Southbound	386.21	386.21		0.00

08:15-08:30	**Logy Bay Road - Southbound**	461.18	461.18		0.00
08:30-08:45	**Logy Bay Road - Southbound**	564.82	564.82		0.00
08:45-09:00	**Logy Bay Road - Southbound**	564.82	564.82		0.00
09:00-09:15	**Logy Bay Road - Southbound**	461.18	461.18		0.00
09:15-09:30	**Logy Bay Road - Southbound**	386.21	386.21		0.00

Turning Counts / Proportions (PCE/hr) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.000	194.000	36.000
	Logy Bay Road - Northbound	60.000	0.000	122.000
	Logy Bay Road - Southbound	98.000	415.000	0.000

Turning Proportions (PCE) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.00	0.84	0.16
	Logy Bay Road - Northbound	0.33	0.00	0.67
	Logy Bay Road - Southbound	0.19	0.81	0.00

Average PCE Per Vehicle - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	1.000	1.000	1.000
	Logy Bay Road - Northbound	1.000	1.000	1.000
	Logy Bay Road - Southbound	1.000	1.000	1.000

Truck Percentages - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.0	0.0	0.0
	Logy Bay Road - Northbound	0.0	0.0	0.0
	Logy Bay Road - Southbound	0.0	0.0	0.0

Results Summary for whole modelled period

Name	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
Snow's Lane	0.27	5.30	0.37	~1	A
Logy Bay Road - Northbound	0.17	3.75	0.21	~1	A
Logy Bay Road - Southbound	0.49	6.21	0.97	~1	A

(Default Analysis Set) - Future 2022, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Future 2022, PM	Future 2022	PM		ONE HOUR	17:00	18:30	90	15		

Intersections

Intersection	Name	Intersection Type	Leg Order	Grade Separated	Large Roundabout	Intersection Delay (s)	Intersection LOS
1	(untitled)	Roundabout	1,2,3			8.19	A

Intersection Network Options

Driving Side	Lighting
Right	Normal/unknown

Legs

Name	Leg	Name	Description
Snow's Lane	1	Snow's Lane	
Logy Bay Road - Northbound	2	Logy Bay Road - Northbound	
Logy Bay Road - Southbound	3	Logy Bay Road - Southbound	

Capacity Options

Name	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)
Snow's Lane	0.00	99999.00
Logy Bay Road - Northbound	0.00	99999.00
Logy Bay Road - Southbound	0.00	99999.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Snow's Lane	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Northbound	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Southbound	3.00	4.25	8.00	30.00	40.00	30.00	

Pedestrian Crossings

Name	Crossing Type
Snow's Lane	Unsignalled Pedestrian Crossing
Logy Bay Road - Northbound	Unsignalled Pedestrian Crossing
Logy Bay Road - Southbound	Unsignalled Pedestrian Crossing

Unsignalled Pedestrian Crossing Crossings

Name	Space between crossing and intersection entry (PCE)	Vehicles queueing on exit (PCE)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Snow's Lane	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Northbound	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Southbound	0.00	0.00		Distance	0.00	0.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCE/hr)	Final Slope	Final Intercept (PCE/hr)
Snow's Lane		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Northbound		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Southbound		(calculated)	(calculated)	0.543	1180.432

The slope and intercept shown above include any corrections and adjustments.

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCE Factor for a Truck (PCE)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	Truck Percentages	2.00				✓	✓

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCE/hr)	Flow Scaling Factor (%)
Snow's Lane	ONE HOUR	✓	240.00	100.000
Logy Bay Road - Northbound	ONE HOUR	✓	703.00	100.000
Logy Bay Road - Southbound	ONE HOUR	✓	270.00	100.000

General Flows Data

Name	Profile Type	Average Pedestrian Flow (Ped/hr)
Snow's Lane	ONE HOUR	0.00
Logy Bay Road - Northbound	ONE HOUR	0.00
Logy Bay Road - Southbound	ONE HOUR	0.00

Direct Flows Data

Time Segment	Name	Direct Demand Entry Flow (PCE/hr)	DirectDemandEntryFlowInPCE (PCE/hr)	Direct Demand Exit Flow (PCE/hr)	Direct Demand Pedestrian Flow (Ped/hr)
17:00-17:15	**Snow's Lane**	180.68	180.68		0.00
17:15-17:30	**Snow's Lane**	215.76	215.76		0.00
17:30-17:45	**Snow's Lane**	264.24	264.24		0.00
17:45-18:00	**Snow's Lane**	264.24	264.24		0.00
18:00-18:15	**Snow's Lane**	215.76	215.76		0.00

18:15-18:30	**Snow's Lane**	180.68	180.68		0.00
17:00-17:15	**Logy Bay Road - Northbound**	529.26	529.26		0.00
17:15-17:30	**Logy Bay Road - Northbound**	631.98	631.98		0.00
17:30-17:45	**Logy Bay Road - Northbound**	774.02	774.02		0.00
17:45-18:00	**Logy Bay Road - Northbound**	774.02	774.02		0.00
18:00-18:15	**Logy Bay Road - Northbound**	631.98	631.98		0.00
18:15-18:30	**Logy Bay Road - Northbound**	529.26	529.26		0.00
17:00-17:15	**Logy Bay Road - Southbound**	203.27	203.27		0.00
17:15-17:30	**Logy Bay Road - Southbound**	242.72	242.72		0.00
17:30-17:45	**Logy Bay Road - Southbound**	297.28	297.28		0.00
17:45-18:00	**Logy Bay Road - Southbound**	297.28	297.28		0.00
18:00-18:15	**Logy Bay Road - Southbound**	242.72	242.72		0.00
18:15-18:30	**Logy Bay Road - Southbound**	203.27	203.27		0.00

Turning Proportions

Turning Counts / Proportions (PCE/hr) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.000	119.000	121.000
	Logy Bay Road - Northbound	212.000	0.000	491.000
	Logy Bay Road - Southbound	65.000	205.000	0.000

Turning Proportions (PCE) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.00	0.50	0.50
	Logy Bay Road - Northbound	0.30	0.00	0.70
	Logy Bay Road - Southbound	0.24	0.76	0.00

Vehicle Mix

Average PCE Per Vehicle - (untitled) (for whole period)

		To		
From		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound

	Snow's Lane	1.000	1.000	1.000
	Logy Bay Road - Northbound	1.000	1.000	1.000
	Logy Bay Road - Southbound	1.000	1.000	1.000

Truck Percentages - (untitled) (for whole period)

		To		
		Snow's Lane	**Logy Bay Road - Northbound**	**Logy Bay Road - Southbound**
From	**Snow's Lane**	0.0	0.0	0.0
	Logy Bay Road - Northbound	0.0	0.0	0.0
	Logy Bay Road - Southbound	0.0	0.0	0.0

Results Summary for whole modelled period

Name	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
Snow's Lane	0.25	4.54	0.33	~1	A
Logy Bay Road - Northbound	0.70	10.76	2.27	4.00	B
Logy Bay Road - Southbound	0.28	4.76	0.39	~1	A

(Default Analysis Set) - Future 2027, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Future 2027, AM	Future 2027	AM		ONE HOUR	08:00	09:30	90	15		

Intersections

Intersection	Name	Intersection Type	Leg Order	Grade Separated	Large Roundabout	Intersection Delay (s)	Intersection LOS
1	(untitled)	Roundabout	1,2,3			6.08	A

Intersection Network Options

Driving Side	Lighting
Right	Normal/unknown

Legs

Name	Leg	Name	Description
Snow's Lane	1	Snow's Lane	
Logy Bay Road - Northbound	2	Logy Bay Road - Northbound	
Logy Bay Road - Southbound	3	Logy Bay Road - Southbound	

Capacity Options

Name	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)
Snow's Lane	0.00	99999.00
Logy Bay Road - Northbound	0.00	99999.00
Logy Bay Road - Southbound	0.00	99999.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Snow's Lane	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Northbound	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Southbound	3.00	4.25	8.00	30.00	40.00	30.00	

Pedestrian Crossings

Name	Crossing Type
Snow's Lane	Unsignalled Pedestrian Crossing
Logy Bay Road - Northbound	Unsignalled Pedestrian Crossing
Logy Bay Road - Southbound	Unsignalled Pedestrian Crossing

Unsignalled Pedestrian Crossing Crossings

Name	Space between crossing and intersection entry (PCE)	Vehicles queueing on exit (PCE)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Snow's Lane	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Northbound	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Southbound	0.00	0.00		Distance	0.00	0.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCE/hr)	Final Slope	Final Intercept (PCE/hr)
Snow's Lane		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Northbound		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Southbound		(calculated)	(calculated)	0.543	1180.432

The slope and intercept shown above include any corrections and adjustments.

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCE Factor for a Truck (PCE)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	Truck Percentages	2.00				✓	✓

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCE/hr)	Flow Scaling Factor (%)
Snow's Lane	ONE HOUR	✓	241.00	100.000
Logy Bay Road - Northbound	ONE HOUR	✓	205.00	100.000
Logy Bay Road - Southbound	ONE HOUR	✓	574.00	100.000

General Flows Data

Name	Profile Type	Average Pedestrian Flow (Ped/hr)
Snow's Lane	ONE HOUR	0.00
Logy Bay Road - Northbound	ONE HOUR	0.00
Logy Bay Road - Southbound	ONE HOUR	0.00

Direct Flows Data

Time Segment	Name	Direct Demand Entry Flow (PCE/hr)	DirectDemandEntryFlowInPCE (PCE/hr)	Direct Demand Exit Flow (PCE/hr)	Direct Demand Pedestrian Flow (Ped/hr)
08:00-08:15	**Snow's Lane**	181.44	181.44		0.00
08:15-08:30	**Snow's Lane**	216.65	216.65		0.00
08:30-08:45	**Snow's Lane**	265.35	265.35		0.00
08:45-09:00	**Snow's Lane**	265.35	265.35		0.00
09:00-09:15	**Snow's Lane**	216.65	216.65		0.00

09:15-09:30	**Snow's Lane**	181.44	181.44		0.00
08:00-08:15	**Logy Bay Road - Northbound**	154.33	154.33		0.00
08:15-08:30	**Logy Bay Road - Northbound**	184.29	184.29		0.00
08:30-08:45	**Logy Bay Road - Northbound**	225.71	225.71		0.00
08:45-09:00	**Logy Bay Road - Northbound**	225.71	225.71		0.00
09:00-09:15	**Logy Bay Road - Northbound**	184.29	184.29		0.00
09:15-09:30	**Logy Bay Road - Northbound**	154.33	154.33		0.00
08:00-08:15	**Logy Bay Road - Southbound**	432.14	432.14		0.00
08:15-08:30	**Logy Bay Road - Southbound**	516.01	516.01		0.00
08:30-08:45	**Logy Bay Road - Southbound**	631.99	631.99		0.00
08:45-09:00	**Logy Bay Road - Southbound**	631.99	631.99		0.00
09:00-09:15	**Logy Bay Road - Southbound**	516.01	516.01		0.00
09:15-09:30	**Logy Bay Road - Southbound**	432.14	432.14		0.00

Turning Counts / Proportions (PCE/hr) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.000	201.000	40.000
	Logy Bay Road - Northbound	62.000	0.000	143.000
	Logy Bay Road - Southbound	104.000	470.000	0.000

Turning Proportions (PCE) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.00	0.83	0.17
	Logy Bay Road - Northbound	0.30	0.00	0.70
	Logy Bay Road - Southbound	0.18	0.82	0.00

Average PCE Per Vehicle - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	1.000	1.000	1.000
	Logy Bay Road - Northbound	1.000	1.000	1.000
	Logy Bay Road - Southbound	1.000	1.000	1.000

Truck Percentages - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.0	0.0	0.0
	Logy Bay Road - Northbound	0.0	0.0	0.0
	Logy Bay Road - Southbound	0.0	0.0	0.0

Results Summary for whole modelled period

Name	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
Snow's Lane	0.30	5.68	0.42	~1	A
Logy Bay Road - Northbound	0.20	3.87	0.24	~1	A
Logy Bay Road - Southbound	0.55	7.04	1.23	1.00	A

(Default Analysis Set) - Future 2027, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
Future 2027, PM	Future 2027	PM		ONE HOUR	17:00	18:30	90	15		

Intersections

Intersection	Name	Intersection Type	Leg Order	Grade Separated	Large Roundabout	Intersection Delay (s)	Intersection LOS
1	(untitled)	Roundabout	1,2,3			11.08	B

Intersection Network Options

Driving Side	Lighting
Right	Normal/unknown

Legs

Name	Leg	Name	Description
Snow's Lane	1	Snow's Lane	
Logy Bay Road - Northbound	2	Logy Bay Road - Northbound	
Logy Bay Road - Southbound	3	Logy Bay Road - Southbound	

Capacity Options

Name	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)
Snow's Lane	0.00	99999.00
Logy Bay Road - Northbound	0.00	99999.00
Logy Bay Road - Southbound	0.00	99999.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Snow's Lane	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Northbound	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Southbound	3.00	4.25	8.00	30.00	40.00	30.00	

Pedestrian Crossings

Name	Crossing Type
Snow's Lane	Unsignalled Pedestrian Crossing
Logy Bay Road - Northbound	Unsignalled Pedestrian Crossing
Logy Bay Road - Southbound	Unsignalled Pedestrian Crossing

Unsignalled Pedestrian Crossing Crossings

Name	Space between crossing and intersection entry (PCE)	Vehicles queueing on exit (PCE)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Snow's Lane	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Northbound	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Southbound	0.00	0.00		Distance	0.00	0.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCE/hr)	Final Slope	Final Intercept (PCE/hr)
Snow's Lane		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Northbound		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Southbound		(calculated)	(calculated)	0.543	1180.432

The slope and intercept shown above include any corrections and adjustments.

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCE Factor for a Truck (PCE)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	Truck Percentages	2.00				✓	✓

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCE/hr)	Flow Scaling Factor (%)
Snow's Lane	ONE HOUR	✓	265.00	100.000
Logy Bay Road - Northbound	ONE HOUR	✓	774.00	100.000
Logy Bay Road - Southbound	ONE HOUR	✓	574.00	100.000

General Flows Data

Name	Profile Type	Average Pedestrian Flow (Ped/hr)
Snow's Lane	ONE HOUR	0.00
Logy Bay Road - Northbound	ONE HOUR	0.00
Logy Bay Road - Southbound	ONE HOUR	0.00

Direct Flows Data

Time Segment	Name	Direct Demand Entry Flow (PCE/hr)	DirectDemandEntryFlowInPCE (PCE/hr)	Direct Demand Exit Flow (PCE/hr)	Direct Demand Pedestrian Flow (Ped/hr)
17:00-17:15	**Snow's Lane**	199.51	199.51		0.00
17:15-17:30	**Snow's Lane**	238.23	238.23		0.00
17:30-17:45	**Snow's Lane**	291.77	291.77		0.00
17:45-18:00	**Snow's Lane**	291.77	291.77		0.00
18:00-18:15	**Snow's Lane**	238.23	238.23		0.00

18:15-18:30	**Snow's Lane**	199.51	199.51		0.00
17:00-17:15	**Logy Bay Road - Northbound**	582.71	582.71		0.00
17:15-17:30	**Logy Bay Road - Northbound**	695.81	695.81		0.00
17:30-17:45	**Logy Bay Road - Northbound**	852.19	852.19		0.00
17:45-18:00	**Logy Bay Road - Northbound**	852.19	852.19		0.00
18:00-18:15	**Logy Bay Road - Northbound**	695.81	695.81		0.00
18:15-18:30	**Logy Bay Road - Northbound**	582.71	582.71		0.00
17:00-17:15	**Logy Bay Road - Southbound**	432.14	432.14		0.00
17:15-17:30	**Logy Bay Road - Southbound**	516.01	516.01		0.00
17:30-17:45	**Logy Bay Road - Southbound**	631.99	631.99		0.00
17:45-18:00	**Logy Bay Road - Southbound**	631.99	631.99		0.00
18:00-18:15	**Logy Bay Road - Southbound**	516.01	516.01		0.00
18:15-18:30	**Logy Bay Road - Southbound**	432.14	432.14		0.00

Turning Counts / Proportions (PCE/hr) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.000	124.000	141.000
	Logy Bay Road - Northbound	220.000	0.000	554.000
	Logy Bay Road - Southbound	104.000	470.000	0.000

Turning Proportions (PCE) - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.00	0.47	0.53
	Logy Bay Road - Northbound	0.28	0.00	0.72
	Logy Bay Road - Southbound	0.18	0.82	0.00

Average PCE Per Vehicle - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	1.000	1.000	1.000
	Logy Bay Road - Northbound	1.000	1.000	1.000
	Logy Bay Road - Southbound	1.000	1.000	1.000

Truck Percentages - (untitled) (for whole period)

		To		
		Snow's Lane	Logy Bay Road - Northbound	Logy Bay Road - Southbound
From	Snow's Lane	0.0	0.0	0.0
	Logy Bay Road - Northbound	0.0	0.0	0.0
	Logy Bay Road - Southbound	0.0	0.0	0.0

Results Summary for whole modelled period

Name	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
Snow's Lane	0.32	5.92	0.48	1.00	A
Logy Bay Road - Northbound	0.78	14.66	3.37	10.00	B
Logy Bay Road - Southbound	0.60	8.63	1.50	1.00	A

Appendix J

Roadway Classification List and Map

Logy Bay Middle Cove Outer Cove

172055 LBMCOC Transportation Study
Street Classification

HARBOURSIDE Transportation Consultants

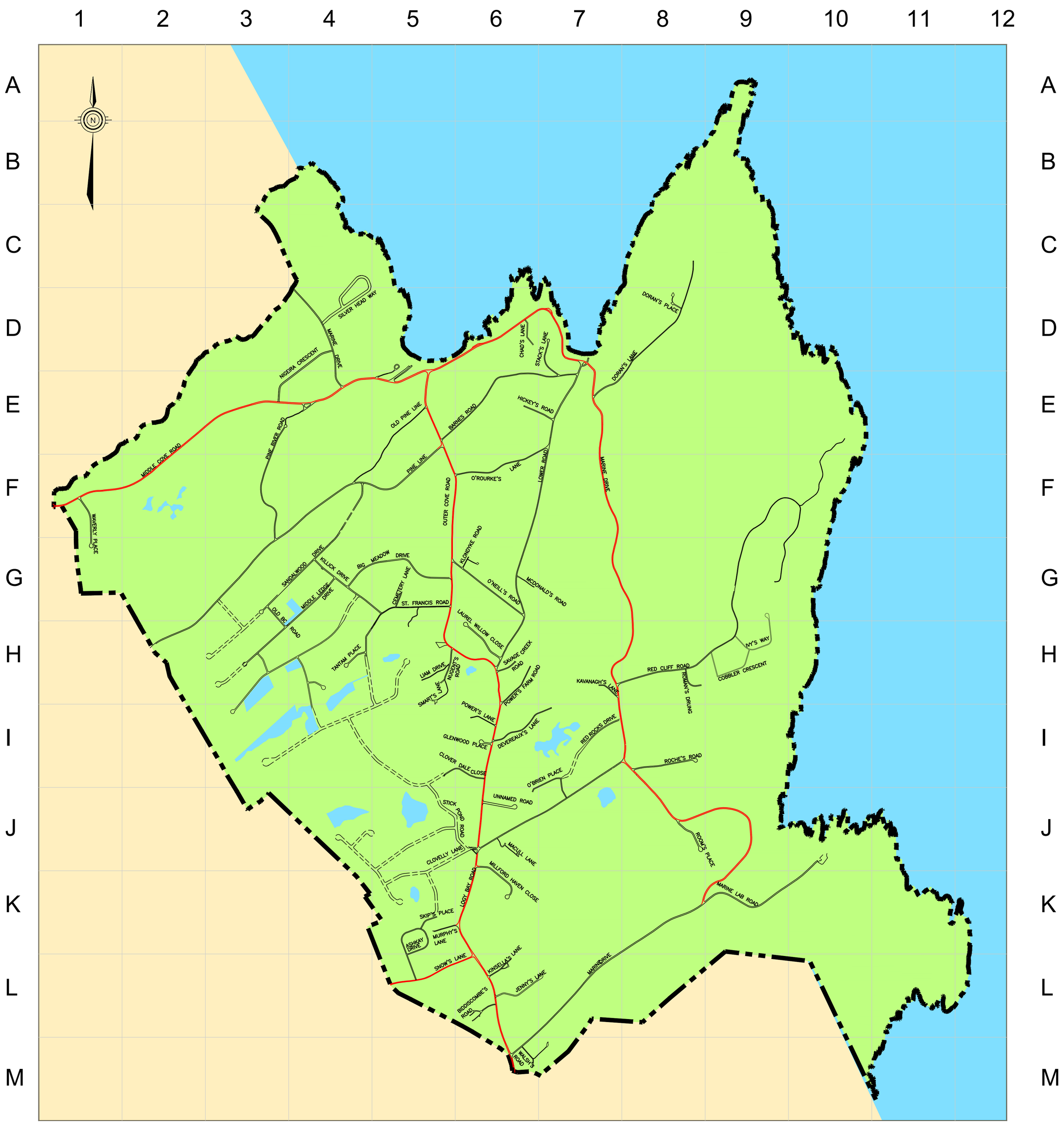
04/05/2018

Street Name	Traffic Service Function	Land Service/Access	Traffic Volume	Flow Characteristics	Date of traffic count	85th Percentile Speed	Speed Limit	Accommodation of Cyclists	Accommodation of Pedestrians	Parking	Right-of-Way	Owner	Street Classification
Ashkay Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Barnes Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Biddiscombe's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Big Meadow Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Cadigan's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Cemetery Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Chad's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Clovelly Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Clover Dale Close	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Cobbler Crescent	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Devereaux's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Doran's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Doran's Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Glenwood Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Hickey's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Ivy's Way	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Jenny's Way	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Kavanagh's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Killick Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Kinsella's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Klondyke Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Laurel Willow Close	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Liam Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Logy Bay Road	Equal traffic & land access	Equal traffic & land access	4,194	Interrupted Flow	27-Sep-17	67 km/h	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Collector
Lower Road	Equal traffic & land access	Equal traffic & land access	513	Interrupted Flow	28-Sep-17	65 km/h	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
MaCull Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Marine Drive	Equal traffic & land access	Equal traffic & land access	887	Interrupted Flow	05-Oct-17	61 km/h	50 km/h	No Facilities	No Facilities	Permitted/Prohibited	-	Province	Collector
Marine Lab Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
McDonald's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Middle Cove Park	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Middle Cove Road	Equal traffic & land access	Equal traffic & land access	1,211	Interrupted Flow	03-Oct-17	62 km/h	50km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Collector
Middle Ledge Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Milford Haven Close	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Murphy's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Nageira Crescent	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	30 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Nugent's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
O'Brien Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Old Bog Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Old Pine Line	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	30 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
O'Neills Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	30 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
O'Rourke's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Outer Cove Road	Equal traffic & land access	Equal traffic & land access	1,635	Interrupted Flow	04-Oct-17	63 km/h	30-50 km/h	No Facilities	No Facilities	Permitted/Prohibited	-	LBMCOC	Collector
Pine Line	Equal traffic & land access	Equal traffic & land access	941	Interrupted Flow	04-Oct-17	69 km/h	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Pine River Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Power's Farm Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Power's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Red Cliff Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Red Rocks Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Roche's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Roman's Drung	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Room's Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Sandalwood Drive	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Savage Creek Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Silver Head Way	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Skip's Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local

172055 LBMCOC Transportation Study
Street Classification

04/05/2018

Street Name	Traffic Service Function	Land Service/Access	Traffic Volume	Flow Characteristics	Date of traffic count	85th Percentile Speed	Speed Limit	Accommodation of Cyclists	Accommodation of Pedestrians	Parking	Right-of-Way	Owner	Street Classification
Smart's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Snow's Lane	Equal traffic & land access	Equal traffic & land access	3,721	Interrupted Flow	27-Sep-17	56 km/h	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Collector
St. Francis Road	Secondary Consideration	Primary Function	239	Interrupted Flow	11-Oct-17	43 km/h	30 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Stack's Lane	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Stick Pond Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Tantam Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Tucamore Heights	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Unnamed Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Walsh's Road	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local
Waverley Place	Secondary Consideration	Primary Function	-	Interrupted Flow	-	-	50 km/h	No Facilities	No Facilities	Permitted	-	LBMCOC	Local



STREET NAME	GRID REFERENCE				
ASHKAY DRIVE	L5	LOWER ROAD	H6	ROCHE'S ROAD	I8
BARNES ROAD	E5	MACULL LANE	J6	ROMAN'S DRUNG	H8
BIDDISCOMBE'S ROAD	L6	MARINE DRIVE	M6	ROOM'S PLACE	J8
BIG MEADOW DRIVE	G4	MARINE LAB ROAD	K8	SANDALWOOD DRIVE	H3
CADIGAN'S ROAD	J6	MCDONALD'S ROAD	G6	SAVAGE CREEK ROAD	H6
CEMETERY LANE	G5	MIDDLE COVE PARK	E5	SILVER HEAD WAY	D4
CHAD'S LANE	D6	MIDDLE COVE ROAD	F1	SKIP'S PLACE	K5
CLOVELLY LANE	J6	MIDDLE LEDGE DRIVE	G4	SMART'S LANE	H5
CLOVER DALE CLOSE	I6	MILFORD HAVEN CLOSE	J6	SNOW'S LANE	L5
COBBLER CRESCENT	E10	MURPHY'S LANE	K6	ST. FRANCIS ROAD	G5
DEVEREAUX'S LANE	I6	NAGEIRA CRESCENT	E3	STACK'S LANE	E7
DORAN'S LANE	E7	NUGENT'S ROAD	H5	STICK POND ROAD	I5
DORAN'S PLACE	D8	O'BRIEN PLACE	J7	TANTAM PLACE	H4
GLENWOOD PLACE	I6	OLD BOG ROAD	G3	TUCAMORE HEIGHTS	E5
HICKEY'S ROAD	E7	OLD PINE LINE	F4	UNNAMED ROAD	J6
IVY'S WAY	H9	O'NEILLS ROAD	G5	WALSH'S ROAD	M6
JENNY'S WAY	L6	O'ROURKE'S LANE	F6	WAVERLEY PLACE	F1
KAVANAGH'S LANE	H7	OUTER COVE ROAD	H6		
KILLICK DRIVE	G4	PINE LINE	H2		
KINSELLA'S LANE	L6	PINE RIVER ROAD	G3		
KLONDYKE ROAD	G6	POWER'S FARM ROAD	G6		
LAUREL WILLOW CLOSE	H6	POWER'S LANE	I6		
LIAM DRIVE	H5	RED CLIFF ROAD	H7		
LOGY BAY ROAD	M6	RED ROCKS DRIVE	I7		

LEGEND:

- BOUNDARY
- COLLECTOR
- LOCAL ROAD
- PROPOSED ROAD

24x36 SCALE : 1:12500

0m 500 1000m

LOGY BAY – MIDDLE COVE – OUTER COVE

ROADWAY CLASSIFICATION MAP

Scale: 1:12500

Date: MAY 2018

HARBOURSIDE Transportation Consultants

Logy Bay Middle Cove Outer Cove

Appendix K

Snow's Lane Pavement Markings and Signage Plans

NOTE:

–NO PAVEMENT MARKINGS PRESENT WITHIN THE LOGY BAY–MIDDLE COVE–OUTER COVE BOUNDARIES OF SNOW'S LANE

Scale	Date	Drawn	Designed	Checked	Approved	Contract
1:1000	MARCH 2018	B. FORBES	B. REINHARD			172055

HARBOURSIDE Transportation Consultants

SNOWS LANE SAFETY ASSESSMENT
LOGY BAY–MIDDLE COVE–
OUTER COVE, NL

EXISTING CONDITIONS

SKETCH No.

CSK - 01

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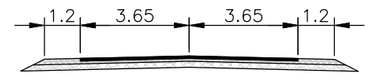
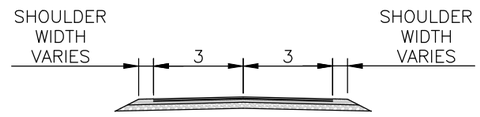


SECTION— PROPOSED SECTION

1:200



SECTION— EXISTING SECTION

1:200

NOTE:

— VEGETATION THAT LIE WITHIN NEW ROAD SHOULDER TO BE REMOVED

EDGE OF PAVEMENT

EDGE OF SHOULDER

VEGETATION TO BE CUT BELOW 1m IN THIS AREA

NEW ASHPHALT

Scale	Date	Drawn	Designed	Checked	Approved	Contract
1:1000	MARCH 2018	B. FORBES	B. REINHARD			172055

HARBOURSIDE Transportation Consultants

SNOWS LANE SAFETY ASSESSMENT
LOGY BAY–MIDDLE COVE–
OUTER COVE, NL

PROPOSED CONDITIONS

SKETCH No.

CSK - 02

Z:\HARBOURSIDE TRANSPORTATION CONSULTANTS\PROJECTS\172055
LBMCOC TRANSPORTATION STUDY\CAD\DRAWINGS\SNOWS LANE

Appendix L

Logy Bay Road & Snow's Lane Intersection – Improvement Options

Suite 306 - Terrace on the Square
8 Rowan Street, PO Box 23169
St. John's, NL, A1B 4J9
Tel: (709) 579.6435 ◆ www.harboursideengineering.ca

17 November 2017

HTC Project: 172055

Town of Logy Bay-Middle Cove-Outer Cove
744 Logy Bay Road
Logy Bay-Middle Cove-Outer Cove, NL
A1K 3B5

T. 709.726.7930 x22 F. 709.726.2178
E. AdeleCarruthers@lbmcoc.ca

ATTENTION: ADELE CARRUTHERS
TOWN CLERK/MANAGER

RE: LOGY BAY ROAD & SNOWS LANE INTERSECTION – IMPROVEMENT OPTIONS

Ms. Carruthers,

Harbourside Transportation Consultants has completed a review of improvement options for the intersection of Logy Bay Road and Snows Lane. The review evaluated five improvement options for the intersection under existing and future traffic volumes. The improvement options included:

- Option 1A: Unsignalized Intersection (Status Quo)
- Option 1B: Unsignalized Intersection with Lane Improvements
- Option 2: 3-way Stop Controlled Intersection
- Option 3: Signalized Intersection
- Option 4: Rural Single-Lane Roundabout

The unsignalized intersection currently operates as a minor street (Snows Lane) stop controlled intersection. Logy Bay Road has one travel lane in each direction and is posted to a speed limit of 50 km/h. There is a substandard left-turn lane on the northbound approach – the lane is less than 3 metres wide and only 15 metres long (storage capacity of approximately two vehicles). Snows Lane also has one travel lane in each direction and is posted to a speed limit of 50 km/h. The study intersection under review is shown in Figure 1.

Intersection Performance and Capacity Analysis

The performance of an intersection can be evaluated using a number of measures of effectiveness. Delay and level of service (LOS), volume-to-capacity ratio (v/c) and vehicle queuing are the primary measures of effectiveness used in traffic analyses.

Delay is defined in the Highway Capacity Manual as the additional travel time experienced by a motor vehicle, pedestrian or cyclist attributable to the presence of traffic control (unsignalized or signalized intersection) and conflicting traffic. Delay is used as the basis to calculate LOS, a qualitative measure used to describe operational conditions based on service measures such as freedom to maneuver, travel time, speed, and traffic interruptions. LOS is expressed as a scale from 'A' to 'F', where LOS A represents free flow conditions or very low delay and LOS F represents delay times that are unacceptable to motorists using

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the facility. The level of service criteria for unsignalized (stop/yield controlled and roundabouts) and signalized intersections are described in Table 1.

Figure 1: Study intersection - Logy Bay Road and Snows Lane

The volume-to-capacity ratio relates the estimated traffic volume (demand volume) to the theoretical maximum volume that could be accommodated (capacity volume/adjusted saturation flow rate). As the v/c ratio approaches 1.0, the movement has reduced ability to accommodate any additional volume of traffic.

Vehicle queuing at intersections is critical to the performance of the network. The 95th percentile queue length is typically used to determine if sufficient vehicle storage is available to maintain efficient traffic flow. The 95th percentile queue length is the length of queue which is exceeded only 5 percent of the time.

The Synchro Studio (Version 9) software package was used as the primary evaluation tool. Synchro, an analysis and optimization software package, was used to analyze network intersections based on the methodology of the 6th edition of the Highway Capacity Manual published by the Transportation Research Board. SimTraffic, the micro-simulation component of the software package, was also used in the course of the analysis to check delay, illustrate and identify interactions between individual driver types and to illustrate the effects of adjacent or closely spaced intersections.

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Table 1: LOS criteria for signalized and unsignalized intersections

LOS	Description	Signalized Intersection Control Delay	Unsignalized Intersection Control Delay
A	Very low delay. Majority of through traffic on main street does not stop at all. **(Excellent)**	≤ 10 sec/veh	≤ 10 sec/veh
B	Somewhat higher delay. More vehicles have to stop for red lights. **(Very Good)**	10 – 20 sec/veh	10 – 15 sec/veh
C	Higher level of congestion and vehicles wait through more than one signal indication, occasionally backups may develop, however traffic flow is still stable and acceptable. **(Good)**	20 – 35 sec/veh	15 – 25 sec/veh
D	Congestion is noticeable and delays may become extensive. Most cars have to wait more than one red light to pass. This threshold is the upper limit for design. **(Satisfactory)**	35 – 55 sec/veh	25 – 35 sec/veh
E	Congested conditions. Traffic fills intersection capacity with long queues and delays. Many vehicles need to wait more than one green indication. The LOS is nearing capacity and is unsatisfactory. **(Unsatisfactory)**	55 – 80 sec/veh	35 – 50 sec/veh
F	Very congested conditions. Traffic demand exceeds capacity of the intersection with very long queues and delays. The LOS is generally considered to be unacceptable. **(Unacceptable)**	≥ 80 sec/veh	≥ 50 sec/veh

The combination of the two components within the software allows the analyst to review the intersections using two different approaches. The Synchro software models each intersection in isolation, while the SimTraffic software analyzes the network as a whole. SimTraffic will identify external influences on intersections such as spillbacks from upstream and/or downstream intersections include in the model.

The ARCADY/Junctions 8 software was used to analyze the single-lane roundabout option. The software can be used to predict capacities, queues, delays and accident risk at roundabouts. ARCADY uses an empirical framework based on the application of statistical regression to a large data set of observed roundabout operations in the United Kingdom. The ARCADY model takes into account key roundabout geometric features such as entry width, approach width, flare length, conflict angle, inscribed circle diameter and entry radius.

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Traffic Design Volumes

The existing conditions at the intersection were modelled using existing traffic volumes gathered on September 26th, 2017. The traffic design volumes used for the analysis are shown in Figure 2.

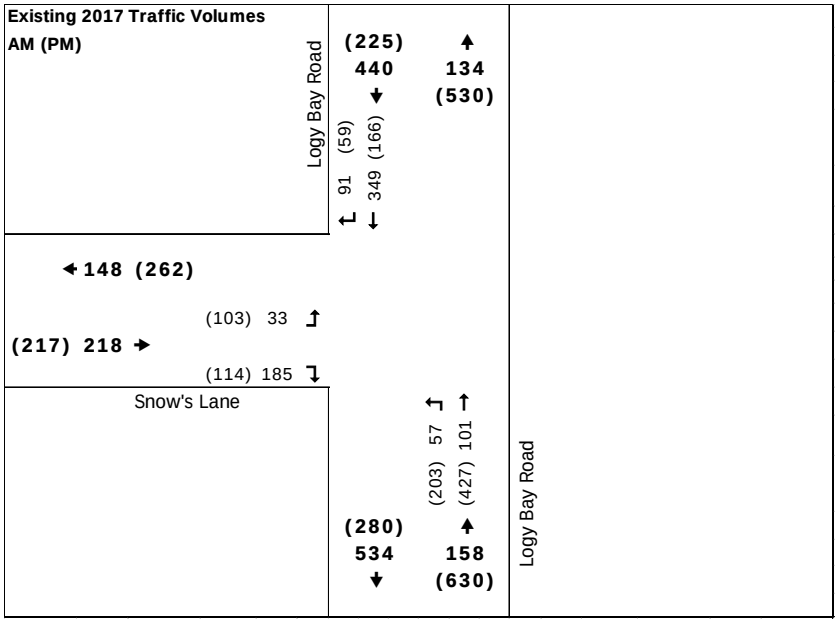

Figure 2: Traffic Design Volumes - Existing Conditions 2017

For the future conditions analysis, the existing traffic volumes were factored by 25 percent to represent background growth and development in the Town. The traffic design volumes used for the analysis are shown in Figure 3.

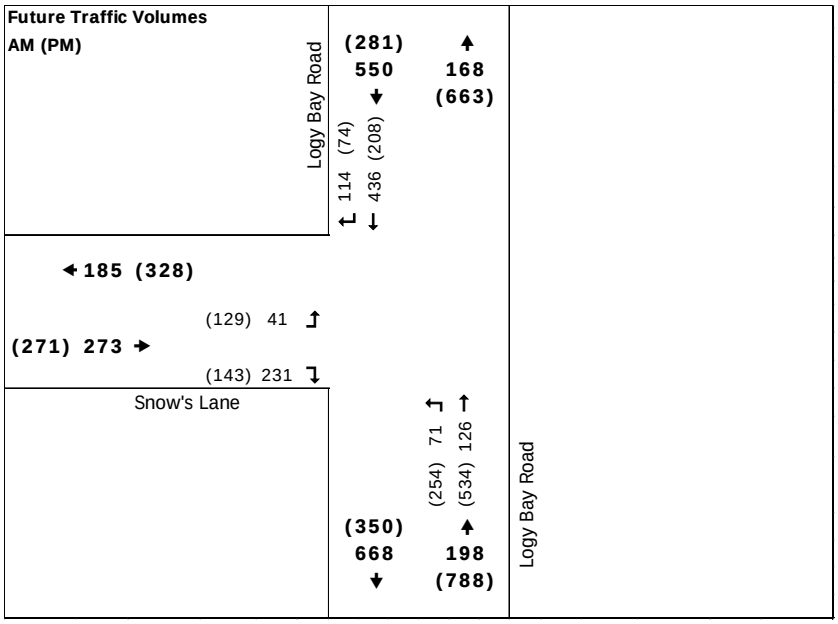

Figure 3: Traffic Design Volumes – Future Conditions

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Option 1A: Unsignalized Intersection (Status Quo)

Table 2 summarizes the results of the analysis for the unsignalized intersection including the level of service (LOS), delay per vehicle, v/c ratio and the queue length of each approach movement to the intersection. The detailed Synchro/SimTraffic results can be found in Appendix A. Under existing conditions, the intersection operates at acceptable levels of service during the AM peak hour. During the PM peak hour, the left and right turn movement on Snow's Lane operate at LOS F, and experience on average **over 1 minute of delay** per vehicle. The overall intersection operates at an acceptable level of service.

Table 2: Existing Conditions – Option 1A Unsignalized Intersection

Intersection		Existing AM Peak Hour - Unsignalized							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**5.1**	**A**				**3.1**	**A**	
Snow's Lane	EB Left - Turn	18.2	C	C	0.48	18.2	11.1	B	25.9
	EB Right - Turn						6.3	A	
Logy Bay Road	NB Left - Turn	8.8	A	A	0.07	1.4	4.5	A	13.2
	NB Through	0.0		-	-	-	0.7	A	0.0
	SB Through	0.0	A	-	-	-	1.8	A	0.9
	SB Right - Turn						0.8	A	

Intersection		Existing PM Peak Hour - Unsignalized							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**13.8**	**B**				**4.5**	**A**	
Snow's Lane	EB Left - Turn	66.2	F	F	0.87	51.8	18.0	C	36.6
	EB Right - Turn						9.9	A	
Logy Bay Road	NB Left - Turn	8.6	A	A	0.19	4.9	3.7	A	16.9
	NB Through	0.0		A	-	-	2.0	A	3.0
	SB Through	0.0	A	A	-	-	1.1	A	0.7
	SB Right - Turn						0.5	A	

Table 3 summarizes the results of the analysis for the unsignalized intersection under future conditions. The detailed Synchro/SimTraffic results can be found in Appendix A. Under future conditions, the intersection continues to operate at an acceptable of service during the AM peak hour. During the PM peak hour, the conditions on Snow's Lane deteriorate to **over 6 minutes of delay and is over capacity** in Synchro. The overall intersection operates at LOS F.

Table 3: Future Conditions – Option 1A Unsignalized Intersection

Intersection		Future AM Peak Hour - Unsignalized							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**8.8**	**A**				**4.5**	**A**	
Snow's Lane	EB Left - Turn	32.8	D	D	0.73	39.9	15.9	C	36.4
	EB Right - Turn						10.0	A	
Logy Bay Road	NB Left - Turn	9.4	A	A	0.09	2.1	5.9	A	15.6
	NB Through	0.0		-	-	-	0.9	A	0.0
	SB Through	0.0	A	-	-	-	2.3	A	1.9
	SB Right - Turn						1.1	A	

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Intersection		Future PM Peak Hour - Unsignalized							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**71.8**	**F**				**9.7**	**A**	
Snow's Lane	EB Left - Turn	380.0	F	F	1.69	143.5	45.8	E	82.5
	EB Right - Turn						30.0	D	
Logy Bay Road	NB Left - Turn	9.2	A	A	0.25	7.0	4.5	A	20.0
	NB Through	0.0		-	-	-	2.7	A	13.0
	SB Through	0.0	A	-	-	-	1.4	A	2.9
	SB Right - Turn						0.6	A	

Option 1B: Unsignalized Intersection with Lane Improvements

The unsignalized intersection was modelled with the following lane improvements:

- Upgrade the northbound left turn lane on Logy Bay Road to provide 25 metres of storage and appropriate deceleration distance,
- New southbound right turn deceleration lane of 35 metres on Logy Bay Road, and
- New eastbound left-turn lane on Snow's Lane to provide 70 metres of storage space and appropriate deceleration distance.

The conceptual drawing for the lane improvements is shown in Figure 4, a full-size drawing has been included in Appendix B.

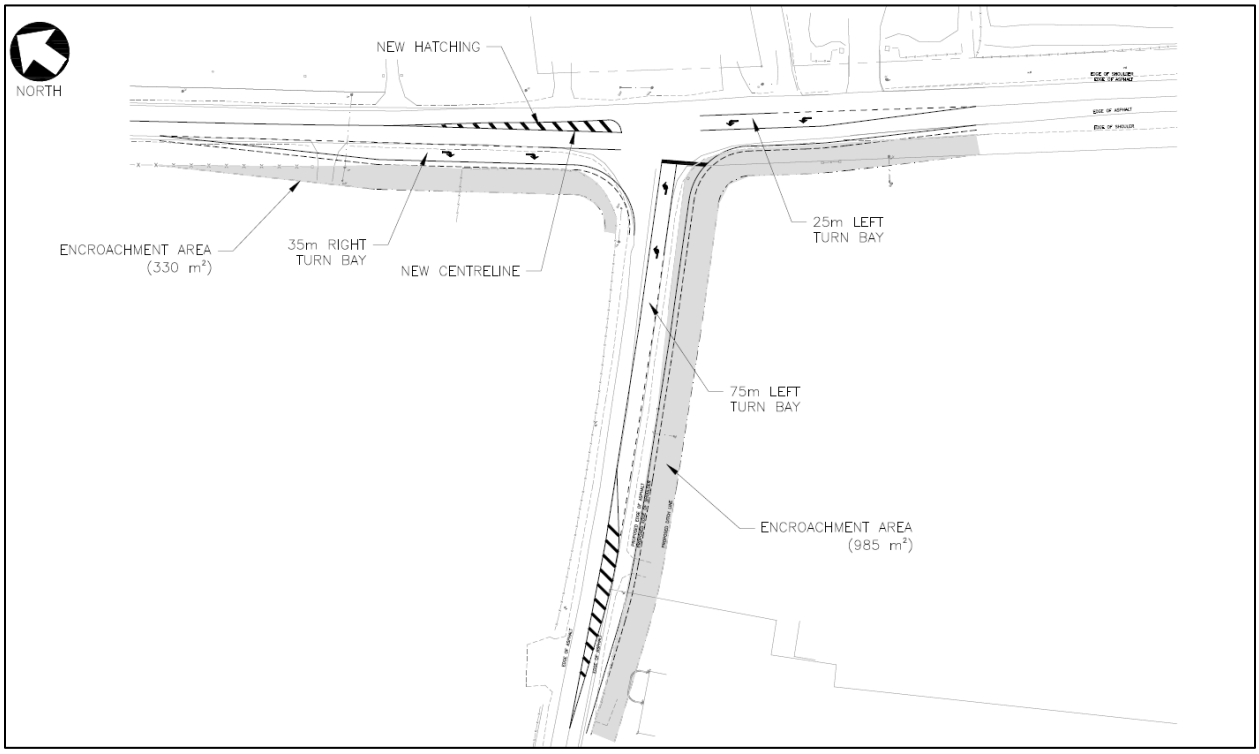

Figure 4: Conceptual drawing of Option 1B Unsignalized Intersection with Lane Improvements

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Table 4 summarizes the results of the analysis for the intersection under existing conditions with the proposed lane improvements in place. The detailed Synchro/SimTraffic results can be found in Appendix A. The intersection operates at acceptable levels of service during the AM peak hour, and the lane improvement only reduces the overall delay at the intersection by one second.

During the PM peak hour, the lane changes improve delay for the right-turn movement on Snow's Lane. The left turn movement on Snow's Lane still operates at LOS F, experiencing approximately 1 minute of delay similar to conditions without improvements. The overall intersection operates at an acceptable level of service during the PM peak hour.

Table 4: Existing Conditions – Option 1B Unsignalized Intersection with Lane Improvements

Intersection		Existing AM Peak Hour - Unsignalized w Lane Improvements							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**4.1**	**A**				**2.7**	**A**	
Snow's Lane	EB Left - Turn	15.5	B	C	0.10	2.1	10.3	B	12.9
	EB Right - Turn	14.0		B	0.35	10.5	5.9	A	22.5
Logy Bay Road	NB Left - Turn	8.8	A	A	0.07	1.4	4.4	A	13.7
	NB Through	0.0		-	-	-	0.6	A	0.0
	SB Through	0.0	A	-	-	-	1.4	A	0.0
	SB Right - Turn	0.0		-	-	-	0.6	A	1.8

Intersection		Existing PM Peak Hour - Unsignalized w Lane Improvements							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**7.8**	**A**				**3.5**	**A**	
Snow's Lane	EB Left - Turn	59.7	D	F	0.66	26.6	18.1	C	23.8
	EB Right - Turn	10.4		B	0.16	4.2	3.5	A	15.1
Logy Bay Road	NB Left - Turn	8.6	A	A	0.19	4.9	3.6	A	19.1
	NB Through	0.0		-	-	-	1.5	A	3.9
	SB Through	0.0	A	-	-	-	0.8	A	0.0
	SB Right - Turn	0.0		-	-	-	0.4	A	2.0

Table 5 summarizes the results of the analysis for the intersection with the proposed lane improvements under future conditions. The detailed Synchro/SimTraffic results can be found in Appendix A. The intersection operates at acceptable levels of service during the AM peak hour, the level of service at the southbound approach is improved from LOS D to LOS C. During the PM peak hour, the left turn movement on Snow's Lane operates at LOS F with over 4.5 minutes of delay and is over capacity in Synchro. The overall intersection operates at an acceptable level of service during the PM peak hour. Overall, the addition of auxiliary lanes to the intersection under Option 1B does not have a significant impact on operations.

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Table 5: Future Conditions – Option 1B Unsignalized Intersection with Lane Improvements

Intersection		Future AM Peak Hour - Unsignalized w Lane Improvements							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**5.3**	**A**				**3.7**	**A**	
Snow's Lane	EB Left - Turn	19.8	C	C	0.16	4.2	14.4	B	14.4
	EB Right - Turn	18.4		C	0.50	18.9	8.2	A	28.2
Logy Bay Road	NB Left - Turn	9.4	A	A	0.09	2.1	5.5	A	7.1
	NB Through	0.0		-	-	-	0.7	A	0.0
	SB Through	0.0	A	-	-	-	1.7	A	0.0
	SB Right - Turn	0.0		-	-	-	0.8	A	2.4

Intersection		Future PM Peak Hour - Unsignalized w Lane Improvements							
		Synchro					SimTraffic		
Street	Movement	Delay/ Veh (s)	APP LOS	MVT LOS	V/C	Queue (m) 95th%ile	Delay/ Veh (s)	Equivalent LOS	Queue (m) 95th%ile
Logy Bay Road & Snow's Lane		**27.5**	**D**				**6.2**	**A**	
Snow's Lane	EB Left - Turn	282.7	F	F	1.35	69.3	42.8	E	42.4
	EB Right - Turn	11.3		B	0.21	5.6	4.2	A	17.1
Logy Bay Road	NB Left - Turn	9.2	A	A	0.25	7.0	4.4	A	22.8
	NB Through	0.0		-	-	-	2.0	A	3.9
	SB Through	0.0	A	-	-	-	1.1	A	0.0
	SB Right - Turn	0.0		-	-	-	0.5	A	3.3

Option 2: 3-Way Stop Control Intersection

The Transportation Association of Canada's (TAC) Manual of Uniform Traffic Control Devices (MUTCD) provides guidelines to determine when all-way stop control should be provided at an intersection. For all-way stop control to be warranted, one or more of the following conditions must be met:

- Condition 1: Where the traffic volumes on the intersecting roads are approximately equal, and the combined pedestrian and vehicular volumes on the minor road average 200 per hour for an eight-hour period;
- Condition 2: Where the average delay to the minor road vehicular traffic entering the intersection exceeds 30 seconds per vehicle during the peak hour;
- Condition 3: Where traffic signals are not warranted, and a collision problem exists, as indicated by five or more reported collisions per year of a type which may be prevented by the installation of all-way stop signs. Such collisions include right and left turn collisions as well as right angle collisions;
- Condition 4: As an interim measure prior to the installation of traffic signals; or
- Condition 5: As an interim measure, for a period of approximately one month prior to switching the stop control from one road to an intersecting road, and the subsequent removal of existing stop signs on the first road.

The all-way stop control warrants analysis was completed for the intersection, the findings are noted below.

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- Condition 1: The turning movement counts collected at the intersection indicate that traffic volumes are not equal on both intersecting streets. Based on the six hours of data available, the minor street hourly volumes average 185 units per hour.
- Condition 2: Results of the Synchro indicate that delay only exceeds 30 seconds for the eastbound left-turn movement in the PM peak hour.
- Condition #3: No collision data available.
- Conditions #4 and #5: Not applicable.

Based on the criteria noted above, the intersection of Logy Bay Road and Snow's Lane does not warrant all-way stop control. Providing a 3-way stop at the intersection would cause unnecessary delay on Logy Bay Road and worsen the overall operations at the intersection.

Option 3: Signalized Intersection

The Transportation Association of Canada's (TAC) developed the Canadian Traffic Signal Warrant Matrix Procedure in 2005 to provide a basis for making rational, defensible decisions on the installation of traffic signals. The matrix uses a "cumulative factors methodology" to evaluate vehicle to vehicle and vehicle to pedestrian interactions while considering local factors such as demographics and roadway characteristics. The procedure also incorporates collision prediction theory which anticipates the amount of collisions based on traffic volume and intersection geometry. However, it should be noted that some of the data required for this warrant procedure is subjective in nature, such as the intersection being located "near a school". The matrix provides a final score for the intersection, in order for traffic signals to be considered an intersection must score 100 priority points or more. A traffic signal installation would be deemed unwarranted if the scoring is less than 100 points.

The Traffic Signal Warrant Matrix was used to evaluate if traffic signals should be considered for the intersection of Logy Bay Road and Snow's Lane. The intersection scored 40 points using existing traffic volumes and 64 points under the future traffic volumes (factored up by 25 percent); therefore, the intersection does not warrant traffic signals even though poor levels of service are observed on Snow's Lane. The Traffic Signal Warrant Matrix sheets can be found in Appendix C.

When warranted, traffic signals can improve safety and operations at intersections. However, in instances where they are not warranted they have been shown to create problems. Unwarranted signals typically increase delay on the major street (Logy Bay Road) and the frequency of rear end collisions.

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Option 4: Rural Single-Lane Roundabout

The intersection was modelled as a rural single-lane roundabout, the conceptual drawing for the roundabout is shown in Figure 5. A full-size drawing has been included in Appendix B.

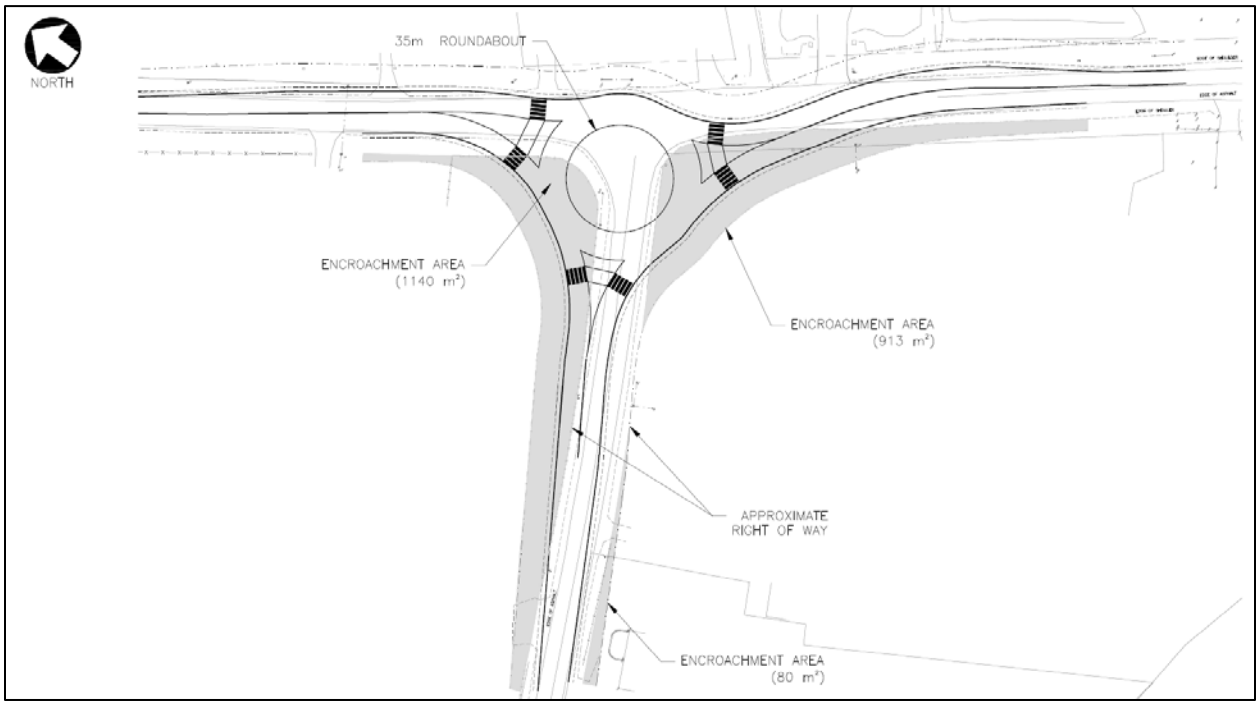

Figure 5: Conceptual drawing of Option 4 Rural Single-Lane Roundabout

Table 6 summarizes the results of the analysis for the intersection under existing conditions with the proposed roundabout in place. The detailed Arcady results can be found in Appendix D. Results show that the intersection operates at acceptable levels of service during both the AM peak hour and PM peak hours.

Table 6: Existing Conditions – Option 4: Rural Single-Lane Roundabout

Intersection		Existing - Single-Lane Roundabout							
		AM Peak Hour				PM Peak Hour			
Street	Movement	Delay/ Veh (s)	APP LOS	V/C	Queue (PCE)	Delay/ Veh (s)	APP LOS	V/C	Queue (PCE)
Logy Bay Road & Snow's Lane		**4.95**	**A**			**6.77**	**A**		
Snow's Lane	EB Left - Turn	4.92	A	0.25	0.33	4.27	A	0.22	0.28
	EB Right - Turn								
Logy Bay Road	NB Left - Turn	3.65	A	0.15	0.18	8.46	A	0.62	1.61
	NB Through								
	SB Through	5.44	A	0.42	0.73	4.44	A	0.23	0.30
	SB Right - Turn								

Table 7 summarizes the results of the analysis for the intersection under future conditions with the proposed roundabout in place. The detailed Arcady results can be found in Appendix D. Result show that the intersection operates at acceptable levels of service during both the AM peak hour and PM peak hours.

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Table 7: Future Conditions – Option 4: Rural Single-Lane Roundabout

Intersection		Future - Single-Lane Roundabout							
		AM Peak Hour				PM Peak Hour			
Street	Movement	Delay/ Veh (s)	APP LOS	V/C	Queue (PCE)	Delay/ Veh (s)	APP LOS	V/C	Queue (PCE)
Logy Bay Road & Snow's Lane		**5.94**	**A**			**10.92**	**B**		
Snow's Lane	EB Left - Turn	5.80	A	0.33	0.48	4.76	A	0.28	0.39
	EB Right - Turn								
Logy Bay Road	NB Left - Turn	3.83	A	0.19	0.23	15.16	C	0.79	3.55
	NB Through								
	SB Through	6.76	A	0.53	1.13	5.01	A	0.30	0.43
	SB Right - Turn								

Property Acquisition

Property acquisition areas were estimated based on the conceptual drawings for both Option 1B Unsignalized Intersection with Lane Improvements and Option 4 Rural Single-Lane Roundabout. It should be noted that property acquisition would be minimized during detail design.

Option 1B Unsignalized with Lane Improvements	1315 m^2
Option 4 Rural Single Lane Roundabout	2133 m^2

The single-lane roundabout option requires 60 percent more property acquisition than the lane improvement option.

Cost Estimates

Class 'D' cost estimates were prepared for Option 1B Unsignalized Intersection with Lane Improvements, Option 3 Signalized Intersection and Option 4 Rural Single-Lane Roundabout. Please note that our cost estimates do not include HST or the costs associated with utility relocations, property acquisitions, and engineering services. Detailed breakdowns of the cost are included in Appendix E.

Option 1B Unsignalized with Lane Improvements	$235,000
Option 3 Signalized Intersection	$475,000
Option 4 Rural Single Lane Roundabout	$495,000

While Option 3 is not warranted, a cost estimate was included for comparison purposes. The traffic signal equipment required for the intersection and its installation is estimated to be $200,000. In addition, if a traffic signal was installed a proper design with auxiliary turning would be required which would have a cost similar to that of Option 1B, yielding a total of $475,00, which is comparable to the roundabout.

Conclusions/Recommendations

Harbourside Transportation Consultants reviewed five alternatives for improvements at the intersection of Logy Bay Road and Snow's Lane. The five options included:

- Option 1A: Unsignalized Intersection (Status Quo)
- Option 1B: Unsignalized Intersection with Lane Improvements
- Option 2: 3-way Stop Controlled Intersection
- Option 3: Signalized Intersection

- Option 4: Single-Lane Roundabout

Under existing conditions and the current intersection configuration (Option 1A) the left and right turn movements on Snow's Lane experience high levels of delay during the PM peak hour. With a growth factor of 25 percent applied to the intersection volumes to model future conditions, the delay experience by these movements increase to over 6 minutes.

Under Option 1B the intersection was modelled with upgrades to the existing left turn lane on the northbound approach, a new right turn deceleration lane on the southbound approach and left-turn lane on the Snow's lane approach. Overall, the addition of auxiliary lanes to the intersection does not have a significant impact on operations. While it reduces delays experienced by the right-turn movement on Snow's Lane, the left turn movement still experience over 4.5 minutes of delay under future conditions. The cost of the lane improvements without property acquisition is estimated to be $235,000.

The 3-way stop control and signalized intersection options are not warranted at the intersection based on TAC guidelines. The installation of either of these options would unnecessarily increase delay on Logy Bay Road. For comparison purposes a cost estimate was prepared for the signalized intersection, the cost of the traffic signals without property acquisition is estimated to be $475,000.

Under Option 4 Single-Lane Roundabout, all movements at the intersection operate at acceptable levels of service in both the AM and PM peak hours for the existing and future conditions. The highest delay observed at the intersection is less than 16 seconds. The cost of the single-lane roundabout without property acquisition is estimated to be $495,000.

Based on the conceptual drawings, the roundabout option required 60 percent more land acquisition than the lane improvement option.

The results of the intersection performance analysis show the lane improvement option does not significantly improve operations at intersection under both existing and future conditions. The roundabout option significantly reduces delay under existing condition and continues to be efficient under future conditions. In addition, roundabouts provide significant safety benefits, reduce vehicle emissions and require little to no maintenance. If the societal costs associated with injuries, fatalities and property damage were considered, the roundabout would certainly be the preferred means of traffic control at this intersection.

If you have any further questions or comments, or would like to discuss any aspect of this report, please feel free to contact the undersigned at your convenience.

Regards,

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Appendix A: Synchro/SimTraffic Results
Appendix B: Conceptual Drawings
Appendix C: Traffic Signal Warrants Analysis
Appendix D: Arcady Results
Appendix E: Cost Estimates

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Appendix A

Synchro/SimTraffic Results

Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	185	57	101	349	91
Future Vol, veh/h	33	185	57	101	349	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	38	210	66	117	447	117

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	755	506	564	0	-	0
Stage 1	506	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	375	564	1008	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	351	564	1008	-	-	-
Mov Cap-2 Maneuver	351	-	-	-	-	-
Stage 1	564	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.2	3.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1008	-	517	-	-
HCM Lane V/C Ratio	0.066	-	0.479	-	-
HCM Control Delay (s)	8.8	-	18.2	-	-
HCM Lane LOS	A	-	C	-	-
HCM 95th %tile Q(veh)	0.2	-	2.6	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	893	792	864	865	822	777	831
Vehs Exited	896	798	857	870	826	776	832
Starting Vehs	9	15	6	14	14	13	9
Ending Vehs	6	9	13	9	10	14	8
Travel Distance (km)	457	405	440	442	421	398	424
Travel Time (hr)	11.0	9.8	10.6	10.5	10.1	9.5	10.2
Total Delay (hr)	1.2	1.0	1.1	1.0	1.0	0.9	1.1
Total Stops	264	251	253	251	217	217	238
Fuel Used (l)	36.9	32.6	35.2	35.3	33.2	31.9	34.5

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	838	837	819	833
Vehs Exited	842	835	813	834
Starting Vehs	11	8	7	10
Ending Vehs	7	10	13	11
Travel Distance (km)	430	427	417	426
Travel Time (hr)	10.4	10.3	10.1	10.2
Total Delay (hr)	1.0	1.1	1.0	1.0
Total Stops	241	250	247	243
Fuel Used (l)	34.3	34.5	33.6	34.2

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	217	206	201	220	211	189	205
Vehs Exited	217	212	193	223	214	192	198
Starting Vehs	9	15	6	14	14	13	9
Ending Vehs	9	9	14	11	11	10	16
Travel Distance (km)	110	107	101	112	107	98	104
Travel Time (hr)	2.7	2.6	2.4	2.7	2.5	2.4	2.5
Total Delay (hr)	0.3	0.3	0.2	0.3	0.2	0.2	0.2
Total Stops	63	64	48	65	41	59	53
Fuel Used (l)	9.1	8.6	8.1	9.2	8.5	8.0	8.3

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	208	223	209	208
Vehs Exited	210	226	206	209
Starting Vehs	11	8	7	10
Ending Vehs	9	5	10	9
Travel Distance (km)	107	115	106	107
Travel Time (hr)	2.6	2.8	2.6	2.6
Total Delay (hr)	0.3	0.3	0.3	0.3
Total Stops	59	65	62	57
Fuel Used (l)	8.4	9.4	8.6	8.6

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	234	184	201	210	199	224	218
Vehs Exited	234	179	202	206	193	226	220
Starting Vehs	9	9	14	11	11	10	16
Ending Vehs	9	14	13	15	17	8	14
Travel Distance (km)	122	92	103	107	101	115	112
Travel Time (hr)	3.0	2.2	2.5	2.5	2.4	2.7	2.8
Total Delay (hr)	0.3	0.2	0.2	0.3	0.3	0.3	0.3
Total Stops	64	62	65	69	50	55	72
Fuel Used (l)	9.7	7.4	8.2	8.6	8.0	9.1	9.2

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	222	200	199	208
Vehs Exited	222	190	198	207
Starting Vehs	9	5	10	9
Ending Vehs	9	15	11	13
Travel Distance (km)	113	100	101	107
Travel Time (hr)	2.7	2.4	2.5	2.6
Total Delay (hr)	0.3	0.2	0.2	0.3
Total Stops	72	62	65	64
Fuel Used (l)	9.1	8.1	8.2	8.6

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	232	179	235	221	193	183	199
Vehs Exited	234	183	235	226	197	185	206
Starting Vehs	9	14	13	15	17	8	14
Ending Vehs	7	10	13	10	13	6	7
Travel Distance (km)	118	91	121	114	101	94	103
Travel Time (hr)	2.8	2.2	2.9	2.7	2.4	2.2	2.4
Total Delay (hr)	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Total Stops	75	58	69	64	57	44	54
Fuel Used (l)	9.4	7.5	9.7	8.9	7.9	7.6	8.1

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	191	189	190	202
Vehs Exited	188	197	195	205
Starting Vehs	9	15	11	13
Ending Vehs	12	7	6	7
Travel Distance (km)	97	98	98	103
Travel Time (hr)	2.4	2.3	2.3	2.5
Total Delay (hr)	0.2	0.2	0.2	0.2
Total Stops	51	52	53	57
Fuel Used (l)	7.9	8.0	7.9	8.3

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	210	223	227	214	219	181	209
Vehs Exited	211	224	227	215	222	173	208
Starting Vehs	7	10	13	10	13	6	7
Ending Vehs	6	9	13	9	10	14	8
Travel Distance (km)	108	115	115	109	111	91	106
Travel Time (hr)	2.5	2.8	2.8	2.6	2.7	2.2	2.5
Total Delay (hr)	0.2	0.3	0.3	0.2	0.3	0.2	0.3
Total Stops	62	67	71	53	69	59	59
Fuel Used (l)	8.8	9.1	9.3	8.6	8.8	7.3	8.9

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	217	225	221	214
Vehs Exited	222	222	214	214
Starting Vehs	12	7	6	7
Ending Vehs	7	10	13	11
Travel Distance (km)	112	114	111	109
Travel Time (hr)	2.7	2.8	2.6	2.6
Total Delay (hr)	0.2	0.3	0.2	0.3
Total Stops	59	71	67	64
Fuel Used (l)	8.9	9.1	8.9	8.8

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Denied Del/Veh (s)	0.2	0.2	3.9	0.3	0.4	0.4	0.6
Total Delay (hr)	0.1	0.3	0.1	0.0	0.2	0.0	0.7
Total Del/Veh (s)	11.1	6.3	4.5	0.7	1.8	0.8	3.1
Stop Delay (hr)	0.1	0.3	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	8.1	5.1	2.3	0.0	0.0	0.0	1.6

Total Network Performance

Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.6
Total Delay (hr)	0.9
Total Del/Veh (s)	3.8
Stop Delay (hr)	0.4
Stop Del/Veh (s)	1.8

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (m)	33.5	14.4	1.3
Average Queue (m)	15.1	5.4	0.0
95th Queue (m)	25.9	13.2	0.9
Link Distance (m)	247.1		290.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		15.0	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	13.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	103	114	203	427	166	59
Future Vol, veh/h	103	114	203	427	166	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	112	124	228	480	248	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1228	292	336	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	197	747	1223	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	160	747	1223	-	-	-
Mov Cap-2 Maneuver	160	-	-	-	-	-
Stage 1	617	-	-	-	-	-
Stage 2	382	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	66.2	2.8	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1223	-	272	-	-
HCM Lane V/C Ratio	0.187	-	0.867	-	-
HCM Control Delay (s)	8.6	-	66.2	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	0.7	-	7.4	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1134	1065	1117	1094	1027	1038	1077
Vehs Exited	1138	1060	1112	1099	1032	1034	1080
Starting Vehs	11	8	4	13	17	14	10
Ending Vehs	7	13	9	8	12	18	7
Travel Distance (km)	477	442	469	457	432	436	451
Travel Time (hr)	12.4	11.3	12.1	11.6	11.0	11.0	11.5
Total Delay (hr)	2.1	1.8	1.9	1.7	1.7	1.6	1.8
Total Stops	297	288	286	282	237	252	269
Fuel Used (l)	41.6	38.6	40.7	39.3	36.6	37.5	39.3

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1069	1061	1082	1076
Vehs Exited	1075	1056	1077	1077
Starting Vehs	15	9	11	11
Ending Vehs	9	14	16	11
Travel Distance (km)	450	442	453	451
Travel Time (hr)	11.8	11.5	11.7	11.6
Total Delay (hr)	2.1	2.0	1.9	1.9
Total Stops	260	276	272	270
Fuel Used (l)	39.1	38.3	39.3	39.0

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	271	259	288	276	267	247	269
Vehs Exited	270	259	283	276	269	254	268
Starting Vehs	11	8	4	13	17	14	10
Ending Vehs	12	8	9	13	15	7	11
Travel Distance (km)	114	108	121	116	112	106	112
Travel Time (hr)	2.9	2.8	3.0	2.9	3.0	2.7	2.9
Total Delay (hr)	0.4	0.4	0.4	0.4	0.6	0.4	0.5
Total Stops	72	73	54	73	48	60	56
Fuel Used (l)	9.9	9.4	10.4	9.9	9.7	9.3	9.6

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	288	276	289	273
Vehs Exited	287	275	292	273
Starting Vehs	15	9	11	11
Ending Vehs	16	10	8	9
Travel Distance (km)	121	117	122	115
Travel Time (hr)	3.3	3.2	3.1	3.0
Total Delay (hr)	0.7	0.7	0.4	0.5
Total Stops	67	69	71	65
Fuel Used (l)	10.6	10.3	10.3	9.9

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	282	271	259	276	248	295	288
Vehs Exited	283	263	255	277	252	297	283
Starting Vehs	12	8	9	13	15	7	11
Ending Vehs	11	16	13	12	11	5	16
Travel Distance (km)	119	112	108	116	106	124	120
Travel Time (hr)	3.1	2.8	2.8	2.9	2.6	3.2	3.1
Total Delay (hr)	0.6	0.4	0.5	0.4	0.3	0.5	0.5
Total Stops	69	72	64	72	53	73	83
Fuel Used (l)	10.5	9.5	9.4	10.2	9.0	10.6	10.6

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	270	262	270	272
Vehs Exited	272	265	253	270
Starting Vehs	16	10	8	9
Ending Vehs	14	7	25	13
Travel Distance (km)	113	110	108	114
Travel Time (hr)	2.9	2.8	2.8	2.9
Total Delay (hr)	0.5	0.5	0.5	0.5
Total Stops	76	70	72	70
Fuel Used (l)	9.8	9.8	9.3	9.9

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	289	245	287	274	233	232	266
Vehs Exited	292	249	289	275	235	231	273
Starting Vehs	11	16	13	12	11	5	16
Ending Vehs	8	12	11	11	9	6	9
Travel Distance (km)	122	101	121	113	98	97	112
Travel Time (hr)	3.3	2.6	3.1	2.9	2.4	2.4	2.9
Total Delay (hr)	0.6	0.4	0.4	0.4	0.3	0.3	0.4
Total Stops	90	72	79	76	64	54	65
Fuel Used (l)	10.6	8.9	10.5	9.7	8.1	8.2	9.8

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	249	261	242	258
Vehs Exited	254	254	263	261
Starting Vehs	14	7	25	13
Ending Vehs	9	14	4	10
Travel Distance (km)	104	107	107	108
Travel Time (hr)	2.7	2.7	2.8	2.8
Total Delay (hr)	0.5	0.4	0.5	0.4
Total Stops	57	59	57	68
Fuel Used (l)	9.2	9.1	9.3	9.3

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	292	290	283	268	279	264	254
Vehs Exited	293	289	285	271	276	252	256
Starting Vehs	8	12	11	11	9	6	9
Ending Vehs	7	13	9	8	12	18	7
Travel Distance (km)	122	121	119	111	116	109	106
Travel Time (hr)	3.1	3.2	3.2	2.8	3.0	2.7	2.6
Total Delay (hr)	0.5	0.6	0.6	0.4	0.5	0.4	0.3
Total Stops	66	71	89	61	72	65	65
Fuel Used (l)	10.5	10.7	10.4	9.5	9.8	9.3	9.4

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	262	262	281	274
Vehs Exited	262	262	269	272
Starting Vehs	9	14	4	10
Ending Vehs	9	14	16	11
Travel Distance (km)	112	108	117	114
Travel Time (hr)	2.8	2.8	3.1	2.9
Total Delay (hr)	0.4	0.5	0.5	0.5
Total Stops	60	78	72	70
Fuel Used (l)	9.5	9.1	10.4	9.9

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2	0.1	0.0	0.0	0.3
Denied Del/Veh (s)	0.3	0.3	3.3	0.9	0.2	0.2	1.1
Total Delay (hr)	0.5	0.3	0.2	0.2	0.1	0.0	1.3
Total Del/Veh (s)	18.0	9.9	3.7	2.0	1.1	0.5	4.5
Stop Delay (hr)	0.4	0.3	0.1	0.0	0.0	0.0	0.8
Stop Del/Veh (s)	15.1	8.7	0.9	0.0	0.0	0.0	2.5

Total Network Performance

Denied Delay (hr)	0.3
Denied Del/Veh (s)	1.1
Total Delay (hr)	1.5
Total Del/Veh (s)	5.1
Stop Delay (hr)	0.8
Stop Del/Veh (s)	2.7

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (m)	49.6	19.2	3.7	2.2
Average Queue (m)	19.3	8.5	0.1	0.0
95th Queue (m)	36.6	16.9	3.0	0.7
Link Distance (m)	247.1		102.8	290.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		15.0		
Storage Blk Time (%)		1	0	
Queuing Penalty (veh)		3	0	

Network Summary

Network wide Queuing Penalty: 3

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	231	71	126	436	114
Future Vol, veh/h	41	231	71	126	436	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	47	263	83	147	559	146

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	945	632	705	0	-	0
Stage 1	632	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	289	479	893	-	-	-
Stage 1	528	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	262	479	893	-	-	-
Mov Cap-2 Maneuver	262	-	-	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	32.8	3.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	893	-	426	-	-
HCM Lane V/C Ratio	0.092	-	0.726	-	-
HCM Control Delay (s)	9.4	-	32.8	-	-
HCM Lane LOS	A	-	D	-	-
HCM 95th %tile Q(veh)	0.3	-	5.7	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1096	1007	1070	1070	1004	973	1037
Vehs Exited	1099	1012	1059	1078	1007	975	1036
Starting Vehs	12	18	5	17	15	18	12
Ending Vehs	9	13	16	9	12	16	13
Travel Distance (km)	561	515	544	548	515	499	528
Travel Time (hr)	14.0	12.9	13.7	13.5	12.6	12.2	13.0
Total Delay (hr)	1.9	1.7	1.9	1.8	1.5	1.5	1.7
Total Stops	330	326	329	321	272	280	307
Fuel Used (l)	46.0	42.0	44.2	44.5	41.3	40.3	43.7

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1035	1025	1024	1035
Vehs Exited	1040	1022	1027	1036
Starting Vehs	14	9	15	13
Ending Vehs	9	12	12	11
Travel Distance (km)	531	523	523	529
Travel Time (hr)	13.3	13.3	13.1	13.2
Total Delay (hr)	1.8	1.9	1.7	1.7
Total Stops	302	323	319	311
Fuel Used (l)	43.2	43.2	42.7	43.1

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	276	258	258	276	254	231	256
Vehs Exited	273	264	249	277	258	237	245
Starting Vehs	12	18	5	17	15	18	12
Ending Vehs	15	12	14	16	11	12	23
Travel Distance (km)	140	133	130	141	131	120	128
Travel Time (hr)	3.6	3.4	3.2	3.6	3.1	2.9	3.1
Total Delay (hr)	0.6	0.5	0.4	0.5	0.4	0.3	0.4
Total Stops	79	83	67	84	54	74	70
Fuel Used (l)	11.6	10.7	10.5	11.6	10.5	9.8	10.4

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	265	276	263	262
Vehs Exited	266	278	264	261
Starting Vehs	14	9	15	13
Ending Vehs	13	7	14	14
Travel Distance (km)	135	142	135	134
Travel Time (hr)	3.4	3.8	3.5	3.4
Total Delay (hr)	0.5	0.7	0.5	0.5
Total Stops	75	85	84	75
Fuel Used (l)	10.9	12.1	11.1	10.9

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	284	234	249	248	248	281	271
Vehs Exited	289	226	246	248	239	285	275
Starting Vehs	15	12	14	16	11	12	23
Ending Vehs	10	20	17	16	20	8	19
Travel Distance (km)	149	118	126	127	126	146	139
Travel Time (hr)	3.7	2.9	3.1	3.1	3.1	3.6	3.6
Total Delay (hr)	0.6	0.3	0.4	0.4	0.4	0.5	0.5
Total Stops	78	76	82	80	67	74	87
Fuel Used (l)	12.1	9.5	10.3	10.4	10.2	11.6	11.7

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	268	244	250	259
Vehs Exited	271	235	249	256
Starting Vehs	13	7	14	14
Ending Vehs	10	16	15	14
Travel Distance (km)	138	122	127	132
Travel Time (hr)	3.5	3.0	3.2	3.3
Total Delay (hr)	0.5	0.4	0.4	0.4
Total Stops	92	75	79	79
Fuel Used (l)	11.4	10.0	10.4	10.8

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	272	239	278	277	238	228	247
Vehs Exited	270	242	283	278	245	228	255
Starting Vehs	10	20	17	16	20	8	19
Ending Vehs	12	17	12	15	13	8	11
Travel Distance (km)	137	121	144	142	124	116	128
Travel Time (hr)	3.4	3.1	3.7	3.6	3.0	2.8	3.1
Total Delay (hr)	0.4	0.4	0.6	0.5	0.4	0.3	0.3
Total Stops	90	80	87	83	72	54	67
Fuel Used (l)	11.2	10.2	11.5	11.4	10.0	9.4	10.3

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	245	232	247	250
Vehs Exited	242	240	249	253
Starting Vehs	10	16	15	14
Ending Vehs	13	8	13	11
Travel Distance (km)	124	121	126	128
Travel Time (hr)	3.1	3.0	3.1	3.2
Total Delay (hr)	0.4	0.4	0.4	0.4
Total Stops	70	71	71	74
Fuel Used (l)	10.2	9.9	10.3	10.4

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	264	276	285	269	264	233	263
Vehs Exited	267	280	281	275	265	225	261
Starting Vehs	12	17	12	15	13	8	11
Ending Vehs	9	13	16	9	12	16	13
Travel Distance (km)	135	143	144	138	134	117	132
Travel Time (hr)	3.3	3.6	3.7	3.3	3.3	2.9	3.3
Total Delay (hr)	0.4	0.5	0.6	0.3	0.4	0.4	0.4
Total Stops	83	87	93	74	79	78	83
Fuel Used (l)	11.2	11.6	11.9	11.1	10.6	9.5	11.3

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	257	273	264	265
Vehs Exited	261	269	265	265
Starting Vehs	13	8	13	11
Ending Vehs	9	12	12	11
Travel Distance (km)	133	138	136	135
Travel Time (hr)	3.3	3.5	3.3	3.4
Total Delay (hr)	0.4	0.5	0.4	0.4
Total Stops	65	92	85	81
Fuel Used (l)	10.7	11.2	11.0	11.0

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.0	0.2
Denied Del/Veh (s)	0.3	0.3	3.8	0.3	0.5	0.4	0.6
Total Delay (hr)	0.2	0.7	0.1	0.0	0.3	0.0	1.3
Total Del/Veh (s)	15.9	10.0	5.9	0.9	2.3	1.1	4.5
Stop Delay (hr)	0.1	0.6	0.1	0.0	0.0	0.0	0.8
Stop Del/Veh (s)	12.8	8.5	3.6	0.0	0.0	0.0	2.7

Total Network Performance

Denied Delay (hr)	0.2
Denied Del/Veh (s)	0.6
Total Delay (hr)	1.6
Total Del/Veh (s)	5.4
Stop Delay (hr)	0.8
Stop Del/Veh (s)	2.9

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	SB
Directions Served	LR	L	TR
Maximum Queue (m)	50.0	17.2	4.6
Average Queue (m)	20.4	7.3	0.2
95th Queue (m)	36.4	15.6	1.9
Link Distance (m)	247.1		290.2
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)		15.0	
Storage Blk Time (%)		1	
Queuing Penalty (veh)		1	

Network Summary

Network wide Queuing Penalty: 1

Intersection	
Int Delay, s/veh	71.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	129	143	254	534	208	74
Future Vol, veh/h	129	143	254	534	208	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	150	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	140	155	285	600	310	110

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1535	365	420	0	-	0
Stage 1	365	-	-	-	-	-
Stage 2	1170	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 128	680	1139	-	-	-
Stage 1	702	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 96	680	1139	-	-	-
Mov Cap-2 Maneuver	~ 96	-	-	-	-	-
Stage 1	527	-	-	-	-	-
Stage 2	295	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	$ 380	3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1139	-	175	-	-
HCM Lane V/C Ratio	0.251	-	1.689	-	-
HCM Control Delay (s)	9.2	-	$ 380	-	-
HCM Lane LOS	A	-	F	-	-
HCM 95th %tile Q(veh)	1	-	20.5	-	-

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

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1401	1366	1406	1365	1288	1286	1360
Vehs Exited	1395	1349	1390	1370	1289	1285	1363
Starting Vehs	8	13	11	15	22	16	14
Ending Vehs	14	30	27	10	21	17	11
Travel Distance (km)	586	565	589	569	540	541	568
Travel Time (hr)	19.3	18.9	17.9	15.8	14.4	14.5	15.8
Total Delay (hr)	6.7	6.7	5.1	3.6	2.7	2.9	3.6
Total Stops	377	398	381	364	324	328	362
Fuel Used (l)	55.4	53.7	54.1	51.2	47.4	48.0	51.6

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1349	1339	1359	1352
Vehs Exited	1352	1334	1359	1348
Starting Vehs	15	15	19	16
Ending Vehs	12	20	19	19
Travel Distance (km)	566	558	569	565
Travel Time (hr)	16.5	16.1	16.8	16.6
Total Delay (hr)	4.3	4.0	4.5	4.4
Total Stops	351	379	366	363
Fuel Used (l)	51.2	50.4	52.0	51.5

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	319	345	363	342	333	318	333
Vehs Exited	314	348	362	335	338	327	333
Starting Vehs	8	13	11	15	22	16	14
Ending Vehs	13	10	12	22	17	7	14
Travel Distance (km)	134	143	154	143	141	135	139
Travel Time (hr)	3.8	4.0	4.6	3.9	3.8	3.6	3.7
Total Delay (hr)	0.9	0.9	1.3	0.9	0.8	0.7	0.7
Total Stops	92	98	83	95	81	78	74
Fuel Used (l)	12.1	12.7	14.2	12.7	12.6	12.0	12.2

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	369	348	366	344
Vehs Exited	363	350	372	345
Starting Vehs	15	15	19	16
Ending Vehs	21	13	13	16
Travel Distance (km)	152	147	156	144
Travel Time (hr)	4.8	4.3	4.8	4.1
Total Delay (hr)	1.5	1.2	1.4	1.0
Total Stops	92	94	103	89
Fuel Used (l)	14.0	13.5	14.4	13.0

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	356	327	331	340	316	361	351
Vehs Exited	353	317	326	344	318	359	347
Starting Vehs	13	10	12	22	17	7	14
Ending Vehs	16	20	17	18	15	9	18
Travel Distance (km)	148	137	138	143	134	153	146
Travel Time (hr)	4.3	3.6	3.8	3.8	3.4	4.2	4.1
Total Delay (hr)	1.1	0.7	0.9	0.7	0.5	0.9	1.0
Total Stops	87	91	81	92	70	95	102
Fuel Used (l)	13.5	12.0	12.2	13.0	11.7	13.6	13.3

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	338	335	345	340
Vehs Exited	337	328	329	335
Starting Vehs	21	13	13	16
Ending Vehs	22	20	29	19
Travel Distance (km)	141	139	139	142
Travel Time (hr)	3.9	4.1	4.2	3.9
Total Delay (hr)	0.8	1.1	1.1	0.9
Total Stops	98	99	101	91
Fuel Used (l)	12.5	13.0	12.7	12.8

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	355	322	349	340	292	285	347
Vehs Exited	350	324	349	346	294	285	350
Starting Vehs	16	20	17	18	15	9	18
Ending Vehs	21	18	17	12	13	9	15
Travel Distance (km)	148	134	148	141	122	120	145
Travel Time (hr)	4.4	3.6	4.4	4.1	3.1	3.1	4.4
Total Delay (hr)	1.1	0.7	1.2	1.0	0.5	0.6	1.2
Total Stops	100	93	103	99	78	71	91
Fuel Used (l)	13.5	12.3	13.6	12.7	10.4	10.4	13.3

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	313	324	308	323
Vehs Exited	322	332	327	328
Starting Vehs	22	20	29	19
Ending Vehs	13	12	10	16
Travel Distance (km)	133	137	133	136
Travel Time (hr)	3.7	3.9	3.8	3.8
Total Delay (hr)	0.8	0.9	0.9	0.9
Total Stops	82	89	72	87
Fuel Used (l)	12.1	12.2	12.0	12.3

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	371	372	363	343	347	322	329
Vehs Exited	378	360	353	345	339	314	333
Starting Vehs	21	18	17	12	13	9	15
Ending Vehs	14	30	27	10	21	17	11
Travel Distance (km)	156	152	150	142	144	134	138
Travel Time (hr)	6.9	7.6	5.1	4.0	4.0	3.6	3.7
Total Delay (hr)	3.5	4.3	1.8	1.0	0.9	0.7	0.7
Total Stops	98	116	114	78	95	84	95
Fuel Used (l)	16.4	16.8	14.2	12.9	12.7	11.9	12.8

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	329	332	340	345
Vehs Exited	330	324	331	341
Starting Vehs	13	12	10	16
Ending Vehs	12	20	19	19
Travel Distance (km)	139	135	141	143
Travel Time (hr)	4.2	3.8	4.0	4.7
Total Delay (hr)	1.2	0.8	1.0	1.6
Total Stops	79	97	90	93
Fuel Used (l)	12.6	11.7	12.8	13.5

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.2	0.2	0.0	0.0	0.4
Denied Del/Veh (s)	0.3	0.3	3.1	1.2	0.3	0.3	1.2
Total Delay (hr)	1.6	1.2	0.3	0.4	0.1	0.0	3.7
Total Del/Veh (s)	45.8	30.0	4.5	2.7	1.4	0.6	9.7
Stop Delay (hr)	1.5	1.2	0.1	0.0	0.0	0.0	2.8
Stop Del/Veh (s)	43.4	29.1	1.4	0.0	0.0	0.0	7.4

Total Network Performance

Denied Delay (hr)	0.4
Denied Del/Veh (s)	1.2
Total Delay (hr)	4.0
Total Del/Veh (s)	10.4
Stop Delay (hr)	2.9
Stop Del/Veh (s)	7.6

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	NB	NB	SB
Directions Served	LR	L	T	TR
Maximum Queue (m)	94.2	21.0	23.3	6.8
Average Queue (m)	38.5	11.6	1.6	0.4
95th Queue (m)	82.5	20.0	13.0	2.9
Link Distance (m)	247.1		102.8	290.2
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)		15.0		
Storage Blk Time (%)		2	0	
Queuing Penalty (veh)		11	0	

Network Summary

Network wide Queuing Penalty: 11

Intersection	
Int Delay, s/veh	4.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	33	185	57	101	349	91
Future Vol, veh/h	33	185	57	101	349	91
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	750	0	250	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	38	210	66	117	447	117

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	696	447	564	0	-	0
Stage 1	447	-	-	-	-	-
Stage 2	249	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	406	609	1008	-	-	-
Stage 1	642	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	380	609	1008	-	-	-
Mov Cap-2 Maneuver	380	-	-	-	-	-
Stage 1	600	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	14.2	3.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1008	-	380	609	-	-
HCM Lane V/C Ratio	0.066	-	0.099	0.345	-	-
HCM Control Delay (s)	8.8	-	15.5	14	-	-
HCM Lane LOS	A	-	C	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	1.5	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	893	792	864	865	821	777	831
Vehs Exited	896	798	857	869	826	776	832
Starting Vehs	9	15	6	13	13	13	9
Ending Vehs	6	9	13	9	8	14	8
Travel Distance (km)	456	404	439	441	420	397	423
Travel Time (hr)	11.0	9.8	10.6	10.5	10.0	9.6	10.3
Total Delay (hr)	1.1	1.0	1.1	1.0	1.0	1.0	1.1
Total Stops	265	248	254	248	219	217	238
Fuel Used (l)	36.5	32.3	35.0	35.1	33.0	31.8	34.2

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	838	837	819	833
Vehs Exited	842	835	815	834
Starting Vehs	11	8	7	10
Ending Vehs	7	10	11	11
Travel Distance (km)	429	426	416	425
Travel Time (hr)	10.4	10.4	10.1	10.3
Total Delay (hr)	1.0	1.1	1.0	1.0
Total Stops	240	247	245	242
Fuel Used (l)	34.0	34.4	33.5	34.0

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	217	205	201	220	211	189	205
Vehs Exited	217	212	193	221	213	192	198
Starting Vehs	9	15	6	13	13	13	9
Ending Vehs	9	8	14	12	11	10	16
Travel Distance (km)	110	107	101	112	107	98	104
Travel Time (hr)	2.7	2.6	2.4	2.7	2.5	2.4	2.5
Total Delay (hr)	0.2	0.3	0.2	0.3	0.2	0.2	0.3
Total Stops	62	64	47	61	42	58	54
Fuel Used (l)	8.8	8.5	8.0	9.1	8.5	8.0	8.2

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	208	223	209	208
Vehs Exited	210	226	205	208
Starting Vehs	11	8	7	10
Ending Vehs	9	5	11	10
Travel Distance (km)	106	114	106	106
Travel Time (hr)	2.6	2.8	2.6	2.6
Total Delay (hr)	0.3	0.3	0.3	0.3
Total Stops	59	66	61	57
Fuel Used (l)	8.4	9.4	8.5	8.5

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	234	185	200	210	199	224	218
Vehs Exited	234	179	202	207	194	226	221
Starting Vehs	9	8	14	12	11	10	16
Ending Vehs	9	14	12	15	16	8	13
Travel Distance (km)	121	92	103	107	101	115	112
Travel Time (hr)	3.0	2.2	2.5	2.6	2.4	2.8	2.8
Total Delay (hr)	0.3	0.2	0.2	0.3	0.2	0.3	0.3
Total Stops	66	63	64	69	50	54	70
Fuel Used (l)	9.6	7.4	8.2	8.6	7.9	9.1	9.1

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	222	200	199	208
Vehs Exited	222	190	199	207
Starting Vehs	9	5	11	10
Ending Vehs	9	15	11	11
Travel Distance (km)	113	100	101	106
Travel Time (hr)	2.7	2.4	2.5	2.6
Total Delay (hr)	0.3	0.3	0.3	0.3
Total Stops	72	61	64	63
Fuel Used (l)	9.0	8.1	8.2	8.5

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	232	179	236	221	194	183	199
Vehs Exited	234	183	235	225	197	185	205
Starting Vehs	9	14	12	15	16	8	13
Ending Vehs	7	10	13	11	13	6	7
Travel Distance (km)	117	91	120	114	100	93	103
Travel Time (hr)	2.9	2.2	3.0	2.7	2.4	2.2	2.4
Total Delay (hr)	0.3	0.2	0.3	0.3	0.2	0.2	0.2
Total Stops	76	58	71	64	58	44	54
Fuel Used (l)	9.3	7.5	9.6	8.9	7.8	7.5	8.1

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	191	189	190	202
Vehs Exited	188	197	194	204
Starting Vehs	9	15	11	11
Ending Vehs	12	7	7	9
Travel Distance (km)	97	98	98	103
Travel Time (hr)	2.4	2.4	2.4	2.5
Total Delay (hr)	0.2	0.2	0.2	0.2
Total Stops	51	52	54	57
Fuel Used (l)	7.8	7.9	7.8	8.2

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	210	223	227	214	217	181	209
Vehs Exited	211	224	227	216	222	173	208
Starting Vehs	7	10	13	11	13	6	7
Ending Vehs	6	9	13	9	8	14	8
Travel Distance (km)	107	115	115	109	111	91	105
Travel Time (hr)	2.6	2.8	2.9	2.5	2.7	2.2	2.5
Total Delay (hr)	0.3	0.3	0.3	0.2	0.3	0.2	0.3
Total Stops	61	63	72	54	69	61	60
Fuel Used (l)	8.7	9.0	9.3	8.5	8.8	7.2	8.8

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	217	225	221	214
Vehs Exited	222	222	217	215
Starting Vehs	12	7	7	9
Ending Vehs	7	10	11	11
Travel Distance (km)	112	114	111	109
Travel Time (hr)	2.7	2.8	2.7	2.6
Total Delay (hr)	0.3	0.3	0.2	0.3
Total Stops	58	68	66	63
Fuel Used (l)	8.8	9.0	8.9	8.7

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.1	0.3
Denied Del/Veh (s)	3.7	0.3	3.9	0.3	0.5	3.0	1.1
Total Delay (hr)	0.1	0.3	0.1	0.0	0.1	0.0	0.6
Total Del/Veh (s)	10.3	5.9	4.4	0.6	1.4	0.6	2.7
Stop Delay (hr)	0.1	0.3	0.0	0.0	0.0	0.0	0.4
Stop Del/Veh (s)	8.0	4.9	2.3	0.0	0.0	0.0	1.6

Total Network Performance

Denied Delay (hr)	0.3
Denied Del/Veh (s)	1.1
Total Delay (hr)	0.8
Total Del/Veh (s)	3.4
Stop Delay (hr)	0.4
Stop Del/Veh (s)	1.7

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	EB	NB	SB
Directions Served	L	R	L	R
Maximum Queue (m)	17.0	28.2	16.1	4.0
Average Queue (m)	5.9	12.4	5.3	0.2
95th Queue (m)	12.9	22.5	13.7	1.8
Link Distance (m)		243.3		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	75.0		25.0	25.0
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	103	114	203	427	166	59
Future Vol, veh/h	103	114	203	427	166	59
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	750	0	250	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	112	124	228	480	248	88

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1184	248	336	0	-	0
Stage 1	248	-	-	-	-	-
Stage 2	936	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	209	791	1223	-	-	-
Stage 1	793	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	170	791	1223	-	-	-
Mov Cap-2 Maneuver	170	-	-	-	-	-
Stage 1	646	-	-	-	-	-
Stage 2	382	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	33.8	2.8	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1223	-	170	791	-	-
HCM Lane V/C Ratio	0.187	-	0.659	0.157	-	-
HCM Control Delay (s)	8.6	-	59.7	10.4	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.7	-	3.8	0.6	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1134	1064	1118	1094	1029	1038	1077
Vehs Exited	1136	1059	1111	1099	1031	1035	1079
Starting Vehs	9	8	4	13	14	14	9
Ending Vehs	7	13	11	8	12	17	7
Travel Distance (km)	475	441	468	455	431	435	449
Travel Time (hr)	12.2	11.3	12.0	11.6	10.7	11.0	11.4
Total Delay (hr)	1.9	1.7	1.9	1.7	1.4	1.6	1.7
Total Stops	289	289	287	285	242	254	271
Fuel Used (l)	40.7	38.0	40.1	38.7	35.9	37.1	38.8

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1069	1061	1082	1076
Vehs Exited	1075	1057	1079	1077
Starting Vehs	15	9	11	10
Ending Vehs	9	13	14	11
Travel Distance (km)	449	441	452	450
Travel Time (hr)	11.7	11.2	11.7	11.5
Total Delay (hr)	1.9	1.7	1.9	1.7
Total Stops	260	277	275	272
Fuel Used (l)	38.6	37.4	38.8	38.4

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	271	259	287	276	269	247	269
Vehs Exited	267	259	283	276	268	254	267
Starting Vehs	9	8	4	13	14	14	9
Ending Vehs	13	8	8	13	15	7	11
Travel Distance (km)	113	108	120	116	112	106	112
Travel Time (hr)	2.9	2.8	3.0	2.9	2.7	2.7	2.8
Total Delay (hr)	0.5	0.4	0.4	0.4	0.3	0.4	0.4
Total Stops	69	70	59	72	49	58	58
Fuel Used (l)	9.7	9.2	10.2	9.7	9.3	9.2	9.5

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	288	276	289	273
Vehs Exited	287	276	292	273
Starting Vehs	15	9	11	10
Ending Vehs	16	9	8	11
Travel Distance (km)	121	117	121	115
Travel Time (hr)	3.1	3.0	3.1	2.9
Total Delay (hr)	0.5	0.5	0.5	0.4
Total Stops	66	70	72	65
Fuel Used (l)	10.4	10.1	10.3	9.7

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	282	271	260	276	248	295	288
Vehs Exited	287	264	255	277	252	297	286
Starting Vehs	13	8	8	13	15	7	11
Ending Vehs	8	15	13	12	11	5	13
Travel Distance (km)	119	112	108	116	106	124	121
Travel Time (hr)	3.1	2.8	2.7	3.0	2.6	3.1	3.1
Total Delay (hr)	0.5	0.4	0.4	0.5	0.3	0.4	0.5
Total Stops	67	68	63	75	56	74	83
Fuel Used (l)	10.3	9.4	9.2	10.1	8.9	10.5	10.5

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	270	262	270	272
Vehs Exited	273	265	253	271
Starting Vehs	16	9	8	11
Ending Vehs	13	6	25	13
Travel Distance (km)	113	110	107	114
Travel Time (hr)	3.0	2.8	2.8	2.9
Total Delay (hr)	0.5	0.4	0.4	0.4
Total Stops	77	71	71	71
Fuel Used (l)	9.7	9.5	9.1	9.7

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	289	244	287	273	233	232	266
Vehs Exited	289	248	288	275	234	231	269
Starting Vehs	8	15	13	12	11	5	13
Ending Vehs	8	11	12	10	10	6	10
Travel Distance (km)	121	101	121	113	97	97	111
Travel Time (hr)	3.1	2.6	3.1	2.9	2.4	2.4	2.8
Total Delay (hr)	0.5	0.4	0.5	0.4	0.3	0.3	0.4
Total Stops	86	73	80	77	64	56	64
Fuel Used (l)	10.4	8.8	10.4	9.5	8.0	8.2	9.5

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	249	261	242	258
Vehs Exited	253	253	263	261
Starting Vehs	13	6	25	13
Ending Vehs	9	14	4	9
Travel Distance (km)	104	107	107	108
Travel Time (hr)	2.7	2.7	2.8	2.7
Total Delay (hr)	0.4	0.4	0.5	0.4
Total Stops	56	62	58	68
Fuel Used (l)	9.0	9.0	9.2	9.2

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	292	290	284	269	279	264	254
Vehs Exited	293	288	285	271	277	253	257
Starting Vehs	8	11	12	10	10	6	10
Ending Vehs	7	13	11	8	12	17	7
Travel Distance (km)	122	120	119	111	116	109	106
Travel Time (hr)	3.1	3.1	3.2	2.8	2.9	2.7	2.7
Total Delay (hr)	0.5	0.5	0.6	0.4	0.4	0.4	0.3
Total Stops	67	78	85	61	73	66	66
Fuel Used (l)	10.4	10.6	10.3	9.4	9.7	9.3	9.3

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	262	262	281	274
Vehs Exited	262	263	271	272
Starting Vehs	9	14	4	9
Ending Vehs	9	13	14	11
Travel Distance (km)	112	108	117	114
Travel Time (hr)	2.8	2.7	3.1	2.9
Total Delay (hr)	0.4	0.3	0.5	0.4
Total Stops	61	74	74	70
Fuel Used (l)	9.4	8.9	10.3	9.7

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.0	0.2	0.1	0.0	0.1	0.5
Denied Del/Veh (s)	3.7	0.4	3.3	0.9	0.3	3.3	1.6
Total Delay (hr)	0.5	0.1	0.2	0.2	0.0	0.0	1.0
Total Del/Veh (s)	18.1	3.5	3.6	1.5	0.8	0.4	3.5
Stop Delay (hr)	0.4	0.1	0.1	0.0	0.0	0.0	0.6
Stop Del/Veh (s)	15.9	2.9	1.0	0.0	0.0	0.0	2.0

Total Network Performance

Denied Delay (hr)	0.5
Denied Del/Veh (s)	1.6
Total Delay (hr)	1.2
Total Del/Veh (s)	4.1
Stop Delay (hr)	0.6
Stop Del/Veh (s)	2.1

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	R
Maximum Queue (m)	30.5	20.0	23.8	3.8	3.2
Average Queue (m)	12.6	8.6	9.2	0.1	0.2
95th Queue (m)	23.8	15.1	19.1	3.9	2.0
Link Distance (m)		243.3		99.1	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)	75.0		25.0		25.0
Storage Blk Time (%)			0		
Queuing Penalty (veh)			1		

Network Summary

Network wide Queuing Penalty: 1

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	41	231	71	126	436	114
Future Vol, veh/h	41	231	71	126	436	114
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	750	0	250	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	88	88	86	86	78	78
Heavy Vehicles, %	3	3	2	12	3	2
Mvmt Flow	47	263	83	147	559	146

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	872	559	705	0	-	0
Stage 1	559	-	-	-	-	-
Stage 2	313	-	-	-	-	-
Critical Hdwy	6.43	6.23	4.12	-	-	-
Critical Hdwy Stg 1	5.43	-	-	-	-	-
Critical Hdwy Stg 2	5.43	-	-	-	-	-
Follow-up Hdwy	3.527	3.327	2.218	-	-	-
Pot Cap-1 Maneuver	320	527	893	-	-	-
Stage 1	570	-	-	-	-	-
Stage 2	739	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	290	527	893	-	-	-
Mov Cap-2 Maneuver	290	-	-	-	-	-
Stage 1	517	-	-	-	-	-
Stage 2	739	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.6	3.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	893	-	290	527	-	-
HCM Lane V/C Ratio	0.092	-	0.161	0.498	-	-
HCM Control Delay (s)	9.4	-	19.8	18.4	-	-
HCM Lane LOS	A	-	C	C	-	-
HCM 95th %tile Q(veh)	0.3	-	0.6	2.7	-	-

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	7:15	7:15	7:15	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1096	1006	1070	1070	1003	973	1037
Vehs Exited	1097	1012	1059	1077	1006	975	1037
Starting Vehs	10	19	5	16	14	18	12
Ending Vehs	9	13	16	9	11	16	12
Travel Distance (km)	559	514	542	547	514	499	527
Travel Time (hr)	13.8	12.8	13.6	13.3	12.5	12.2	13.0
Total Delay (hr)	1.7	1.6	1.8	1.5	1.4	1.4	1.6
Total Stops	329	322	326	319	275	284	309
Fuel Used (l)	45.3	41.7	43.8	44.1	41.0	40.3	43.3

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	7:15	7:15	7:15	7:15
End Time	8:45	8:45	8:45	8:45
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1035	1025	1024	1034
Vehs Exited	1039	1024	1026	1035
Starting Vehs	13	10	15	12
Ending Vehs	9	11	13	12
Travel Distance (km)	529	522	522	527
Travel Time (hr)	13.1	13.3	13.0	13.1
Total Delay (hr)	1.6	1.8	1.6	1.6
Total Stops	297	327	318	310
Fuel Used (l)	42.7	42.8	42.6	42.8

Interval #0 Information Seeding

Start Time	7:15
End Time	7:45
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	276	258	258	276	254	231	256
Vehs Exited	271	265	248	276	257	237	247
Starting Vehs	10	19	5	16	14	18	12
Ending Vehs	15	12	15	16	11	12	21
Travel Distance (km)	139	133	130	141	130	120	128
Travel Time (hr)	3.4	3.4	3.2	3.4	3.2	2.9	3.1
Total Delay (hr)	0.4	0.5	0.4	0.4	0.4	0.3	0.4
Total Stops	79	84	66	81	56	75	71
Fuel Used (l)	11.2	10.6	10.4	11.4	10.5	9.9	10.2

Interval #1 Information Recording

Start Time	7:45
End Time	8:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	265	276	263	262
Vehs Exited	265	279	263	261
Starting Vehs	13	10	15	12
Ending Vehs	13	7	15	13
Travel Distance (km)	135	142	135	133
Travel Time (hr)	3.4	3.7	3.5	3.3
Total Delay (hr)	0.4	0.6	0.5	0.4
Total Stops	71	84	84	74
Fuel Used (l)	10.8	11.9	11.0	10.8

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	284	234	249	248	248	281	271
Vehs Exited	289	226	248	248	240	285	274
Starting Vehs	15	12	15	16	11	12	21
Ending Vehs	10	20	16	16	19	8	18
Travel Distance (km)	148	118	126	127	126	146	140
Travel Time (hr)	3.7	2.9	3.1	3.1	3.1	3.6	3.5
Total Delay (hr)	0.5	0.3	0.4	0.3	0.4	0.4	0.5
Total Stops	80	75	82	81	66	74	86
Fuel Used (l)	11.9	9.5	10.2	10.4	10.0	11.5	11.7

Interval #2 Information Recording

Start Time	8:00
End Time	8:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	268	244	250	259
Vehs Exited	271	235	250	257
Starting Vehs	13	7	15	13
Ending Vehs	10	16	15	15
Travel Distance (km)	137	122	126	132
Travel Time (hr)	3.4	3.1	3.1	3.3
Total Delay (hr)	0.4	0.4	0.3	0.4
Total Stops	91	78	79	79
Fuel Used (l)	11.3	10.0	10.3	10.7

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	272	238	278	277	238	228	247
Vehs Exited	270	242	282	281	243	228	254
Starting Vehs	10	20	16	16	19	8	18
Ending Vehs	12	16	12	12	14	8	11
Travel Distance (km)	137	120	143	142	124	116	127
Travel Time (hr)	3.4	3.0	3.6	3.5	3.0	2.8	3.1
Total Delay (hr)	0.4	0.3	0.5	0.5	0.4	0.3	0.3
Total Stops	90	78	88	82	74	55	68
Fuel Used (l)	11.1	10.1	11.3	11.3	9.9	9.4	10.2

Interval #3 Information Recording

Start Time	8:15
End Time	8:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	245	232	246	249
Vehs Exited	242	240	249	253
Starting Vehs	10	16	15	15
Ending Vehs	13	8	12	11
Travel Distance (km)	124	120	126	128
Travel Time (hr)	3.1	3.0	3.1	3.2
Total Delay (hr)	0.4	0.4	0.4	0.4
Total Stops	70	73	72	74
Fuel Used (l)	10.2	9.9	10.2	10.4

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	264	276	285	269	263	233	263
Vehs Exited	267	279	281	272	266	225	262
Starting Vehs	12	16	12	12	14	8	11
Ending Vehs	9	13	16	9	11	16	12
Travel Distance (km)	135	142	143	138	133	117	132
Travel Time (hr)	3.3	3.6	3.7	3.3	3.3	2.9	3.3
Total Delay (hr)	0.4	0.5	0.6	0.3	0.4	0.3	0.4
Total Stops	80	85	90	75	79	80	84
Fuel Used (l)	11.1	11.5	11.8	11.0	10.6	9.5	11.3

Interval #4 Information Recording

Start Time	8:30
End Time	8:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	257	273	265	265
Vehs Exited	261	270	264	264
Starting Vehs	13	8	12	11
Ending Vehs	9	11	13	12
Travel Distance (km)	133	138	135	135
Travel Time (hr)	3.2	3.5	3.3	3.3
Total Delay (hr)	0.3	0.5	0.4	0.4
Total Stops	65	92	83	80
Fuel Used (l)	10.5	11.1	11.0	10.9

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.1	0.3
Denied Del/Veh (s)	3.6	0.4	3.8	0.3	0.7	2.9	1.1
Total Delay (hr)	0.2	0.5	0.1	0.0	0.2	0.0	1.1
Total Del/Veh (s)	14.4	8.2	5.5	0.7	1.7	0.8	3.7
Stop Delay (hr)	0.1	0.5	0.1	0.0	0.0	0.0	0.7
Stop Del/Veh (s)	11.9	7.0	3.3	0.0	0.0	0.0	2.2

Total Network Performance

Denied Delay (hr)	0.3
Denied Del/Veh (s)	1.1
Total Delay (hr)	1.3
Total Del/Veh (s)	4.4
Stop Delay (hr)	0.7
Stop Del/Veh (s)	2.4

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	EB	NB	SB
Directions Served	L	R	L	R
Maximum Queue (m)	18.6	36.5	19.1	5.8
Average Queue (m)	6.9	15.9	7.1	0.3
95th Queue (m)	14.4	28.2	15.8	2.4
Link Distance (m)		243.3		
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)	75.0		25.0	25.0
Storage Blk Time (%)			0	
Queuing Penalty (veh)			0	

Network Summary

Network wide Queuing Penalty: 0

Intersection	
Int Delay, s/veh	27.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	129	143	254	534	208	74
Future Vol, veh/h	129	143	254	534	208	74
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	750	0	250	-	-	250
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	89	89	67	67
Heavy Vehicles, %	2	2	2	2	5	2
Mvmt Flow	140	155	285	600	310	110

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1480	310	420	0	-	0
Stage 1	310	-	-	-	-	-
Stage 2	1170	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	~ 138	730	1139	-	-	-
Stage 1	744	-	-	-	-	-
Stage 2	295	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	~ 104	730	1139	-	-	-
Mov Cap-2 Maneuver	~ 104	-	-	-	-	-
Stage 1	558	-	-	-	-	-
Stage 2	295	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	140	3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1139	-	104	730	-	-
HCM Lane V/C Ratio	0.251	-	1.348	0.213	-	-
HCM Control Delay (s)	9.2	-	282.7	11.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	1	-	9.9	0.8	-	-

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

Summary of All Intervals

Run Number	1	10	2	3	4	5	6
Start Time	4:00	4:00	4:00	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90	90	90	90
Time Recorded (min)	60	60	60	60	60	60	60
# of Intervals	5	5	5	5	5	5	5
# of Recorded Intervals	4	4	4	4	4	4	4
Vehs Entered	1401	1366	1406	1366	1288	1286	1361
Vehs Exited	1402	1362	1399	1370	1288	1287	1363
Starting Vehs	8	13	12	14	21	16	13
Ending Vehs	7	17	19	10	21	15	11
Travel Distance (km)	586	567	589	568	540	540	566
Travel Time (hr)	16.8	15.9	16.6	15.1	14.7	14.4	15.2
Total Delay (hr)	4.1	3.6	3.7	2.8	3.0	2.7	2.9
Total Stops	369	390	378	365	333	325	353
Fuel Used (l)	52.6	50.8	52.4	49.7	47.3	47.5	50.3

Summary of All Intervals

Run Number	7	8	9	Avg
Start Time	4:00	4:00	4:00	4:00
End Time	5:30	5:30	5:30	5:30
Total Time (min)	90	90	90	90
Time Recorded (min)	60	60	60	60
# of Intervals	5	5	5	5
# of Recorded Intervals	4	4	4	4
Vehs Entered	1349	1340	1358	1352
Vehs Exited	1353	1334	1359	1352
Starting Vehs	15	14	16	12
Ending Vehs	11	20	15	15
Travel Distance (km)	565	557	568	565
Travel Time (hr)	15.6	15.5	15.4	15.5
Total Delay (hr)	3.3	3.4	3.1	3.3
Total Stops	350	378	369	362
Fuel Used (l)	50.0	49.4	50.2	50.0

Interval #0 Information Seeding

Start Time	4:00
End Time	4:30
Total Time (min)	30

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	319	345	363	342	333	318	334
Vehs Exited	313	347	362	338	337	326	333
Starting Vehs	8	13	12	14	21	16	13
Ending Vehs	14	11	13	18	17	8	14
Travel Distance (km)	134	142	153	143	141	134	139
Travel Time (hr)	3.7	3.8	4.4	3.7	4.3	3.5	3.6
Total Delay (hr)	0.8	0.7	1.1	0.6	1.2	0.6	0.6
Total Stops	84	98	87	91	82	73	74
Fuel Used (l)	11.8	12.4	13.7	12.3	12.8	11.9	12.0

Interval #1 Information Recording

Start Time	4:30
End Time	4:45
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	368	349	366	344
Vehs Exited	364	351	371	344
Starting Vehs	15	14	16	12
Ending Vehs	19	12	11	14
Travel Distance (km)	152	146	155	144
Travel Time (hr)	4.2	4.2	4.3	4.0
Total Delay (hr)	0.9	1.1	1.0	0.9
Total Stops	92	92	105	87
Fuel Used (l)	13.5	13.2	13.9	12.8

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	356	327	331	340	316	361	351
Vehs Exited	355	320	327	342	318	361	351
Starting Vehs	14	11	13	18	17	8	14
Ending Vehs	15	18	17	16	15	8	14
Travel Distance (km)	147	137	138	143	134	152	146
Travel Time (hr)	4.1	3.5	3.6	3.8	3.4	4.3	3.9
Total Delay (hr)	0.9	0.6	0.7	0.7	0.5	1.0	0.8
Total Stops	88	85	84	93	70	94	102
Fuel Used (l)	13.2	11.8	11.9	12.6	11.6	13.5	13.1

Interval #2 Information Recording

Start Time	4:45
End Time	5:00
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	338	335	345	340
Vehs Exited	337	328	332	337
Starting Vehs	19	12	11	14
Ending Vehs	20	19	24	15
Travel Distance (km)	141	138	139	142
Travel Time (hr)	3.8	4.0	3.8	3.8
Total Delay (hr)	0.7	1.0	0.7	0.8
Total Stops	99	92	98	90
Fuel Used (l)	12.4	12.7	12.3	12.5

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	354	322	349	341	292	285	347
Vehs Exited	357	323	352	345	294	284	346
Starting Vehs	15	18	17	16	15	8	14
Ending Vehs	12	17	14	12	13	9	15
Travel Distance (km)	149	133	148	141	122	120	144
Travel Time (hr)	4.0	3.4	4.0	3.9	3.1	3.1	4.0
Total Delay (hr)	0.7	0.5	0.7	0.8	0.5	0.5	0.9
Total Stops	101	93	98	100	82	72	86
Fuel Used (l)	13.0	11.9	13.0	12.3	10.3	10.3	12.8

Interval #3 Information Recording

Start Time	5:00
End Time	5:15
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	314	324	308	323
Vehs Exited	322	331	322	328
Starting Vehs	20	19	24	15
Ending Vehs	12	12	10	13
Travel Distance (km)	133	137	132	136
Travel Time (hr)	3.6	3.7	3.5	3.6
Total Delay (hr)	0.7	0.7	0.7	0.7
Total Stops	81	93	74	88
Fuel Used (l)	11.9	12.0	11.5	11.9

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	1	10	2	3	4	5	6
Vehs Entered	372	372	363	343	347	322	329
Vehs Exited	377	372	358	345	339	316	333
Starting Vehs	12	17	14	12	13	9	15
Ending Vehs	7	17	19	10	21	15	11
Travel Distance (km)	156	156	150	141	143	134	137
Travel Time (hr)	5.0	5.2	4.5	3.7	4.0	3.6	3.6
Total Delay (hr)	1.7	1.8	1.2	0.7	0.9	0.7	0.6
Total Stops	96	114	109	81	99	86	91
Fuel Used (l)	14.6	14.8	13.7	12.4	12.6	11.9	12.5

Interval #4 Information Recording

Start Time	5:15
End Time	5:30
Total Time (min)	15

Volumes adjusted by Growth Factors.

Run Number	7	8	9	Avg
Vehs Entered	329	332	339	345
Vehs Exited	330	324	334	343
Starting Vehs	12	12	10	13
Ending Vehs	11	20	15	15
Travel Distance (km)	139	135	142	143
Travel Time (hr)	3.9	3.6	3.8	4.1
Total Delay (hr)	0.9	0.6	0.7	1.0
Total Stops	78	101	92	95
Fuel Used (l)	12.2	11.4	12.5	12.9

2: Logy Bay Road & Snow's Lane Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.1	0.0	0.2	0.2	0.0	0.1	0.6
Denied Del/Veh (s)	3.7	0.5	3.1	1.2	0.4	3.2	1.7
Total Delay (hr)	1.5	0.2	0.3	0.3	0.1	0.0	2.3
Total Del/Veh (s)	42.8	4.2	4.4	2.0	1.1	0.5	6.2
Stop Delay (hr)	1.4	0.1	0.1	0.0	0.0	0.0	1.7
Stop Del/Veh (s)	40.9	3.3	1.5	0.0	0.0	0.0	4.4

Total Network Performance

Denied Delay (hr)	0.6
Denied Del/Veh (s)	1.7
Total Delay (hr)	2.6
Total Del/Veh (s)	6.9
Stop Delay (hr)	1.7
Stop Del/Veh (s)	4.6

Intersection: 2: Logy Bay Road & Snow's Lane

Movement	EB	EB	NB	NB	SB
Directions Served	L	R	L	T	R
Maximum Queue (m)	54.7	22.1	25.4	3.8	5.4
Average Queue (m)	21.2	9.6	12.3	0.1	0.5
95th Queue (m)	42.4	17.1	22.8	3.9	3.3
Link Distance (m)		243.3		99.1	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (m)	75.0		25.0		25.0
Storage Blk Time (%)	0		0		
Queuing Penalty (veh)	0		1		

Network Summary

Network wide Queuing Penalty: 1

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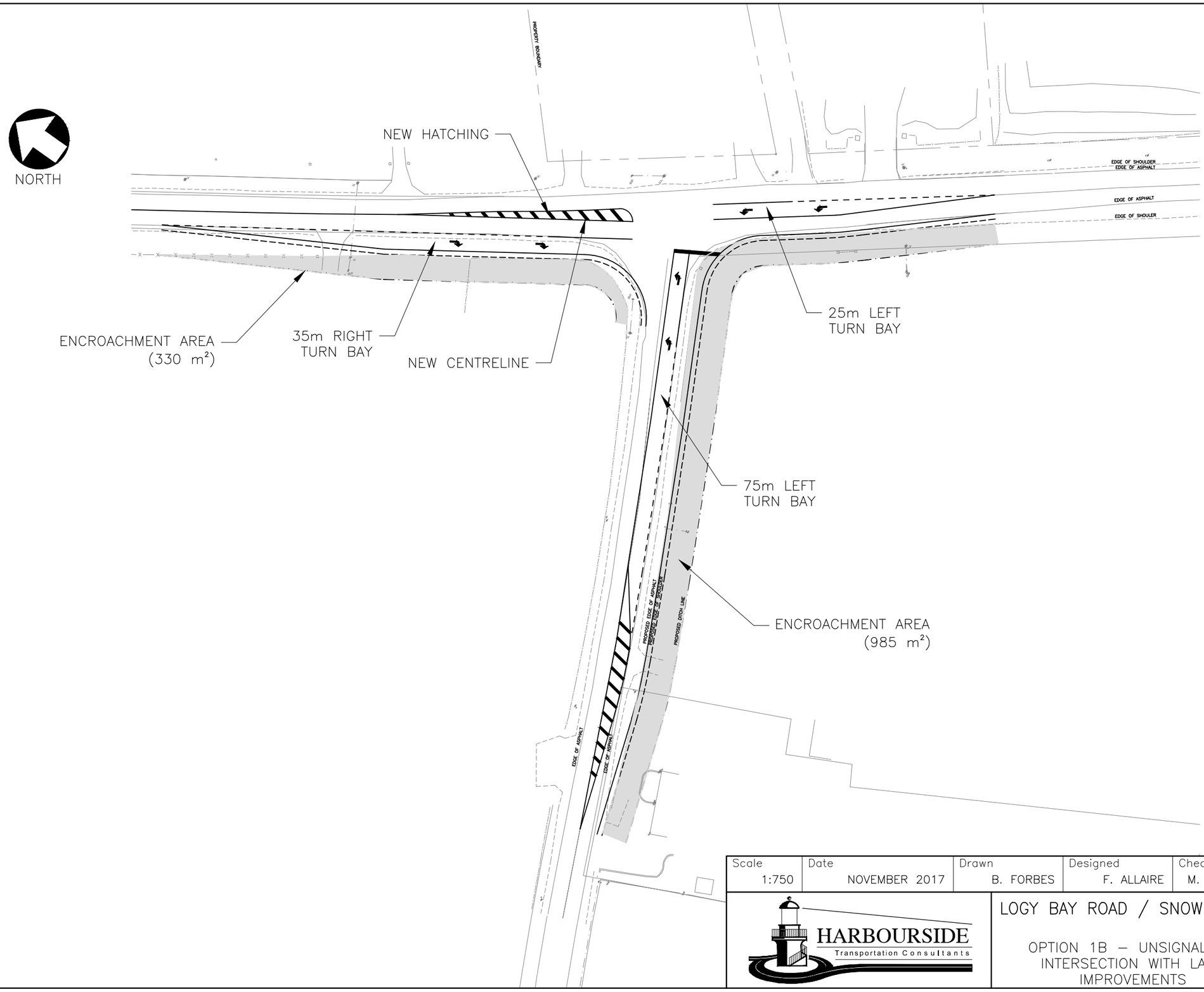
Appendix B

Conceptual Drawings



Scale	Date	Drawn	Designed	Checked	Approved	Contract
1:750	NOVEMBER 2017	B. FORBES	F. ALLAIRE	M. MacDONALD	R. KING	172055

HARBOURSIDE
Transportation Consultants

LOGY BAY ROAD / SNOW'S LANE

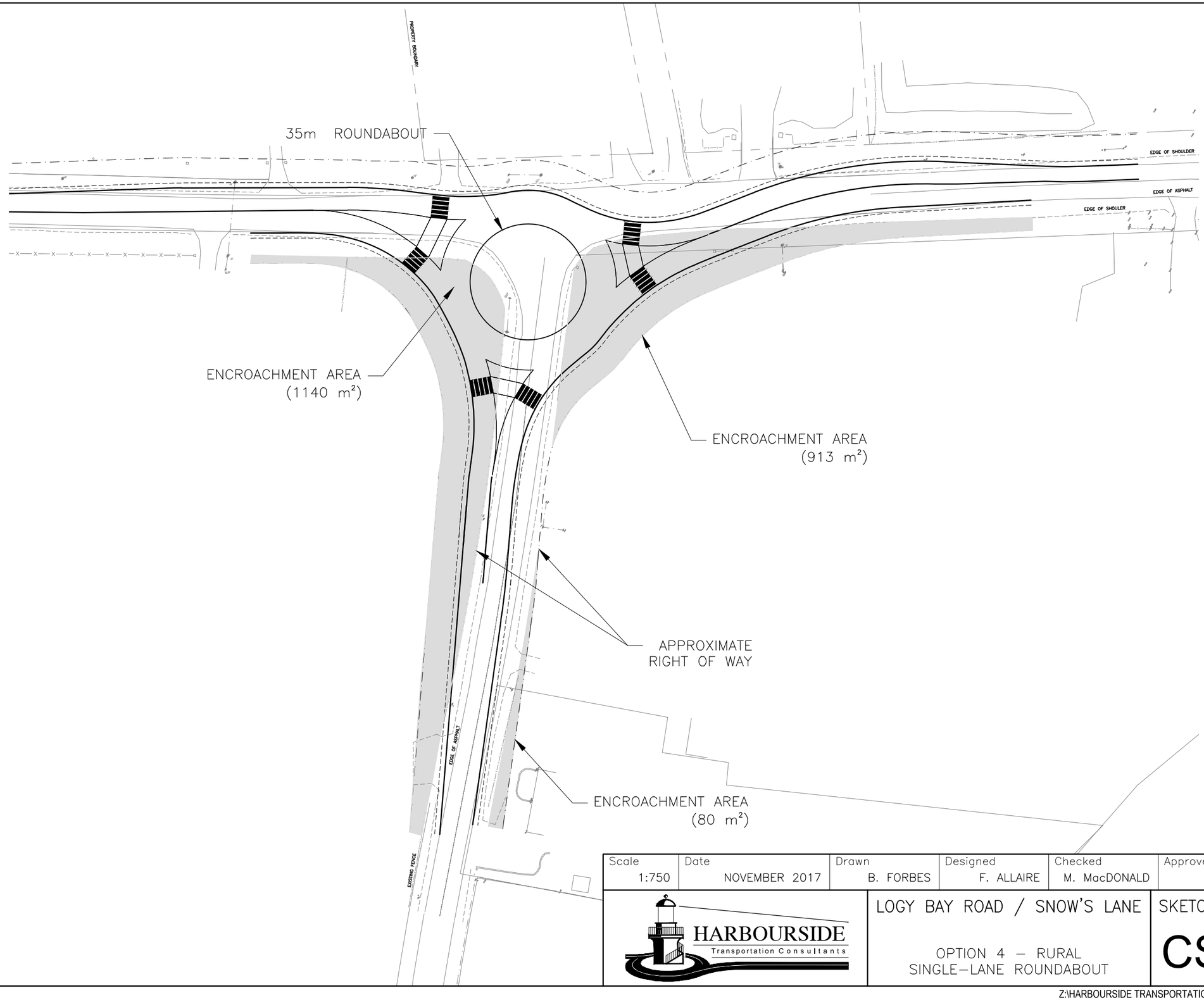
OPTION 1B – UNSIGNALIZED INTERSECTION WITH LANE IMPROVEMENTS

SKETCH No.

CSK - 01

Z:\HARBOURSIDE TRANSPORTATION CONSULTANTS\PROJECTS\172055
LBMCOC TRANSPORTATION STUDY\CAD\DRAWINGS

NORTH



Scale	Date	Drawn	Designed	Checked	Approved	Contract
1:750	NOVEMBER 2017	B. FORBES	F. ALLAIRE	M. MacDONALD	R. KING	172055

HARBOURSIDE
Transportation Consultants

LOGY BAY ROAD / SNOW'S LANE

OPTION 4 – RURAL
SINGLE–LANE ROUNDABOUT

SKETCH No.

CSK - 02

Z:\HARBOURSIDE TRANSPORTATION CONSULTANTS\PROJECTS\172055
LBMCOC TRANSPORTATION STUDY\CAD\DRAWINGS

Suite 306 - Terrace on the Square
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St. John's, NL, A1B 4J9
Tel: (709) 579.6435 ◆ www.harboursideengineering.ca

Appendix C

Traffic Signal Warrant Analysis

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Sep 26, 2017**
Side Street (name)	**Snow's Lane**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

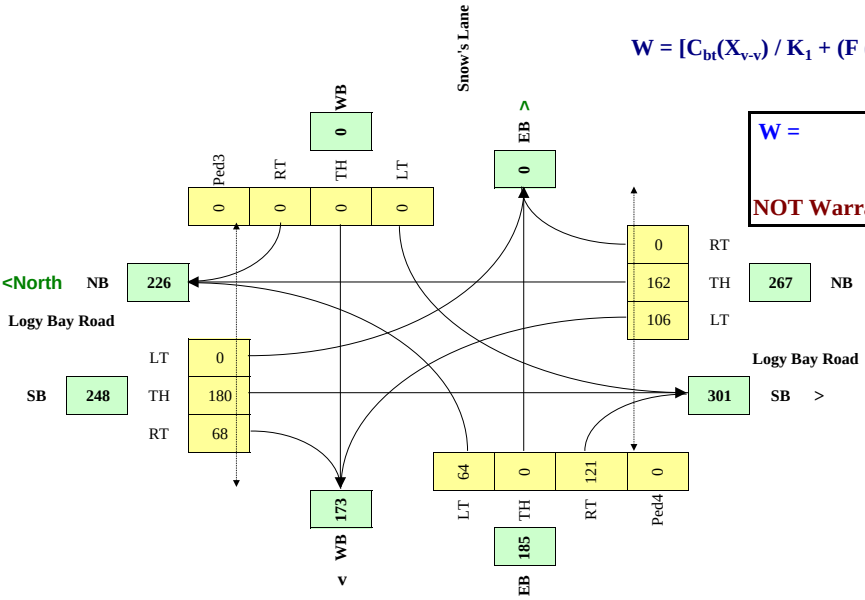
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1		1				1	
Logy Bay Road	SB				1			1	
Snow's Lane	WB								
Snow's Lane	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	3.0%	n	0.0
Snow's Lane	EW		3.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	30	86	0	0	221	49	0	0	0	29	0	90	0	0	0	0
8:00 - 9:00	59	85	0	0	308	78	0	0	0	36	0	175	0	0	0	0
11:00 - 12:00	81	83	0	0	116	72	0	0	0	57	0	104	0	0	0	0
12:00 - 13:00	119	129	0	0	128	84	0	0	0	74	0	131	0	0	0	0
16:00 - 17:00	160	312	0	0	164	70	0	0	0	95	0	117	0	0	0	0
17:00 - 18:00	184	275	0	0	144	52	0	0	0	92	0	110	0	0	0	0
Total (6-hour peak)	**633**	**970**	**0**	**0**	**1,081**	**405**	**0**	**0**	**0**	**383**	**0**	**727**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**106**	**162**	**0**	**0**	**180**	**68**	**0**	**0**	**0**	**64**	**0**	**121**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	40	40	0
		Veh	*Ped*

NOT Warranted

2005 Canadian Matrix Traffic Signal Warrant Analysis

Main Street (name)	**Logy Bay Road**	**Direction (EW or NS)**	**NS**	**Date:**	**Future (25% growth)**
Side Street (name)	**Snow's Lane**	**Direction (EW or NS)**	**EW**	**City:**	**LBMCOC, NL**
Quadrant (if appl)					

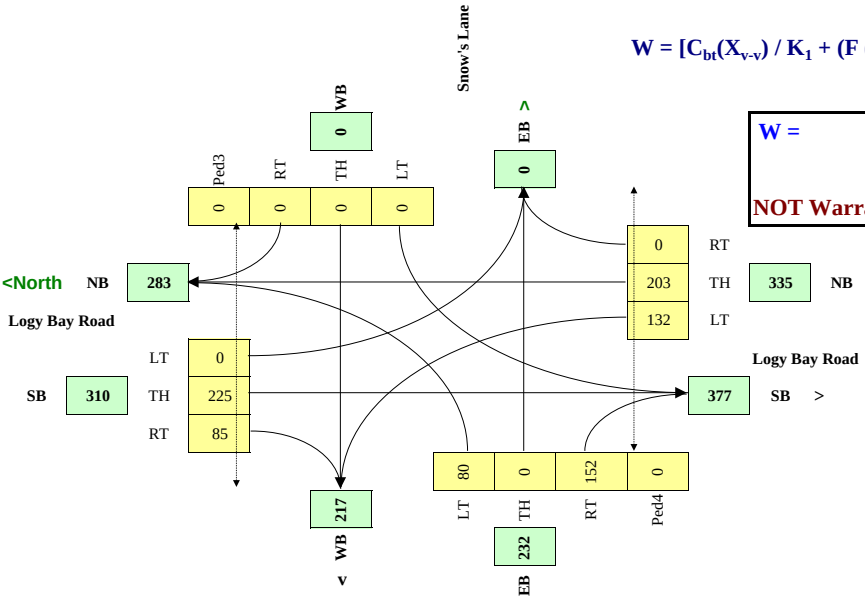
Lane Configuration		Excl LT	Th & LT	Through or Th+RT+LT	Th & RT	Excl RT	Upstream Signal (m)	# of Thru Lanes	
Logy Bay Road	NB	1		1				1	
Logy Bay Road	SB				1			1	
Snow's Lane	WB								
Snow's Lane	EB			1					

Demographics		
Elementary School	(y/n)	n
Senior's Complex	(y/n)	n
Pathway to School	(y/n)	n
Metro Area Population	(#)	1978
Central Business District	(y/n)	n

Other input		Speed (Km/h)	Trucks %	Bus Rt (y/n)	Median (m)
Logy Bay Road	NS	50	3.0%	n	0.0
Snow's Lane	EW		3.0%	n	

Traffic Input	**NB**			**SB**			**WB**			**EB**			**Ped1 NS**	**Ped2 NS**	**Ped3 EW**	**Ped4 EW**
	LT	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**LT**	**Th**	**RT**	**W Side**	**E Side**	**N Side**	**S side**
7:00 - 8:00	38	108	0	0	277	62	0	0	0	37	0	113	0	0	0	0
8:00 - 9:00	74	107	0	0	385	98	0	0	0	45	0	219	0	0	0	0
11:00 - 12:00	102	104	0	0	145	90	0	0	0	72	0	130	0	0	0	0
12:00 - 13:00	149	162	0	0	160	105	0	0	0	93	0	164	0	0	0	0
16:00 - 17:00	200	390	0	0	205	88	0	0	0	119	0	147	0	0	0	0
17:00 - 18:00	230	344	0	0	180	65	0	0	0	115	0	138	0	0	0	0
Total (6-hour peak)	**793**	**1,215**	**0**	**0**	**1,352**	**508**	**0**	**0**	**0**	**481**	**0**	**911**	**0**	**0**	**0**	**0**
Average (6-hour peak)	**132**	**203**	**0**	**0**	**225**	**85**	**0**	**0**	**0**	**80**	**0**	**152**	**0**	**0**	**0**	**0**

Average 6-hour Peak Turning Movements



$$W = [C_{bt}(X_{v\text{-}v}) / K_1 + (F\,(X_{v\text{-}p})\,L) / K_2] \times C_i$$

W =	64	64	0
		Veh	*Ped*

NOT Warranted

Suite 306 - Terrace on the Square
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Tel: (709) 579.6435 ◆ www.harboursideengineering.ca

Appendix D

Arcady Results

Junctions 8

ARCADY 8 - Roundabout Module

Filename: 172055_Roundabout Analysis.arc8
Path: Z:\Harbourside Transportation Consultants\Projects\172055 LBMCOC Transportation Study\Project Files\02 Analysis
Report generation date: 03/11/2017 9:33:32 AM

Summary of intersection performance

	AM						PM					
	Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS	Queue (PCE)	Delay (s)	V/C Ratio	LOS	Intersection Delay (s)	Intersection LOS
	A1 - 2017 Existing Volumes											
Snow's Lane	0.33	4.92	0.25	A	4.95	A	0.28	4.27	0.22	A	6.77	A

Logy Bay Road - Northbound	0.18	3.65	0.15	A			1.61	8.46	0.62	A		
Logy Bay Road - Southbound	0.73	5.44	0.42	A			0.30	4.44	0.23	A		
	A1 - Future Volumes											
Snow's Lane	0.48	5.80	0.33	A			0.39	4.76	0.28	A		
Logy Bay Road - Northbound	0.23	3.83	0.19	A	5.94	A	3.55	15.16	0.79	C	10.92	B
Logy Bay Road - Southbound	1.13	6.76	0.53	A			0.43	5.01	0.30	A		

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle. Intersection LOS and Intersection Delay are demand-weighted averages.

"D1 - Future Volumes, AM" model duration: 8:00 AM - 9:30 AM
"D2 - Future Volumes, PM" model duration: 5:00 PM - 6:30 PM
"D3 - 2017 Existing Volumes, AM" model duration: 8:00 AM - 9:30 AM
"D4 - 2017 Existing Volumes, PM " model duration: 5:00 PM - 6:30 PM

Run using Junctions 8.0.4.487 at 03/11/2017 9:33:32 AM

File summary

Title	Logy Bay Rd - Snow's Ln
Location	Logy Bay-Middle Cove-Outer Cove
Site Number	
Date	02/11/2017
Version	
Status	(new file)

Identifier	
Client	
Jobnumber	
Analyst	hec45
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	V/C Ratio Threshold	Average Delay Threshold (s)	Queue Threshold (PCE)
7.00	✓		N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCE	PCE	perHour	s	-Min	perMin

(Default Analysis Set) - 2017 Existing Volumes, PM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?

Warning	Pedestrian Crossing	Snow's Lane - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Northbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default settings only. Is this correct?
Warning	Pedestrian Crossing	Logy Bay Road - Southbound - Unsignalled Pedestrian Crossing Details	Pedestrian crossing uses default flow of 0. Is this correct?

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
(Default Analysis Set)	ARCADY			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
2017 Existing Volumes, PM	2017 Existing Volumes	PM		ONE HOUR	17:00	18:30	90	15		

Intersection Network

Intersections

Intersection	Name	Intersection Type	Leg Order	Grade Separated	Large Roundabout	Intersection Delay (s)	Intersection LOS
1	(untitled)	Roundabout	1,2,3			6.77	A

Intersection Network Options

Driving Side	Lighting
Right	Normal/unknown

Legs

Legs

Name	Leg	Name	Description
Snow's Lane	1	Snow's Lane	
Logy Bay Road - Northbound	2	Logy Bay Road - Northbound	
Logy Bay Road - Southbound	3	Logy Bay Road - Southbound	

Capacity Options

Name	Minimum Capacity (PCE/hr)	Maximum Capacity (PCE/hr)
Snow's Lane	0.00	99999.00

Logy Bay Road - Northbound	0.00	99999.00
Logy Bay Road - Southbound	0.00	99999.00

Roundabout Geometry

Name	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
Snow's Lane	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Northbound	3.00	4.25	8.00	30.00	40.00	30.00	
Logy Bay Road - Southbound	3.00	4.25	8.00	30.00	40.00	30.00	

Pedestrian Crossings

Name	Crossing Type
Snow's Lane	Unsignalled Pedestrian Crossing
Logy Bay Road - Northbound	Unsignalled Pedestrian Crossing
Logy Bay Road - Southbound	Unsignalled Pedestrian Crossing

Unsignalled Pedestrian Crossing Crossings

Name	Space between crossing and intersection entry (PCE)	Vehicles queueing on exit (PCE)	Central Refuge	Crossing Data Type	Crossing length (m)	Crossing time (s)	Crossing length (entry side) (m)	Crossing time (entry side) (s)	Crossing length (exit side) (m)	Crossing time (exit side) (s)
Snow's Lane	0.00	0.00		Distance	0.00	0.00				

Logy Bay Road - Northbound	0.00	0.00		Distance	0.00	0.00				
Logy Bay Road - Southbound	0.00	0.00		Distance	0.00	0.00				

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Name	Enter slope and intercept directly	Entered slope	Entered intercept (PCE/hr)	Final Slope	Final Intercept (PCE/hr)
Snow's Lane		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Northbound		(calculated)	(calculated)	0.543	1180.432
Logy Bay Road - Southbound		(calculated)	(calculated)	0.543	1180.432

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCE Factor for a Truck (PCE)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	Truck Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Name	Profile Type	Use Turning Counts	Average Demand Flow (PCE/hr)	Flow Scaling Factor (%)
Snow's Lane	ONE HOUR	✓	217.00	100.000
Logy Bay Road - Northbound	ONE HOUR	✓	630.00	100.000
Logy Bay Road - Southbound	ONE HOUR	✓	225.00	100.000

Pedestrian Flows

General Flows Data

Name	Profile Type	Average Pedestrian Flow (Ped/hr)
Snow's Lane	ONE HOUR	0.00
Logy Bay Road - Northbound	ONE HOUR	0.00
Logy Bay Road - Southbound	ONE HOUR	0.00

Results

Results Summary for whole modelled period

Name	Max V/C Ratio	Max Delay (s)	Max Queue (PCE)	Max 95th percentile Queue (PCE)	Max LOS
Snow's Lane	0.22	4.27	0.28	~1	A
Logy Bay Road - Northbound	0.62	8.46	1.61	1.00	A

Logy Bay Road - Southbound	0.23	4.44	0.30	~1	A

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Tel: (709) 579.6435 ◆ www.harboursideengineering.ca

Appendix E

Cost Estimates

Option 1B Unsignalized with Lane Improvements

Item	Quantity	Unit	Price/unit	Total Price
Excavation	4370	m^3	$ 18.00	$ 78,660.00
Ditching	1325	m^3	$ 15.00	$ 19,875.00
Backfill	4370	m^3	$ 12.00	$ 52,440.00
40mm Base	60	t	$ 125.00	$ 7,500.00
40mm Top	60	t	$ 125.00	$ 7,500.00
Granular A (100mm)	140	t	$ 26.00	$ 3,640.00
Granular B (200mm)	280	t	$ 21.00	$ 5,880.00
Signage and Pavement Markings	1	LS	$ 10,000.00	$ 10,000.00
Lighting	1	LS	$ 10,000.00	$ 10,000.00
		Subtotal		$ 195,495.00
		Contingency 20%		$ 39,099.00
		Total		**$ 234,594.00**
Traffic Signals (optional)	1	LS	$ 200,000.00	$ 200,000.00
		Subtotal with Signals		$ 395,495.00
		Contingency 20%		$ 79,099.00
		Total		**$ 474,594.00**

Option 4 Rural Single-Lane Roundabout

Item	Quantity	Unit	Price/unit	Total Price
Excavation	6400	m^3	$ 18.00	$ 115,200.00
Ditching	3750	m^3	$ 15.00	$ 56,250.00
Backfill	6400	m^3	$ 12.00	$ 76,800.00
40mm Base	125	t	$ 125.00	$ 15,625.00
40mm Top	125	t	$ 125.00	$ 15,625.00
Granular A (100mm)	290	t	$ 26.00	$ 7,540.00
Granular B (200mm)	580	t	$ 21.00	$ 12,180.00
Curb	460	LM	$ 125.00	$ 57,500.00
Central and Splitter Islands - Topsoil/Seeding	555	m^2	$ 10.00	$ 5,550.00
Signage and Pavement Markings	1	LS	$ 10,000.00	$ 10,000.00
Lighting	1	LS	$ 40,000.00	$ 40,000.00
			Subtotal	$ 412,270.00
			Contingency 20%	$ 82,454.00
			Total	**$ 494,724.00**

Appendix M

Cost Estimates

PROJECT TITLE:	LBMCOC Transportation Study
	Snow's Lane Assessment
PROJECT NUMBER:	172055

CONTRACT SUMMARY

CONTRACT (Civil Works)

CONTRACT COST:	$222,292.00

MISC. CONTRACT

MISC. CONTRACT COST:	$16,000.00

ROUNDABOUT:

ROUNDABOUT COST:	$412,270.00

PROJECT SUBTOTAL:	$650,562.00
CONTINGENCY (20%)**:**	$130,112.40
ENGINEERING DESIGN (10%) :	$78,067.44
LAND ACQUISITION:	$0.00
PROJECT TOTAL (Tax Not Included):	**$858,741.84**

Appendix N

Trail Development Plan

TRANSMISSION LINE EASEMENT TO JACK BYRNE ARENA, TORBAY
SUBJECT TO DESIGN APPROVAL BY NL POWER.

CROSSING

SAFETY NETTING REQUIRED AT
EDGE OF GOLF COURSE

BRIDGE

PROPOSED TRAIL FOR
FUTURE CONSIDERATION

OVERHEAD WIRE

CROSSING

CROSSING

CROSSING

FUTURE TRAIL RIGHT-OF-WAY

PROVIDE
RIGHT-OF-WAY

CROSSING

CROSSING

KELLY PARK
JUSTINA CENTRE

PETER'S PATH
INFORMAL MUNICIPAL PATH

ST. FRANCIS OF ASSISI
SCHOOL AND CHURCH

BRIDGE

FUTURE TRAIL TO OUTER COVE

CROSSING

BRIDGE

EXISTING GCA WALK:
CLOVELLY TRAIL

FIREHALL

LOGY BAY, MIDDLE COVE, OUTER COVE
TOWN HALL

PROVIDE
RIGHT-OF-WAY

CROSSING

PROVIDE RIGHT-OF-WAY

Soldiers Brook
SOLDIERS BROOK POND
w/L 68.2
TORBAY ROAD
PINE LINE
OLD PINE LINE
SANDALWOOD DRIVE
MIDDLE LEDGE DRIVE
OLD BOG ROAD
EXISTING WETLAND RETENTION AREA
LOT CONVEYED TO TOWN
KELLICK DRIVE
ISLAND POND
CLOVELLY EXECUTIVE GOLF COURSE (BLACK DUCK)
OUTER COVE BROOK
CLUBHOUSE
WAL-MART
CLOVELLY CHAMPIONSHIP GOLF COURSE (OSPREY)
CITY OF ST. JOHN'S / TOWN OF LOGY BAY-MIDDLE COVE-OUTER COVE
STICK POND BROOK
STICK POND
NEIGHBOURHOOD PARK
EX. WALKING TRAIL
EX. DESIGNATED WETLAND
CLOVELLY'S RIDING STABLES
STICK POND ROAD
ASHKAY DRIVE
SNOW'S LANE
TANTUM PLACE
SYMMONDS ROAD
OUTER COVE ROAD
OWENS ROAD
LOWER ROAD
LUAM DRIVE
NUGENT'S LANE
LAUREL HILLOW
POWER'S FARM ROAD
POWER'S LANE
GLENWOOD PL
DEVEREAUX LANE
GLOVER DALEY CLOSE
LOGY BAY ROAD
MARINE DRIVE
RED ROCKS DRIVE
RED CLIFF ROAD
KAYAKNOR'S LANE
CADIGAN'S ROAD
VIEWS PARK
LAVENDER DRIVE
CRANFORD PLACE
CORPORAL JAMIE MURPHY STREET
HERBERT PLACE
RUR
RLD
RSA
RMD
PU
A
OC

NOTES

DO NOT SCALE FROM DRAWINGS. CONTRACTOR TO VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE, BEFORE PROCEEDING WITH THIS WORK.

DESIGNS ARE SITE-SPECIFIC AND SHOULD ONLY BE USED IN THE LOCATIONS FOR WHICH THEY WERE INTENDED.

DRAWINGS REMAIN THE PROPERTY OF THE GRAND CONCOURSE AUTHORITY.

LEGEND

- MUNICIPAL BOUNDERY
- PROPERTY BOUNDERY
- EXISTING WALKING TRAIL
- PROPOSED WALKING TRAIL
- PROPOSED ROADSIDE LINK
- PROPOSED FUTURE TRAIL
- ZONING BOUNDERIES
- SAFETY NET REQUIRED
- EXISTING RESIDENTIAL LOT
- PROPOSED RESIDENTIAL LOT
- PROPOSED RIGHT-OF-WAY
- REST AREA
- POINT OF INTEREST
- PEDESTRIAN FOOTBRIDGE
- MARSH
- TRAIL HEAD
- ROAD CROSSING
- PROPOSED PARKING LOCATION

NOTES:
1. ALL PROPOSED TRAIL ROUTES ARE SUBJECT TO CHANGE DUE TO DEVELOPMENT FEASIBILITY AND LAND OWNERSHIPS.

No.	By	DESCRIPTION	Date
A			06/ /

REVISIONS

DETAIL SYMBOLS — A. DETAIL NUMBER; B. SHEET LOCATION; C. DETAIL SHEET

GRAND CONCOURSE AUTHORITY
439 Allandale Road
St. John's, Newfoundland
Canada A1B 4E2
Telephone (709) 737-1077
Fax (709) 737-1014

Logy Bay Middle Cove Outer Cove

project: LOGY BAY MIDDLE COVE OUTER COVE

drawing: TRAIL DEVELOPMENT PLAN FINAL CONCEPT

designed	drawn	scale
CL	CL	1:300
approved	date	sheet
project no.		L1 1of R A

Plot Scale:1:1

GCA – A0

Appendix O

Traffic Calming Policy

Logy Bay-Middle Cove-Outer Cove
Traffic Calming Policy

Prepared For:
Town of Logy Bay-Middle Cove-Outer Cove
744 Logy Bay Road
LCMCOC, NL
A1K 3B5

PREPARED BY:
Harbourside Transportation Consultants

CONTACT:
Robin King, P. Eng
Email: rking@harboursideengineering.ca
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Michael MacDonald, P. Eng
Email: mmacdonald@harboursideengineering.ca
Tel: (902) 405.4696

08 May 2018

Status: Draft Report
For Client Review Only

HARBOURSIDE
Transportation Consultants

HTC File #172055

HARBOURSIDE
Transportation Consultants

Project Name: Town of Logy Bay-Middle Cove-Outer Cove Transportation Study

Project Number: 172055

Client:	Town of Logy Bay-Middle Cove-Outer Cove
Status:	Draft Report – Issued for Client Review – May 08, 2018

Engineering Seal

Permit to Practice

	Prepared By:	Reviewed By:	Approved By:
Name:	F. Allaire	M. MacDonald	R. King
Initial:			
Date:	May 07, 2018	May 07, 2018	May 07, 2018

Table of Contents

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Appendices

1.0 Introduction

Residential roadways are meant to be shared in relative safety and harmony by various users including pedestrians, cyclists and motorists. In neighbourhoods with this dynamic, roadways feel safe and are a pleasant to walk, cycle and drive on. These are the types of roadways and neighbourhoods that the Town of Logy Bay-Middle Cove-Outer Cove strives to create for its residents.

For a myriad of reasons, many roadways in different neighbourhoods experience problems, both real and perceived, related to traffic volumes, traffic speeds, roadway geometry and traffic operations. As a result of these issues, residential roadways can be perceived as not being pleasant or safe for children, pedestrians, cyclists or motorists alike. Where such situations exist, residents and other members of the community, demand that the governing authority, such as the community's Council and/or Staff, take action to resolve the traffic and/or safety issues.

Traffic and safety problems on residential roadways are typically addressed though traffic calming. The Institute of Transportation Engineers (ITE) defines traffic calming as "the combination of mainly physical measures that reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users".

Municipalities often recognize the benefits in addressing traffic and safety issues in a consistent and transparent manner. Many communities, for example, will employ warrant systems for traffic signals and for the installation of pedestrian crossings. The warrant systems are established to ensure these controls are only put in place when needed in a safe and consistent manner. Dealing with traffic and safety issues in residential neighbourhoods is no different. As a result, many organizations throughout Canada and North America are putting "Traffic Calming" policies in place to deal with neighbourhood traffic and safety concerns in a consistent and appropriate manner.

Key resources used in developing the policy include the Transportation Association of Canada's (TAC) *Canadian Guide to Neighbourhood Traffic Calming*, the City of St. John's *Development of Traffic Calming Policy & Warrant*, the Nation Association of City Transportation Officials' (NACTO) *Urban Street Design Guide*, and the ITE traffic calming website (http://www.ite.org/traffic/).

2.0 Traffic Calming Toolbox

The following sections provide a description of different traffic calming measures that are commonly applied. It should be noted that these sections discuss some of the most common measures and do not include an exhaustive list of all traffic calming measures available.

These measures can be implemented alone or in combination with each other to create a traffic calming plan. Individual measures have different applications from controlling speed and/or reducing volumes to providing protection for pedestrians and cyclists. The measures are separated into four categories: vertical deflections, horizontal deflections, obstructions and signage.

A summary table of the traffic calming measures with the approximate cost, location and spacing of the devices can be found in Appendix A.

2.1 Vertical Deflections

Vertical deflections are primarily intended to reduce vehicle speeds by creating unpleasant sensations when traversing the traffic calming measure. Reducing speeds using vertical deflections can also have potential secondary effects such as reducing traffic volumes, reducing conflicts and enhancing the environment for non-motorists.

Speed Humps: A speed hump is a raised rounded pavement section which deflects both wheels of a vehicle forcing motorists to slow down to drive over the speed hump. Speed humps are often placed in series and should not be used on collector roadways, transit or emergency response routes.

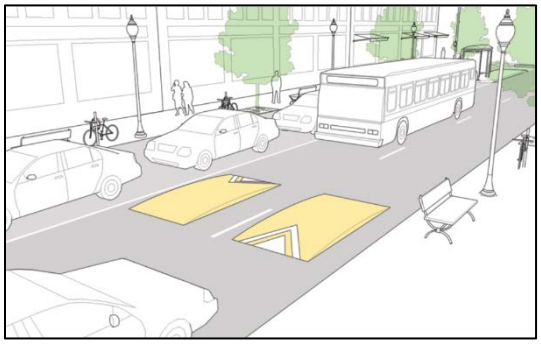
Approximate Cost: $2,000 per speed hump

Speed Tables: A speed table is a raised pavement section which deflects both wheels of a vehicle forcing motorists to slow down to drive over the speed hump. Speed tables are longer than speed humps and have a flat top. Speed tables can be used on collector roadways, transit or emergency response routes. Speed tables can be designed as raised crosswalks and are often combined with curb extensions.

Approximate Cost: $750/linear meter

Speed Cushions: Speed cushions are speed humps or tables that include longitudinal gaps to allow wide wheel base vehicles to avoid the raised sections. Speed cushion allow larger vehicles (buses and emergency vehicles) pass over the cushions without having to reduce speeds while reducing passenger vehicle speeds. Speed cushions are typically used on emergency response routes and are often placed in series.

Approximate Cost: $1700/cushion for portable cushions



Raised Crosswalk: A raised crosswalk is a marked pedestrian crosswalk at an intersection or midblock crossing constructed at a higher elevation than the roadway. Raised crosswalks typically consist of crosswalks installed on speed humps or tables. Raised crosswalks increase pedestrian visibility and reduce vehicle speeds.

Approximate Cost: $5,000 to $20,000

Transverse Rumble Strips: Rumble strips are patterns of raised buttons, bars or grooves in the pavement closely spaced at regular intervals on the roadway. As a vehicle travel over rumble strips, both noise and vibration are created. Rumble strips are used to alert motorists to unusual conditions and encourage drivers to reduce speeds.

Approximate Cost: $500 to $2,000 per lane

Textured Crosswalks: A textured crosswalk is a crosswalk incorporating a textured and/or patterned surface that contrast with the roadway. Textured crosswalks accentuate the crossing location for pedestrians.

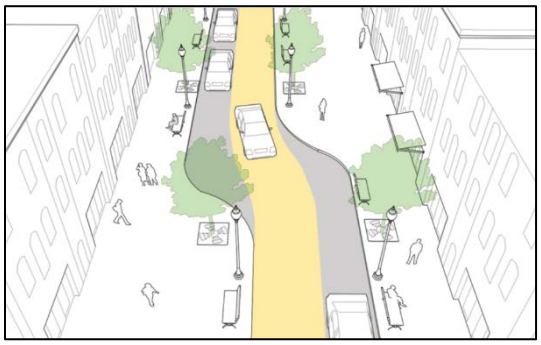
Approximate Cost: $100/m2

2.2 Horizontal Deflections

Horizontal deflections are primarily intended reduce traffic volumes by discouraging short-cutting or through traffic. Potential secondary effects of horizontal measures include reducing vehicle speeds, reducing conflicts and enhancing the environment for non-motorists.

Chicanes: Chicanes are a series of curb extensions on alternating sides of the roadway. Chicanes narrow the roadway cross section, requiring vehicles to reduce speed to negotiate from one side of the roadway to the other as they travel through the chicanes.

Approximate Cost: $5,000 to $15,000 per chicane



Curb Extensions: Curb extensions are a horizontal extension of the curb into the roadway. Curb extensions narrow the roadway cross section, creating safer and shorter crossing distances for pedestrians, while improving pedestrian visibility. Curb extensions can also reduce speeds by narrowing the roadway.

Approximate Cost: $10,000 to $20,000

On-Street Parking: Parallel on-street parking reduces the roadway width available for vehicle travel. Vehicles will typically reduce spaces to narrower travel lanes.

Approximate Cost: $200 to $500

Traffic Calming Circles: A traffic calming circle is a raised island located in the centre of the intersection. Traffic calming circles require motorists to travel through the intersection in a counter-clockwise direction around the island. Traffic calming circles allow traffic to flow freely through an indirect path at an intersection, forcing motorists to slow down and yield before entering the intersection. It should be noted that a traffic calming circle is not a roundabout, a roundabout is larger and has raised median islands on all approaches.

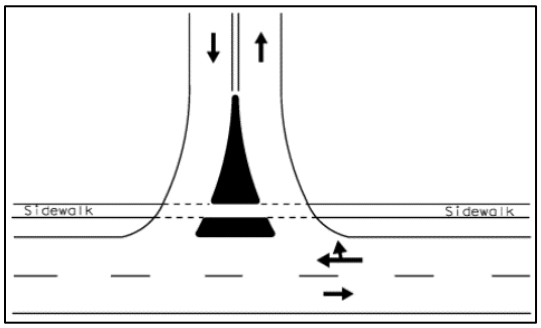
Approximate Cost: $15,000 to $17,000

2.3 Obstructions

Obstructions are primarily intended reduce traffic volumes by discouraging short-cutting or through traffic. Obstructions are measures that are typically used an intersections or mid-block locations which obstruct specific vehicle movements. Potential secondary effects of obstructions include reducing conflicts and enhancing the environment for non-motorists.

Directional or Full Roadway Closures: A roadway closures consist of placing a physical device in the roadway to prohibit one direction of travel (directional closure) or prohibit access entirely (full closure). Closures can be used to prevent through traffic on a roadway. Typically, bicyclists and pedestrians are still permitted to enter at these enclosures.

Approximate Cost: $3,000 to $35,000



Right-in/Right-out Island: Right-in/right-out islands are raised triangular islands at an intersection approach that prevent left-turning movements in and out of the approach. Right-in/right-out islands can be used to prevent through traffic on a roadway.

Approximate Cost: $7,000 to $15,000

2.4 Signage

The primary function of regulatory signs is to regulate traffic movements; however, several regulatory signs are often used as traffic calming measures. It should be noted that using regulatory signs for traffic calming can be ineffective and create compliance problems without proper police enforcement. Non-regulatory signs, such as warning signs, can be used to supplement other traffic calming measures.

Maximum Speed Sign: The Maximum Speed sign indicates the maximum legal vehicle speed permitted on the roadway. Other signage including the School Area sign or Playground sign can accompany the Maximum Speed sign. The Maximum Speed sign which is typically placed on the right-side of the roadway.

Approximate Cost: $500 per sign (includes installation)

Radar Speed Display Signs: Radar speed display signs are used to inform motorists of their current speed and encourage them to reduce their speed to the posted speed limit. Radar speed display sign are typically installed alongside a Maximum Speed sign.

Approximate Cost: $7,000 per unit

Through Traffic Prohibited Sign: The Through Traffic Prohibited sign is used to prohibit traffic that is short-cutting through on a roadway. These signs are sometimes accompanied by an additional tab sign indicating days and hours that the prohibition is in effect.

Approximate Cost: $500 per sign (includes installation)

Speed Bumps Ahead Sign: The Speed Bumps Ahead sign is used to alert motorists of the presence of speed bumps, humps, cushions or tables. The sign aims to inform to motorists that they should to reduce their speed. The signs could potentially deter motorist from using this route as a short-cutting roadway. The sign is typically placed on the right side of the road in advance of the speed hump, cushion or table.

Approximate Cost: $500 per sign (includes installation)

Traffic-Calmed Neighbourhood Sign: The traffic-calmed neighbourhood sign is used to advise motorists that traffic calming measures are in place throughout a neighbourhood. The sign is used to increase motorists' awareness of traffic calming measures.

Approximate Cost: $500 per sign (includes installation)

3.0 Traffic Calming Methodology

A methodology to manage residents' requests for traffic calming in a transparent and consistent manner was developed. Available literature, guidelines and best practices were reviewed to guide the development of this methodology.

The following methodology is suggested to manage traffic calming requests throughout the Town of LBMCOC. The process includes the following ten steps, details for the individual steps are discussed in the following sections.

- Step 1 – Initial request for traffic calming
- Step 2 – Initial screening process
- Step 3 – Prioritizing requests
- Step 4 – Council approval and funding allocation
- Step 5 – Initial resident support
- Step 6 – Traffic calming plan
- Step 7 – Final resident support
- Step 8 – Final Council approval
- Step 9 – Design, tender and construction
- Step 10 – Follow up

3.1 Step 1 – Initial Request for Traffic Calming

The traffic calming process is most often initiated by a resident or group of residents representing a neighbourhood. The concerns raised by residents are most often related to the operating speeds and/or the traffic volumes on a particular roadway.

In order to begin the traffic calming process, the resident(s) concern must be submitted using a standard application form and sent to the appropriate Town staff. A standard form to request traffic calming on roadway, the "Traffic Calming Request Form", was developed for the Town of LBMCOC and can be found in Appendix B. The form should be made available on the Town's webpage, or in hard copy at the appropriate Town facility. The form requires the following information:

- Applicant's name and contact information
- Date of application
- Area that relates to the nature of the concern
- Traffic concern
- Specific location of concern
- Further details about traffic concerns
- Suggested traffic calming solutions
- Willingness to parting in a focus group

3.2 Step 2 – Initial Screening Process

As traffic calming requests are received by the Town, the individual requests will be reviewed through an initial screening process to identify if the roadway under consideration qualifies for traffic calming. The initial screening process considers the classification of the roadway, grade, collision history, average daily traffic volumes and operating speeds. The specific considerations for each category are described below:

- Roadway Classification: Traffic calming measures are appropriate for use on roadways classified as local and collector roadways. Traffic calming measures should not be implemented on roadways classified as arterials or freeways. Under the Town's roadway classification, all roadways are classified as local or collector roadways.

- Grade: Traffic calming measures should not be considered if the grade of the roadway under consideration exceeds 8 percent. Implementing traffic calming measures on roadways with steep grades can result in safety issues, particularly under inclement weather conditions. The eight percent threshold is consistent with many other jurisdictions.

- Collision History: The collision history of the roadway within the past three years is reviewed and collisions involving vulnerable road users, such as cyclists and pedestrians, which could potentially have been avoided with the implementation of traffic calming measures are identified.

  The collision history can justify advancing the roadway through the initial screening process regardless of the volume and speed criteria. The thresholds are a minimum of three collisions over a 3-year timeframe for a local roadway, and six collisions over a 3-year timeframe for a collector roadway.

- Traffic Volumes: A minimum average daily traffic volume (ADT) threshold must be met in order for a roadway to qualify for traffic calming. Typical thresholds used in other jurisdictions range from 500 and 900 vehicles per day on local roadways and 1,500 to 3,000 vehicles per day on collector roadways.

  Based on traffic volume data collected throughout the Town in 2017, the minimum volume thresholds should be set at 400 vehicles per day on local roadways and 3,000 vehicles per day on collector roadways. A threshold of 400 vehicles per day on local roadways was selected based on traffic volumes observed on local roadways and the lower residential density in the Town.

  These thresholds should be reviewed periodically based on updated traffic data and adjusted to ensure they are adequate for traffic volumes observed in the Town.

- **Speed:** Traffic calming should be considered on roadways where the 85th percentile speed exceeds the speed limit. The 85th percentile speed is the speed that 85 percent of vehicles do not exceed, meaning that 15 percent of vehicles will travel faster than the 85th percentile speed and 85 percent of vehicles will travel at or below the 85th percentile speed.

  The typical posted speed limit for local roadways throughout Canada is 50 km/h. The TAC *Canadian Guidelines for Establishing Posted Speed Limits* states that the lowest recommended posted speed limit is 40 km/h. While some of the local roadways in the Town have a posted speed limit of 30 km/h, for traffic calming evaluation purposes the 85th percentile speed on these roadways should be compared to a speed limit of 40 or 50 km/h rather than the actual posted speed. For example, a reduced speed limit of 40 km/h could be applied to substandard roads.

  Collector roadways are typically posted to higher speed limits and travelled speeds are generally expected to be slightly higher than they would be on local roadways. As a result, the 85th percentile speed threshold for traffic calming is typically higher on collector roadways.

  Based on traffic speed data collected throughout the Town in 2017, the minimum 85th percentile speed thresholds should be set at 5 km/h over the posted speed limit (or appropriate minimum speed limit) on local roadways and 10 km/h over the posted speed limit on collector roadways.

Traffic calming requests for local and collector roadways must meet both the traffic volume and speed criteria summarized in Table 1. In the even that a request meets or exceeds the collision threshold criteria, the request shall be considered as having met the minimum initial screening criteria and override the volume and speed criteria. The initial screening process is summarized in Figure 1, which illustrates a flow chart that can be used for screening of traffic calming requests.

Table 1: Initial screening criteria for traffic calming requests

Criteria	Thresholds			Notes
	Local Roadways	Collector Roadways	Arterial Roadways	
Grade	< 8%			Traffic Calming is not permitted on roadways with grades exceeding 8%.
Collision History	3	6	n/a	Collision History involving Vulnerable Road Users should be greater than or equal to the values shown over a 3 year period.
Volume	400 vpd	3,000 vpd	n/a	Average Daily Volume should exceed minimum threshold volumes noted.
Speed	5 km/hr over posted speed	10 km/hr over posted speed	n/a	85th percentile speeds should exceed values for each classification of roadway.

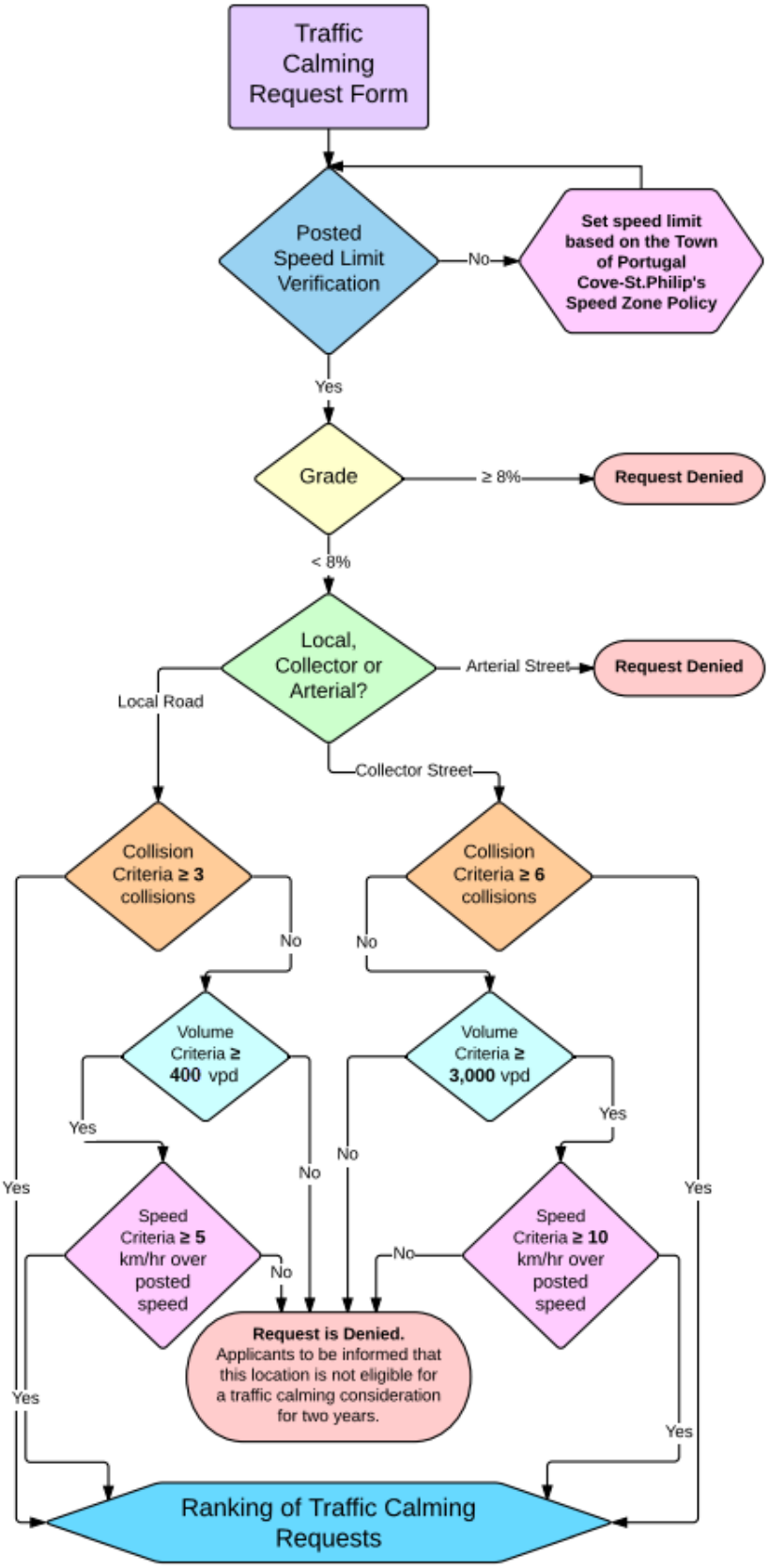


Figure 1: Flow chart of the initial screening process for traffic calming requests

3.2.1 Data Collection and Calculations of Non-local Traffic

Collision data, average daily traffic and 85th percentile speed data is required for an accurate assessment of the roadway involved in the traffic calming request.

Collision data for all roadways within the municipal boundary of the Town of LBMCOC can be obtained by request from the Royal Newfoundland Constabulary.

Average daily traffic volumes are collected over a 24-hour period using traffic counters. The 85th percentile speed can be collected separately or in combination with the traffic volumes. There are many different types of portable, non-intrusive devices available on the market that can record traffic volume and speed data. Two examples include:

- **Jamar Radar Recorder:** The radar system can record speed, volumes, gaps and classification of vehicles on a roadway. This device includes a data box that records traffic with a time stamp, resulting in better data collection. The device must be installed on a pole near a straight road and not near any intersection or access point.
- **Miovision Scout Video Collection Unit:** The Scout Video Collection Unit is a portable video data collection device that is built for reliable and unattended field operation for days at a time. The unit records video of an intersection or roadway, which is then uploaded to Miovision's website for processing. The user can then choose the desired output results, such as turning movement counts, ADT's, or pedestrian counts.

3.3 Step 3 – Prioritizing Requests

The Town of LBMCOC, like all municipalities throughout the Northeast Avalon, has limited financial resources available to provide services to residents that live in the community. Traffic calming will be one of many programs that Council will have to carefully consider in allocating Capital funding.

The funding amounts for traffic calming are likely to be limited; therefore, requests that pass the initial screening process must be ranked to ensure the more serious cases receive funding priority. The following criteria are considered in ranking the requests:

- Collision history
- Traffic volumes
- Speed
- Presence of pedestrian generators
- Pedestrian facilities
- Non-local traffic
- Primary emergency route

Points are assigned for each category based on the criteria noted in Table 2 for local roadways and Table 3 for collector roadways. The weighting of the points assigned to each category are different for local and collector roadways to reflect the intended functionality of the roadway. Points assigned to the criteria that are considered to be more critical to each classification of roadway, such that more severe concerns receive higher rankings. For example, the presence of pedestrian facilities while important for both local and collector roadways, would be more concerning for collector roadways where traffic volumes and speeds are likely to be higher and therefore the risk to pedestrian safety would be greater.

Table 2: Ranking criteria and point allocation for traffic calming requests on local roadways

Criteria	Method of Allocation of Points	Maximum Points
Collision History	**2 points** for every collision in the previous three years in the study area involving a vulnerable road user	10
Traffic Volumes (ADT)	**1 point** for every 50 vehicles above the 600 min to a max of 20 points	20
85th Percentile Speed	**2 points** for every km/hr the 85th percentile speed exceeds the posted speed limit plus 5km/hr to a max of 30 points	30
Presence of Pedestrian Generators	**5 points** allocated to the presence of a pedestrian generator to a maximum of 15 points	15
Pedestrian Facilities	**15 points** allocated to streets with no pedestrian facilities present	15
Non-Local Traffic	**5 points** allocated for every 10% above 30% non-local traffic present to a maximum of 15 points (max points reached at 50% non-local traffic)	10
Primary Emergency Route	**-5 points** if the roadway under consideration is a primary emergency response route	0
		100

Table 3: Ranking criteria and point allocation for traffic calming requests on collector roadways

Criteria	Method of Allocation of Points	Maximum Points
Collision History	**2 points** for every collision in the previous three years in the study area involving a vulnerable road user	10
Traffic Volumes (ADT)	**1 point** for every 100 vehicles above the 3,000 vpd limit to a max of 20 points	20
85th Percentile Speed	**2 points** for every km/hr the 85th percentile speed exceeds the posted speed limit plus 10km/hr threshold to a max of 20 points	20
Presence of Pedestrian Generators	**5 points** allocated to the presence of a pedestrian generator to a maximum of 15 points	15
Pedestrian Facilities	**25 points** allocated to streets with no pedestrian facilities present on either side of the roadway; **15 points** if a pedestrian facility is present on one side of the street	25
Non-Local Traffic	**2 points** allocated for every 10% above 30% non-local traffic present to a maximum of 10 points (max at 80% non Local Traffic)	10
Primary Emergency Route	**-10 points** if the roadway under consideration is a primary emergency response route	0
		100

3.3.1 Calculations for Non-local Traffic

An estimate of non-local traffic is required in the ranking process. Non-local traffic can be determined using a number of different methods. For the purposes of this traffic calming policy, the two following methods are acceptable. They include:

Method 1 - Applying the following formulas:

Local Roadways:

$$\text{Non-local Traffic Percentage} = (1 - (400/ADT)) * 100$$

Collector Roadways

$$\text{Non-local Traffic Percentage} = (1 - (3000/ADT)) * 100$$

Method 2 - Applying the following formula:

$$\text{Non-local Traffic Percentage} = ((ADT - (10 \times \text{number of households on the roadway}))/ADT) * 100$$

The first method implies that all traffic above the threshold volumes noted in the initiation screening criteria would be considered non-local. The second method assumes all local residential households generate on the average of 10 two-way trips per day and any traffic above and beyond that figure could be considered non-local traffic. Both methods are intended to provide approximate percentages of on non-local traffic.

3.4 Step 4 –Council Approval and Funding Allocation

As traffic calming requests are received and evaluated, they should be recorded in an overall database. Records of the screening process and point allocation for the ranking should be recorded and dated for each individual request. As requests are ranked they should be included in an overall priority list for traffic calming. Roadways should be removed from the list as they are addressed by staff with the Capital funding made available by Council.

This list will provide Council and staff with an up-to-date priority listing of roadways that require attention to guide approval and funding allocation. In order for a traffic calming request to proceed to Step 5, it must obtain Council approval and be allocated funding.

This list could also be made available through the Town's website for the information of residents. By making the listing publicly available, residents are more likely to understand that the Town has many areas with concerns and that the more serious requests are prioritized to receive the attention and funding from Council.

3.5 Step 5 – Initial Resident Support

In order for any traffic calming project to be successful, the community must support the process and be committed to the solutions that are implemented to resolve the traffic and safety problems experienced. History has shown that where this support is not in place, the traffic calming measures often have to be removed because of opposition from residents.

The Town needs to ensure that the initial resident support for traffic calming is sufficient enough to avoid any possibility of having to revisit a roadway to remove measures that have been implemented. The initial level of resident support should be a minimum of **60%.**

When a roadway receives a capital funding commitment from Council under Step 4, Town staff should advise the surrounding neighbourhood residents that would primarily be affected by the new traffic calming measure. This can be done through a survey requesting their feedback and position as to whether or not they would support traffic calming measures on their roadway. This would also be an opportunity to solicit the names of residents who would like to participate in a focus group session that will assist in formulating the traffic calming solution for the roadway.

For traffic calming requests that do not receive the required threshold level of support of 60%, the request should be rejected and the process terminated. Any subsequent requests for the roadway should not be considered again under the policy for a minimum of two years.

3.6 Step 6 – Traffic Calming Plan

The development of the traffic calming plan will be a combined effort consisting of input from the Town staff and/or their consultant with feedback and suggestions from affected residents. It should be noted that if the roadway under consideration is a collector roadway, the traffic calming design solution must consider the function of these roadways within the Town's road network.

At this stage in the traffic calming process, the Town should facilitate a focus group discussion on the traffic calming plan development. The Town should select from the residents who indicated that they were willing to participate in a focus group to assist in the traffic calming plan development under Step 5.

Town staff should prepare initial concepts of various options to kick start and facilitate the group discussion. It would also be appropriate for the Town to present to the focus group, touching on traffic calming and the toolbox of traffic calming measures that are available to deal with specific problems.

At the conclusion of the focus group meeting, staff should have enough information to prepare conceptual drawings and cost estimate for the traffic calming plan proposed for the roadway. Depending on the estimated costs, the plan may have to be altered or scaled back to meet funding targets.

3.7 Step 7 – Final Resident Support

Once the traffic calming plan has been completed under Step 6, the Town should finalize the concept plans with descriptions of the traffic calming measures and the cost estimates associated with each concept.

The finalized concept plan and descriptions should be communicated to the group of affected residents identified under Step 5. The concept package can be sent via e-mail or mail and placed on the Town's website, asking for feedback about the proposed traffic calming plan. The Town should request for the feedback and other comments to be returned within two to three weeks for a final assessment.

The neighbourhood support should be greater than 60%, similar to Step 5. If the 60% support is not met, the request is rejected and the roadway should not be considered for traffic calming measures under the policy for a minimum of two years.

3.8 Step 8 – Final Council Approval

If the 60% resident support threshold has been met for the proposed traffic calming plan, Town staff should revise the cost estimates and prepare a report to recommend to Council for final approval.

3.9 Step 9 – Design, Tender and Construction

If Council approves the proposed traffic calming plan, the Town staff and/or consultant will proceed to develop a preliminary design, detailed design, call for tender and construction of the traffic calming device(s).

3.10 Step 10 – Follow-Up

After the traffic calming plan has been implemented, Town staff should document any comments or concerns about the new traffic calming measures from residents.

Six months after installation, the initial traffic calming request should be reviewed to verify that the new traffic calming plan has addressed the issues brought forward in the request. If the issues have not been resolved, other traffic calming measures may be required to work in conjunction with the previously installed measures. Any changes to previous traffic calming plans should be documented in the master database to improve future traffic calming plans.

4.0 Other Considerations

4.1 Emergency Vehicle Routes

Emergency vehicle routes must be considered when designing traffic calming plans on roadways. Certain traffic calming measures, such as roadway closures, should not be implemented on emergency vehicles routes. Traffic calming measures with no impact and minor impacts to emergency vehicles are summarized below.

No impact to emergency vehicles:

- Rumble Strips
- Speed Cushions
- Textured Crosswalks
- Signage

Minor impact to emergency vehicles:

- Raised Crosswalks
- Speed Humps
- Speed Tables
- Chicanes
- Curb Extensions
- On-Street Parking
- Traffic Circles
- Right-In/Right-Out

4.2 Design of New Subdivisions with Traffic Calming Measures

There are new subdivisions and extensions of existing subdivision throughout the Town that are under the planning and construction stages. Traffic calming measures should be incorporated into the design of new subdivisions to encourage traffic-calmed neighborhoods. Certain traffic calming measures require specific right-of-way, such as traffic circles, these traffic calming measured can easily be incorporated into new developments at the early design stages.

Other traffic calming measures, such as raised crosswalks and chicanes, require considerations for storm water management since these traffic calming measures can extend across the width of a roadway or abut to the curb. These measures can prevent surface water run-off from getting to the catch basins and can result in flooding uphill of the traffic calming measure. When these types of traffic calming measures are

incorporated into the design of the subdivisions, these problems can be averted by including the traffic calming measures in the storm water management design.

Introducing traffic calming measures into the design stage of new developments will improve the aesthetics of the subdivision, reduce speeds and through traffic volumes and provide, a safer and friendlier environment for pedestrians and bicyclists.

Appendix A

Summary Table of Traffic Calming Measures

	Description	Cost	Location & Spacing	Control
Vertical Deflections				
Speed Humps	A speed hump is a raised rounded pavement section which deflects both wheels of a vehicle forcing motorists to slow down to drive over the speed hump.	$2,000/ hump	30 km/hr - every 60m 40 km/hr - every 80m 45 km/hr - every 100m 50 km/hr - every 125m	Reduce Speed/Volume
Speed Tables	A speed table is a raised pavement section which deflects both wheels of a vehicle forcing motorists to slow down to drive over the speed hump. Speed tables are longer than speed humps and have a flat top.	$750/linear meter	30 km/hr - every 60m 40 km/hr - every 80m 50 km/hr - every 125m	Reduce Speed/Volume
Speed Cushions	Speed cushions are speed humps or tables that include longitudinal gaps to allow wide wheel base vehicles to avoid the raised sections.	$1700/cushion	30 km/hr - every 60m 40 km/hr - every 80m 50 km/hr - every 125m	Reduce Speed/Volume
Raised Crosswalks	A raised crosswalk is a marked pedestrian crosswalk at an intersection or midblock crossing constructed at a higher elevation than the roadway. Raised crosswalks typically consist of crosswalks installed on speed humps or tables.	$5,000 to $20,000	Marked crosswalks & midblock crossings	Reduce Speed/Volume & Increase Pedestrian Visibility
Transverse Rumble Strips	Rumble strips are patterns of raised buttons, bars or grooves in the pavement closely spaced at regular intervals on the roadway. As a vehicle travel over rumble strips, both noise and vibration are created.	$500 to $2,000	50 km/hr - locate 65m in advance 60 km/ hr - locate 85m in advance	Reduce Speed
Textured Crosswalk	A textured crosswalk is a crosswalk incorporating a textured and/or patterned surface that c	$100/ m2	At any crosswalk	Increase Pedestrian Visibility
Horizontal Deflections				
Chicane	Chicanes are a series of curb extensions on alternating sides of the roadway.	$5,000 to $15,000 per chicane	Mid-block locations, > 20m away from an intersection	Reduce Speed/Volume
Curb Extension	Curb extensions are a horizontal extension of the curb into the roadway.	$10,000 to $20,000	At intersections and mid-block crossings	Reduce Speed & Increase Pedestrian Visibility
On- Street Parking	Parallel on-street parking reduces the roadway width available for vehicle travel.	$200 to $500	Not effective on rural cross sections	Reduce Speed/Volume
Traffic Calming Circle	A traffic calming circle is a raised island located in the centre of the intersection. Traffic calming circles require motorists to travel through the intersection in a counter-clockwise direction around the island.	$15,000 to $70,000	Consecutive intersections	Reduce Speed
Obstructions				
Directional or Full Closure	A roadway closures consist of placing a physical device in the roadway to prohibit one direction of travel (directional closure) or prohibit access entirely (full closure).	$3,000 to $5,000	Local streets	Reduce Speed/Through Volumes
Right in Right Out Island	Right-in/right-out islands are raised triangular islands at an intersection approach that prevent left-turning movements in and out of the approach.	$7,000 to $15,000	Local and residential collector streets	Reduce Through Volumes
Signage				
Maximum Speed Sign	The Maximum Speed sign indicates the maximum legal vehicle speed permitted on the roadway.	$500 per sign	Any street	Reduce Speed
Radar Speed Display Sign	Radar speed display signs are used to inform motorists of their current speed and encourage them to reduce their speed to the posted speed limit.	$7,000 per unit	Any street	Reduce Speed
Through Traffic Prohibited Sign	The Through Traffic Prohibited sign is used to prohibit traffic that is short-cutting through on a roadway.	$500 per sign	Any street	Reduce Speed
Speed Bumps Ahead Sign	The Speed Bumps Ahead sign is used to alert motorists of the presence of speed bumps, humps, cushions or tables.	$500 per sign	Any street	Reduce Speed
Traffic-Calmed Neighbourhood Sign	The traffic-calmed neighbourhood sign is used to advise motorists that traffic calming measures are in place throughout a neighbourhood.	$500 per sign	Any street	Reduce Speed

Appendix B

Traffic Calming Request Form

Traffic Calming Request Form

Please complete the following form and return to the
Town of Logy Bay-Middle Cove-Outer Cove

Traffic Calming is the combination of physical measures, that reduce the negative effects of motor vehicle use, alter driver behaviour and improve conditions for both pedestrians and cyclists.

Logy Bay Middle Cove Outer Cove

Applicant Name: _____
Applicant Address: _____
Date: _____

Please select one of the following areas that relate to the nature of your concern:

- ☐ Residential Area
- ☐ School/ Day Care Zone
- ☐ Recreational Area

Please select any of the following traffic concerns:

- ☐ High Speeds in Neighbourhood
- ☐ Collision Concerns
- ☐ Aggressive Driving Behaviour
- ☐ Pedestrian Safety

Specific location of concern (intersection, road name, civic number):

Further details about traffic concerns:

Suggested Traffic Calming Solution:

Signing below indicates your understanding that the Town of Logy Bay-Middle Cove-Outer Cove staff and Council will review and assess the concerns noted above to the best of their ability, if the criteria and required public support are met as per the *Town of Logy Bay-Middle Cove-Outer Cove Traffic Calming Policy.*

Applicant Signature: _____
Contact Number: _____
E-mail Address:

Would you like to participate in the Focus Group discussion? ☐ Yes ☐ No