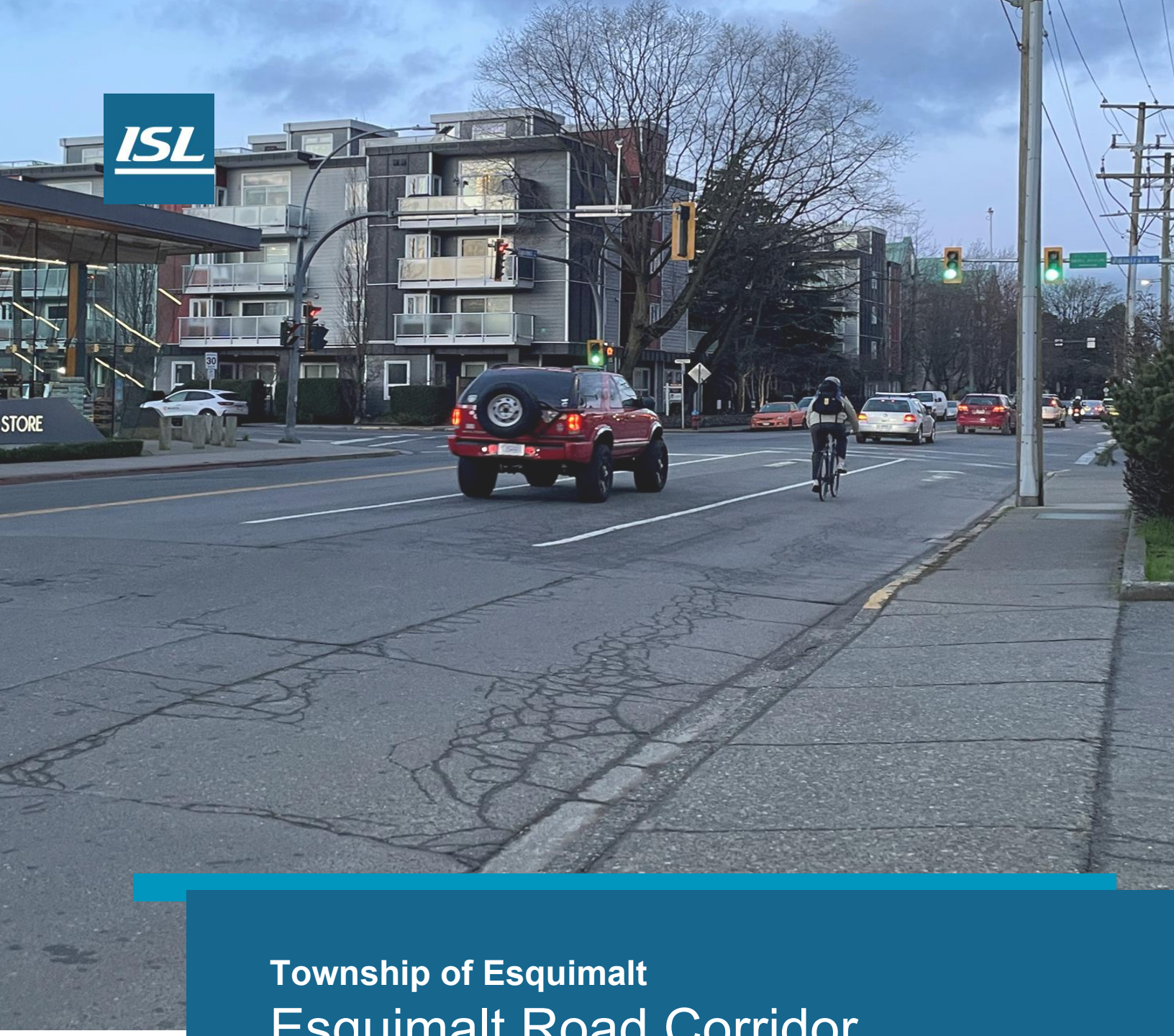

Township of Esquimalt

Esquimalt Road Corridor Traffic Review

Draft Report

April 2026

ISL Engineering and Land Services Ltd. is an award-winning full-service consulting firm dedicated to working with all levels of government and the private sector to deliver planning and design solutions for transportation, water, and land projects.

ISL Commitments

We embrace diversity, equity, and inclusion to build thriving teams and deliver the best outcomes for our clients. We are committed to a safe, respectful, and inclusive workplace where every voice contributes to our shared success.

ISL's Permit to Practice reflects our commitment to the highest standards of professional and ethical responsibility—principles that align with our shared values. As a people-first company, we recognize that success in an AI-enabled future depends on exceptional professionals whose expertise informs every decision. We use artificial intelligence to enhance innovation, efficiency, and quality while ensuring human insight, collaboration, and accountability remain central to our work. AI enhances our judgment, but every output is critically reviewed to uphold ISL's standards of technical excellence, accuracy, and client trust.

Corporate Authorization

This document entitled “Esquimalt Road Corridor Traffic Review” has been prepared by ISL Engineering and Land Services Ltd. (ISL) for the use of the Township of Esquimalt. The information and data provided herein represent ISL’s professional judgment at the time of preparation. ISL denies any liability whatsoever to any other parties who may obtain this report and use it, or any of its contents, without prior written consent from ISL.

Matt Taylor, P.Eng., M.Eng., PTOE
Manager, Transportation Planning

[SIGN AND SEAL ONLY ON FINAL VERSION]

Permit to Practice
ISL Engineering and Land Services Ltd.

RR Signature:
RR EGBC ID: 45121
Date: 2026-04-22

Permit Number 1000419
Engineers & Geoscientists British Columbia

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APPENDICES

TABLES

FIGURES

1.0 Introduction

1.1 Project Overview

ISL Engineering and Land Services Ltd. (ISL) was retained by the Township of Esquimalt (the Township) to provide engineering services for the Esquimalt Road Active Transportation Improvements and Underground Utility Renewals Project (the Project). The Township has prepared conceptual designs for the Esquimalt Road corridor with the intent of providing AAA cycling infrastructure and facilitating improved corridor safety and functionality.

As part of Phase 2 of the Project, ISL prepared the 60% design for Esquimalt Road between Canteen Road and Admirals Road, and between Fraser Street and Lampson Street (shown in red in **Figure 1.1**). Within this project location, the western portion currently operates as a four-lane cross-section and is proposed to be reduced to two lanes, while the eastern portion already operates as a two-lane road.

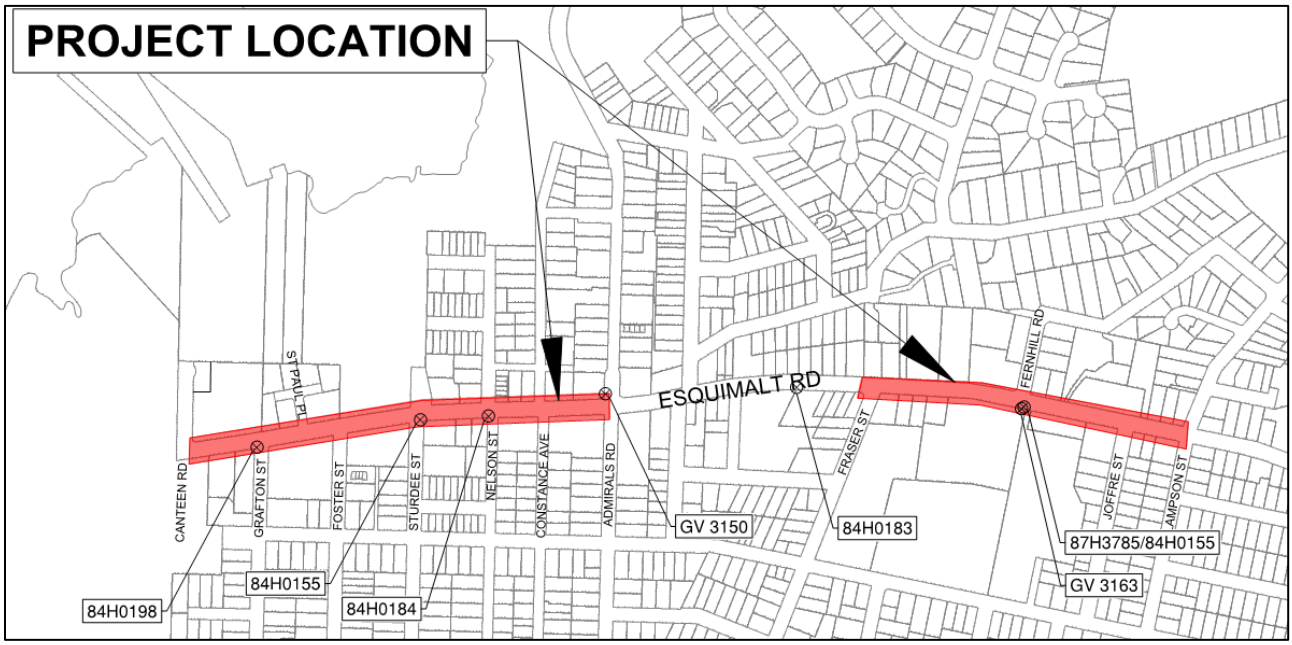


Figure 1.1: Location Plan of the Project

1.2 Study Objectives

The objective of this study is to:

- Analyze weekday AM and PM peak hour traffic operations along the Esquimalt Road corridor at the following key intersections:
  - Esquimalt Road & Admirals Road
  - Esquimalt Road & Nelson Street
  - Esquimalt Road & Canteen Road

- Develop and apply Synchro corridor models under existing and post–road diet conditions, incorporating signal timing information provided by the Township.
- Evaluate traffic operations using Level of Service (LOS), volume-to-capacity (V/C) ratios, and 95th percentile queues.
- Assess corridor-wide traffic performance and identify key operational considerations associated with the proposed lane reduction.

1.3 Proposed Improvements

Figure 1.2 illustrates the existing four-lane cross-section at the Esquimalt Road & Admirals Road intersection. **Figure 1.3** presents an excerpt of ISL's proposed 90% design, where the west segment of Esquimalt Road is reduced to one travel lane per direction and incorporates AAA cycling facilities. While this figure focuses on the Admirals Road intersection, similar cross-section modifications are proposed along the corridor, including the introduction of a two-way left-turn lane (TWLTL). A comparable improvement is also proposed for the east leg of the Admirals Road intersection, as shown in **Figure 1.4**. In addition, the Esquimalt Road & Nelson Street intersection is proposed to be upgraded from two-way stop control to a full signalized intersection (**Figure 1.5**). These corridor-wide changes form the basis of the expanded traffic operations assessment.

Figure 1.2: Facing West at Esquimalt Road & Admirals Road's East Leg – Current (February 24, 2026)

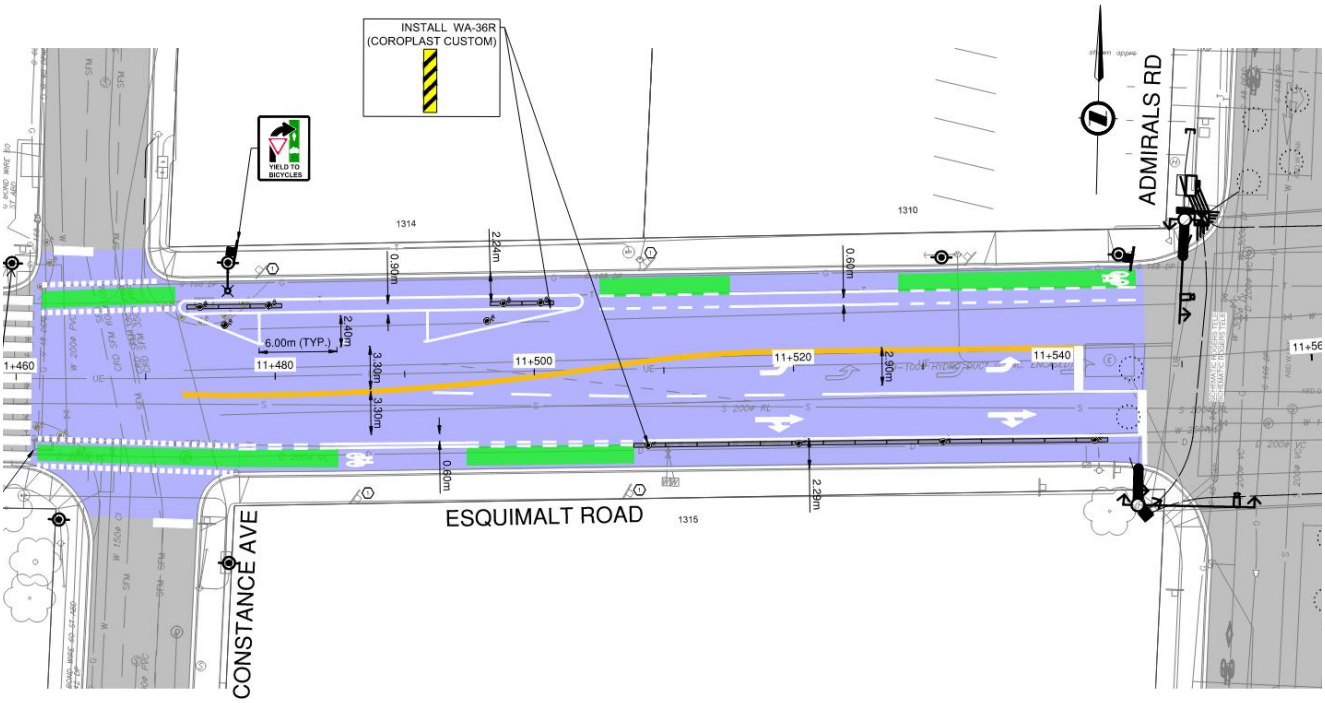


Figure 1.3: West Leg of Esquimalt Road & Admirals Road Intersection – Proposed (ISL 2026)

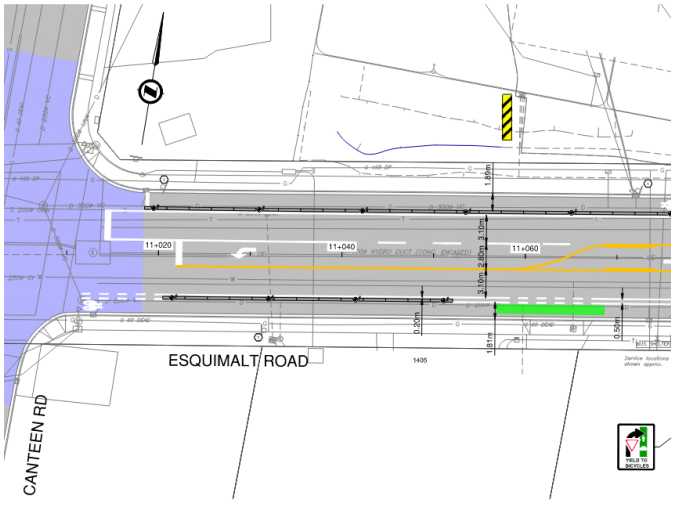


Figure 1.4: East leg of Esquimalt Road & Canteen Road Intersection – Proposed (ISL 2026)

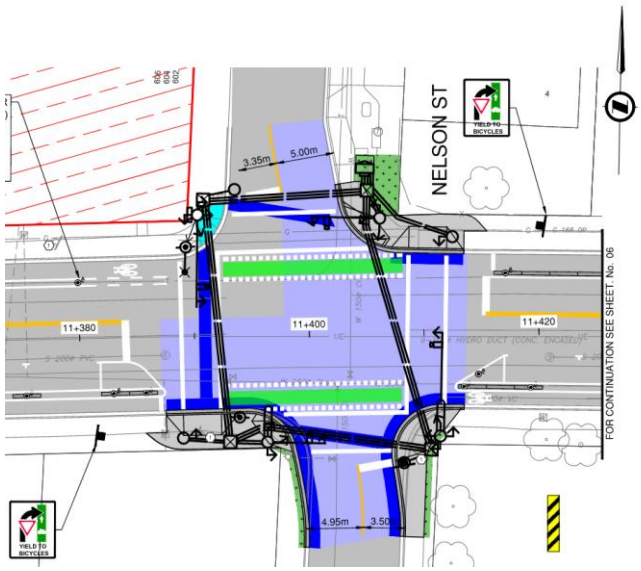


Figure 1.5: Esquimalt Road & Nelson Street Intersection – Proposed (ISL 2026)

2.0 Transportation Context

2.1 Existing Transportation Facilities

Table 2.1 summarizes the key characteristics of the study area roadways. The surrounding transportation networks are shown in **Figure 2.1,** which highlights existing transportation facilities for all modes including motor vehicles, active transportation and transit. This figure also indicates the laning configurations for the study area intersections.

Table 2.1: Existing Roadway Features

Road Name	Classification	Through Lanes	Speed Limit	Parking	Truck Route
Esquimalt Road	Major Arterial	2 EB / 2 WB	40 km/h	Yes	Yes
Admirals Road	Major Arterial	1 NB / 1 SB	40 km/h	Yes – south leg only	No
Nelson Street	Local	1 NB / 1 SB	30 km/h	No	No
Canteen Road	Collector	1 NB / 1 SB	40 km/h	No	Yes

NB = Northbound; EB = Eastbound; SB = Southbound; WB = Westbound

Table 2.2 provides a summary of the existing active transportation and transit networks throughout the study area road network.

Table 2.2: Existing Roadway Features

Road Name	Walking Facilities	Cycling Facilities
Esquimalt Road	Sidewalks – both sides	No cycling facilities
Admirals Road	Sidewalks – both sides	Bike lanes – both sides
Nelson Street	Sidewalks – east side only	No cycling facilities
Canteen Road	Sidewalks – NE side & SW side	No cycling facilities

Table 2.3 summarizes the existing traffic control at the study intersections.

Table 2.3: Existing Intersection Traffic Control

Intersection	Existing Traffic Control
Esquimalt Road & Admirals Road	Signal
Esquimalt Road & Nelson Street	Two-way stop control
Esquimalt Road & Canteen Road	Signal

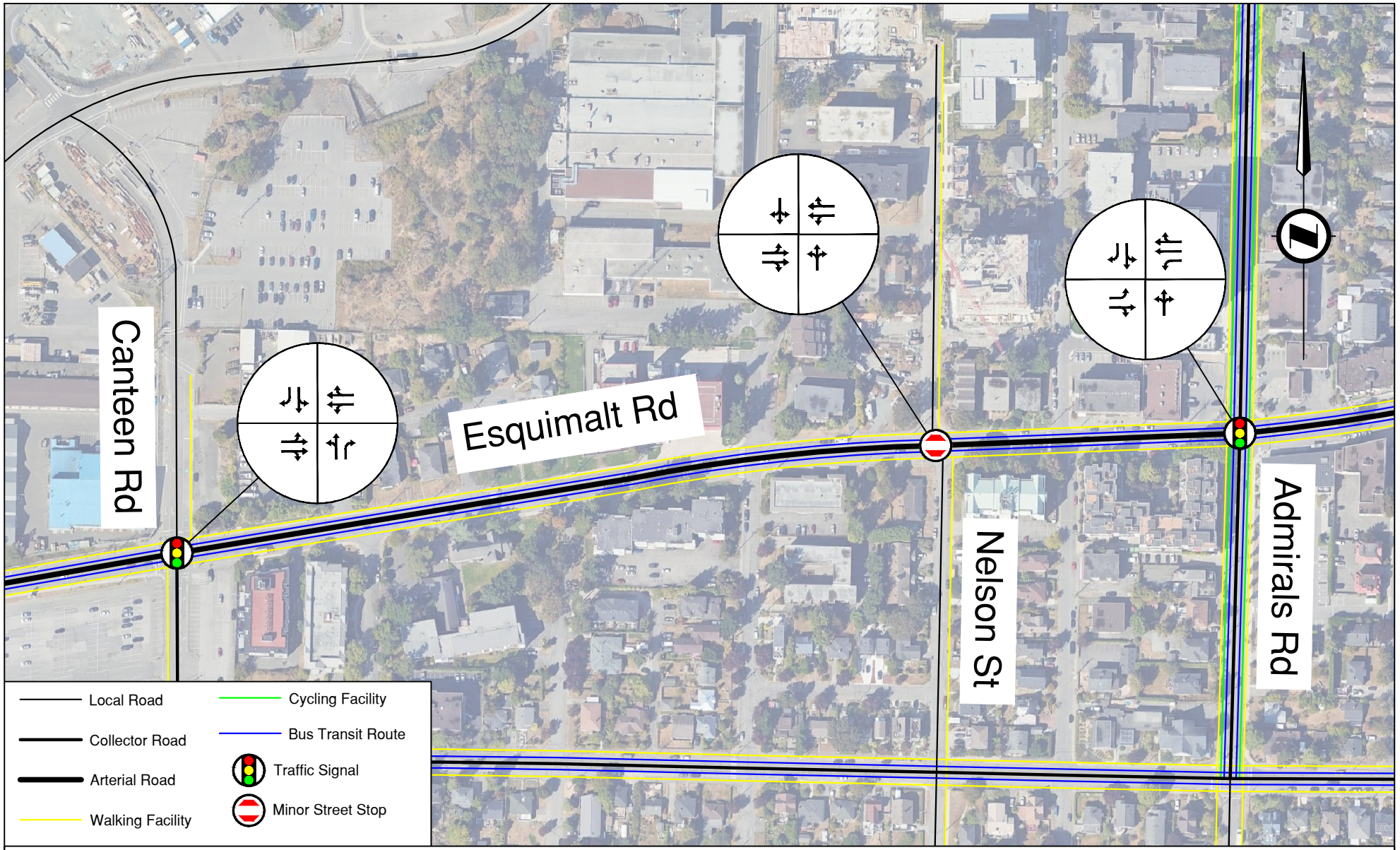


Figure 2.1: Existing Transportation Facilities

Esquimalt Road Project - Phase 2A (#33995)
Township of Esquimalt
April 2026

2.2 Existing Traffic Volumes

Table 2.4 summarizes the data sources used in this study, which were provided by the Township.

Table 2.4: Count Data Summary

Location	Date (MM-DD-YYYY)	Day	Count Period
Esquimalt Road & Admirals Road	07-09-2024	Tuesday	7:00 AM – 11:00 AM 3:00 PM – 8:00 PM
Esquimalt Road & Nelson Street	09-05-2022	Wednesday	7:00 AM – 9:00 AM 3:00 PM – 6:00 PM
Esquimalt Road & Canteen Road	08-26-2025	Tuesday	8:00 AM – 10:00 AM 2:00 PM – 7:00 PM

The peak hour for the overall study area was identified during the weekday AM and PM peak traffic periods and used as a basis for the analysis. These peak hours were found to be:

- **Weekday AM:** 7:00 – 8:00 AM
- **Weekday PM:** 3:15 – 4:15 PM

The summary of the traffic volumes can be found in **Table 2.5** to **Table 2.7** below. A growth rate of 2% was used to scale volumes to a consistent 2025 base year, which was the date of the most recent count data provided.

Table 2.5: Traffic Volumes at Esquimalt Road & Admirals Road

Peak Period	Peak Hour	Esquimalt Road						Admirals Road						Total
		Eastbound			Westbound			Northbound			Southbound			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Weekday AM	7:00	76	100	8	13	294	111	1	123	12	138	86	430	1,392
Weekday PM	15:15	263	295	13	41	101	128	11	142	31	216	129	82	1,452

Table 2.6: Traffic Volumes at Esquimalt Road & Nelson Street

Peak Period	Peak Hour	Esquimalt Road						Nelson Street						Total
		Eastbound			Westbound			Northbound			Southbound			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Weekday AM	7:00	0	142	5	2	699	8	0	0	5	23	1	0	885
Weekday PM	15:15	1	548	1	8	164	16	0	1	8	17	0	2	766

Table 2.7: Traffic Volumes at Esquimalt Road & Canteen Road

Peak Period	Peak Hour	Esquimalt Road						Canteen Road						Total
		Eastbound			Westbound			Northbound			Southbound			
		EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Weekday AM	7:00	13	28	11	179	323	153	13	15	12	11	11	2	771
Weekday PM	15:15	0	256	9	22	57	11	5	4	92	119	17	1	593

2.3 Proposed Transportation Design

The proposed transportation design incorporates corridor-wide modifications to improve safety, operations, and multimodal accessibility. The key elements of the design are summarized below:

- Reduction of Esquimalt Road from four lanes to two lanes along the western segment of the corridor.
- Introduction of a TWLTL to accommodate turning movements and improve access to adjacent properties.
- Installation of AAA cycling facilities along the corridor to support active transportation and improve cyclist safety.
- Retention of signalized control at Esquimalt Road & Admirals Road and Esquimalt Road & Canteen Road.
- Upgrade of the Esquimalt Road & Nelson Street intersection from two-way stop control to a traffic signal.
- Provision of auxiliary turning lanes at key intersections to support peak period operations.
- Adjustments to on-street parking as required to accommodate turning lane storage and corridor design elements.

The proposed transportation facilities are illustrated in **Figure 2.2**.

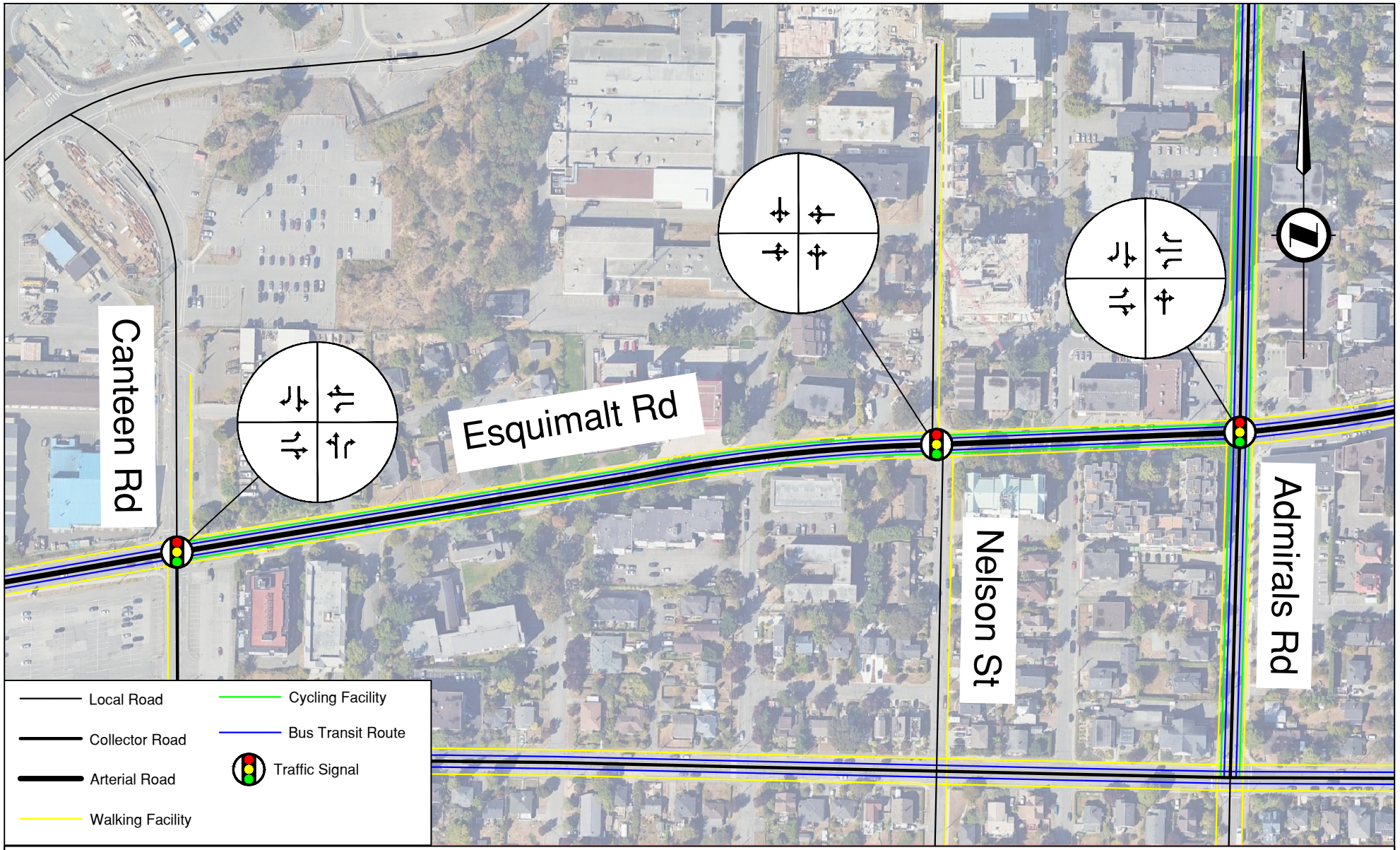


Figure 2.2: Future Laning and Traffic Control

Esquimalt Road Project - Phase 2A (#33995)
Township of Esquimalt
April 2026

3.0 Traffic Operations Analysis

3.1 Methodology

To confirm the feasibility of the proposed lane reduction, ISL assessed traffic operations along the Esquimalt Road corridor at key intersections including Admirals Road, Canteen Road, and Nelson Street. The operational analysis approach used for this study is summarized in **Tables 3.1** to **3.3**.

Table 3.1: Operational Analysis Tools

Performance Measure	Description	Performance Threshold
Delay	The additional time a vehicle spends traveling through a road network compared to the time it would take under free-flow conditions.	Stop control: 55s Traffic signal: 80s
Level of Service (LOS)	A qualitative measure based on the average control delay per vehicle to assess the operational conditions, ranging from A (free flow with minimal delays) to F (breakdown flow with excessive delays).	Individual movement: E Overall intersection: D
Volume-to-Capacity (V/C) Ratio	A performance metric to assess the level of congestion on a roadway, calculated by dividing the actual traffic volume by the roadway's capacity.	Individual movement: 0.90
95th% Queue	A performance metric to describe the length of a queue that has not exceeded 95% of the time during a given period, providing a reliable indicator of congestion and queuing behavior at intersections or along road segments.	Basic lane: to upstream intersection Auxiliary lane: storage length

Note: Performance measure criteria are considered met when the operational analysis results are less than or equal to the specified thresholds.

Table 3.2: Operational Analysis Parameters

Analysis Parameter	Source of Parameter Value
Heavy Vehicle %	Individual movement heavy vehicle percentages from traffic count data
Peak Hour Factor (PHF)	Overall intersection PHF from traffic count data
Conflicting Pedestrians	Recorded pedestrian volumes from traffic count data
Conflicting Cyclists	Recorded cyclist volumes from traffic count data

Note: All other operational parameters use software defaults, which are based on industry standard values.

Table 3.3: Operational Analysis Tools

Performance Measure	Traffic Control	
	Traffic Signal	Stop Control
Delay	Synchro 12/SimTraffic 12	HCM 7th Edition (Synchro 12)
LOS		
V/C Ratio		
95th% Queue		

3.2 Individual Intersection Traffic Operations Analysis

3.2.1 Esquimalt Road & Admirals Road

The analysis results for the existing and future traffic conditions are summarized in **Table 3.4** and **Table 3.5**, respectively. Detailed Synchro results are presented in the **Appendix**.

Table 3.4: Traffic Operations Results – Esquimalt Road & Admirals Road (Existing Conditions)

Current	Intersection	Esquimalt Road						Admirals Road					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Signal	pm+pt	-		Perm	-		Perm	-		pm+pt	-	Perm
Laning		L	TR		L	T-TR		LTR			LT		R
Storage (m)		-	-		20	-		-			-		40
AM Peak													
Volume	1392	76	100	8	13	294	111	1	123	12	138	86	430
LOS / Delay	B / 15	B / 15	B / 15		C / 25	C / 23		C / 27			B / 15		A / 4
V/C Ratio	-	0.17	0.18		0.04	0.50		0.34			0.39		0.50
95th% Queue	-	17	25		7	45		35			41		15
PM Peak													
Volume	1452	263	295	13	41	101	128	11	142	31	216	129	82
LOS / Delay	C / 20	B / 19	B / 19		C / 30	B / 14		C / 32			C / 24		A / 4
V/C Ratio	-	0.48	0.40		0.17	0.30		0.48			0.66		0.13
95th% Queue	-	50	62		15	19		47			66		8

With the current configuration of four-lane cross section on the west leg of the Esquimalt Road & Admirals Intersection, all movements operate within acceptable thresholds.

Notably, the reported 95th-percentile queue for the eastbound left-turn movement during the PM peak hour is approximately 50 m. Although the current lane markings provide a delineated left-turn storage area of roughly 33 m (based on Google Maps aerial measurements), this storage area is not physically separated from the adjacent eastbound through lane. As a result, eastbound vehicles can utilize the full width of the two-lane approach when queues extend beyond the marked storage length.

Based on field observations, typical eastbound left (EBL) queue lengths during the PM peak period were observed to be approximately 4 to 5 vehicles, corresponding to an estimated queue length of 28 m to 35 m (assuming an average vehicle length of 7 m). These observed queues are shorter than the modelled 95th-percentile values but are generally consistent with median (50th-percentile) conditions. This suggests that while the model captures higher-end queueing scenarios, typical operations experience lower queue lengths in practice.

Because the effective storage for the EBL movement is not constrained by a physical median or channelization, no storage length was specified in Synchro for the existing geometry. The simulated queue lengths therefore reflect typical operational conditions, where spillback beyond the painted storage is accommodated by the continuous two-lane cross-section without restricting overall operations.

Table 3.5: Traffic Operations Results – Esquimalt Road & Admirals Road (Future Conditions)

Proposed	Intersection	Esquimalt Road						Admirals Road					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Signal	pm+pt	-		Perm	-	Perm	Perm	-		pm+pt	-	Perm
Laning		L	TR		L	T	R	LTR			LT		R
Storage (m)		26	-		20	-	25	-			-		35
AM Peak													
Volume	1392	76	100	8	13	294	111	1	123	12	138	86	430
LOS / Delay	B / 14	B / 12	B / 13		B / 19	C / 24	A / 7	C / 21			B / 16		A / 5
V/C Ratio	-	0.17	0.17		0.04	0.56	0.22	0.30			0.43		0.53
95th% Queue	-	14	22		6	66	12	29			39		18
PM Peak													
Volume	1452	263	295	13	41	101	128	11	142	31	216	129	82
LOS / Delay	B / 18	B / 18	B / 18		C / 22	C / 22	A / 7	C / 21			C / 21		A / 4
V/C Ratio	-	0.54	0.47		0.16	0.24	0.30	0.38			0.63		0.13
95th% Queue	-	44	54		12	25	12	37			57		7

Similar to the existing conditions analysis, all movements at the Esquimalt Road & Admirals Road intersection operate within acceptable thresholds under the proposed geometry during both the AM and PM peak periods. For the future conditions analysis, signal timing parameters were optimized within Synchro to reflect operational conditions under the proposed geometry. The eastbound left-turn movement during the PM peak period represents the most constrained condition, with a modelled 95th percentile queue of approximately 44 m.

Although this exceeds the proposed 26 m storage length, the resulting queueing is not expected to significantly affect overall operations. Field observations indicate that typical EBL queues are generally in the range of 4 to 5 vehicles (approximately 28 m to 35 m), which is more consistent with median operating conditions. In practice, queues are observed to clear during the protected eastbound left-turn phase and concurrent through movement, with limited residual queueing carried between cycles.

As a result, although the model reflects upper-bound queueing scenarios, typical operations are expected to be accommodated within or near the available storage length, with any occasional spillover being brief and not affecting eastbound through capacity during the green phase. The implications of the EBL storage length are discussed further in the following section.

Storage Bay Requirements

Queuing and storage for the eastbound left-turn movement at the Esquimalt Road & Admirals Road intersection is summarized in **Table 3.6**. The modelled 95th percentile queues are typically used to identify the ideal storage lengths to accommodate peak queues. The 50th percentile queues are also shown, which represent the queues present during a typical cycle in the peak period.

Table 3.6: Storage Bay Length Assessment

Proposed Geometry Analysis		EBL at Admirals Road
Available Storage (m)		26
95th% Queues (m)	AM Peak	14
	PM Peak	44
50th% Queues (m)	AM Peak	4
	PM Peak	26
Ideal Storage Length (m)		**44**

The proposed design provides approximately 26 m of EBL storage, which is shorter than the modelled 95th percentile queue. However, the 50th percentile queue lengths (approximately 4 m in the AM peak and 26 m in the PM peak) are more representative of typical operating conditions and are generally within or near the available storage length. Field observations similarly indicate that typical queue lengths are in the range of 28 m to 35 m.

This indicates that the modelled 95th percentile queue reflects an upper-bound condition, while typical operations are expected to be accommodated within the available storage. In practice, queues are observed to clear during each signal cycle, and no spillback to upstream intersections is expected.

SimTraffic analysis of the eastbound left-turn movement during the PM peak indicates that the average delay per vehicle increases from approximately 22 seconds under existing conditions to 27 seconds under the proposed design. While this represents a modest increase in delay (approximately 5 seconds), the movement continues to operate within LOS C under both scenarios, indicating that the impact is limited to minor additional delay. While occasional exceedances of the storage bay may occur during peak periods, these are not anticipated to have a significant impact on overall operations.

Opportunities to further extend the EBL storage bay are limited by the proposed on-street parking configuration along the north side of Esquimalt Road east of Constance Avenue. Any additional increase in storage length would require removal of on-street parking stall. Adjustments to balance this trade-off can be considered at later design stages.

3.2.2 Esquimalt Road & Nelson Street

The analysis results for the existing and future traffic conditions are summarized in **Table 3.7** and **Table 3.8**, respectively. Detailed Synchro results are presented in the **Appendix**.

Table 3.7: Traffic Operations Results – Esquimalt Road & Nelson Street (Existing Conditions)

Current	Intersection	Esquimalt Road						Nelson Street					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Minor Stop	Free			Free			Stop			Stop		
Laning		LT-TR			LT-TR			LTR			LTR		
Storage (m)		-			-			-			-		
AM Peak													
Volume	885	0	142	5	2	699	8	0	0	5	23	1	0
LOS / Delay	A / 1	A / 0			A / 8			A / 9			C / 23		
V/C Ratio	-	0.00			0.00			0.01			0.12		
95th% Queue	-	0			0			0			2		
PM Peak													
Volume	766	1	548	1	8	164	16	0	1	8	17	0	2
LOS / Delay	A / 1	A / 8			A / 9			B / 11			B / 14		
V/C Ratio	-	0.00			0.01			0.02			0.05		
95th% Queue	-	0			0			0			1		

All movements at this intersection operate within acceptable thresholds for both peak periods.

While the intersection is proposed to be upgraded to signal control as part of the corridor improvements, this change is not driven by capacity requirements under existing conditions.

Table 3.8: Traffic Operations Results – Esquimalt Road & Nelson Street (Future Conditions)

Proposed	Intersection	Esquimalt Road						Nelson Street					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Signal	-			Perm	-		-			Perm	-	
Laning		LTR			LTR			LTR			LTR		
Storage (m)		-			-			-			-		
AM Peak													
Volume	885	0	142	5	2	699	8	0	0	5	23	1	0
LOS / Delay	B / 14	A / 9			B / 14			A / 0			B / 20		
V/C Ratio	-	0.13			0.54			0.01			0.09		
95th% Queue	-	29			177			0			8		
PM Peak													
Volume	766	1	548	1	8	164	16	0	1	8	17	0	2
LOS / Delay	A / 7	A / 8			A / 6			B / 12			A / 0		
V/C Ratio	-	0.39			0.14			0.03			0.05		
95th% Queue	-	107			32			3			0		

Signal timing parameters were developed based on the PBX Engineering's Street Lighting & Signals 60% design drawings and Township markups. The signal timing includes 5-second leading pedestrian intervals (LPIs) when calls are present.

Under the proposed signalized configuration, all movements at the Esquimalt Road & Nelson Street intersection are expected to operate within acceptable thresholds during both the AM and PM peak periods. Higher queue lengths are observed for certain Esquimalt Road through movements under the proposed signalized condition, which is expected given the change from a free-flow to a signalized condition.

The modelled 95th percentile queue for the westbound through (WBT) movement during the AM peak period is approximately 177 m, which exceeds the available link length. As this result appears high relative to the forecasted traffic volumes, queueing was further reviewed using SimTraffic, which indicates a 95th percentile queue of 79 m. Based on these results, spillback is not expected to be a significant issue for this movement, and the Synchro estimate is expected to be overly conservative.

3.2.3 Esquimalt Road & Canteen Road

The analysis results for the existing and future traffic conditions are summarized in **Table 3.9** and **Table 3.10**, respectively. Detailed Synchro results are presented in the **Appendix**.

Table 3.9: Traffic Operations Results – Esquimalt Road & Canteen Road (Existing Conditions)

Current	Intersection	Esquimalt Road						Canteen Road					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Signal	Perm	-		Perm	-		Perm	-	Perm	Perm	-	Perm
Laning		LT-TR			LT-TR			LT		R	LT		R
Storage (m)		-			-			-		-	-		33
AM Peak													
Volume	771	13	28	11	179	323	153	13	15	12	11	11	2
LOS / Delay	A / 9	A / 7			A / 9			B / 11		A / 2	B / 11		A / 0
V/C Ratio	-	0.04			0.42			0.06		0.03	0.05		0.00
95th% Queue	-	5			36			5		1	5		0
PM Peak													
Volume	593	0	256	9	22	57	11	5	4	92	119	17	1
LOS / Delay	A / 8	A / 8			A / 7			A / 8		A / 3	B / 11		A / 0
V/C Ratio	-	0.19			0.08			0.02		0.19	0.37		0.00
95th% Queue	-	15			6			3		6	18		0

The existing configuration at the Esquimalt Road & Canteen Road intersection operates within acceptable thresholds during both the AM and PM peak periods. Traffic operations on Esquimalt Road remain efficient, with low delays, acceptable volume-to-capacity ratios, and minimal queueing observed.

Unlike the Admirals Road intersection, the eastbound and westbound approaches at Canteen Road do not include a dedicated left-turn storage bay or pavement markings. Instead, the left-most lane operates as a shared through/left lane. Based on field observations, most drivers utilize the left lane as an informal

left-turn lane; however, occasional instances were observed, primarily during the AM peak, where through vehicles were delayed behind left-turning vehicles.

Despite this behaviour, queue lengths remain short (generally within one to two vehicles), and the resulting delays are minor and do not materially affect overall intersection or corridor operations. During the PM peak period, queueing is further reduced, and the interaction between left-turn and through movements is negligible.

Table 3.10: Traffic Operations Results – Esquimalt Road & Canteen Road (Future Conditions)

Proposed	Intersection	Esquimalt Rd						Canteen Rd					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Signal	Perm	-		Perm	-		Perm		Perm	Perm	-	Perm
Laning		L	TR		L	TR		LT		R	LT		R
Storage (m)		80	-		36	-		-		-	-		33
AM Peak													
Volume	771	13	28	11	179	323	153	13	15	12	11	11	2
LOS / Delay	B / 11	A / 9	A / 7		A / 10	B / 12		B / 11		A / 2	B / 11		A / 0
V/C Ratio	-	0.03	0.05		0.25	0.48		0.07		0.03	0.05		0.00
95th% Queue	-	3	8		25	63		5		1	5		0
PM Peak													
Volume	593	0	256	9	22	57	11	5	4	92	119	17	1
LOS / Delay	A / 9	A / 0	A / 9		A / 8	A / 7		A / 9		A / 4	B / 12		A / 0
V/C Ratio	-	0.00	0.34		0.07	0.09		0.02		0.19	0.37		0.00
95th% Queue	-	0	34		6	9		3		6	19		0

Under the proposed geometry, all movements at the Esquimalt Road & Canteen Road intersection are expected to operate within acceptable thresholds during both the AM and PM peak periods.

The proposed design introduces a TWLTL along Esquimalt Road, allowing left-turning vehicles to queue within the centre lane without impeding through movements. This provides additional operational flexibility compared to the existing configuration and reduces the potential for interaction between left-turning and through vehicles.

The available westbound left-turn storage of approximately 36 m is sufficient to accommodate typical queueing at this location, and the absence of a physically constrained storage bay allows for additional capacity to accommodate higher-demand conditions without affecting corridor operations.

To further confirm the suitability of the proposed lane configuration at this location, a comparison of alternative lane arrangements was undertaken, as described in the lane configuration assessment in the next section.

Canteen Road at Esquimalt Road Lane Configuration Check

The analysis results for the traffic conditions with the alternate lane configuration at Esquimalt Road & Canteen Road's east leg are summarized in **Table 3.11**. Detailed Synchro results are presented in the **Appendix**.

Table 3.11: Traffic Operations Results – Esquimalt Road & Canteen Road (Alternate Future Conditions)

Proposed	Intersection	Esquimalt Rd						Canteen Rd					
2025	Overall	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control	Signal	Perm	-		Perm	-	Perm	Perm	-	Perm	Perm	-	Perm
Laning		L	TR		LT		R	LT		R	LT		R
Storage (m)		80	-		-		36	-		-	-		33
AM Peak													
Volume	771	13	28	11	179	323	153	13	15	12	11	11	2
LOS / Delay	B / 13	A / 9	A / 7		B / 17		A / 4	B / 11		A / 2	B / 11		A / 0
V/C Ratio	-	0.04	0.05		0.57		0.17	0.07		0.03	0.06		0.00
95th% Queue	-	3	8		91		9	5		1	5		0
PM Peak													
Volume	593	0	256	9	22	57	11	5	4	92	119	17	1
LOS / Delay	A / 9	A / 0	A / 9		A / 8		A / 2	A / 9		A / 4	B / 12		A / 0
V/C Ratio	-	0.00	0.34		0.12		0.02	0.02		0.19	0.37		0.00
95th% Queue	-	0	34		11		1	3		6	19		0

Under the alternate lane configuration, all movements at the Esquimalt Road & Canteen Road intersection continue to operate within acceptable thresholds during both the AM and PM peak periods.

When compared to the proposed lane configuration, the alternate configuration does not provide a meaningful improvement in overall intersection performance. While minor differences in delay and queueing are observed between configurations, these variations are not significant and do not materially affect operations.

Given that both configurations perform acceptably, the selection of lane arrangement may be guided by operational simplicity and consistency along the corridor. The proposed configuration, which aligns with the corridor-wide design approach and supports intuitive driver behaviour, is therefore considered appropriate for implementation.

3.2.4 Corridor Traffic Volumes Review for Road Diet

The peak hour corridor volumes on Esquimalt Road (as measured west of Admirals Road) are approximately:

- **Eastbound:** 180 AM / 570 PM
- **Westbound:** 730 AM / 190 PM

Industry guidance from the *National Cooperative Highway Research Program (NCHRP) Report 825: Planning Applications to the Highway Capacity Manual (HCM)*, provides planning-level capacity information relevant to assessing lane reduction feasibility. As shown in Exhibit 128 of this report (reproduced in **Table 3.12**), urban arterials typically operate with a practical per-lane capacity of approximately 800 vehicles per hour per lane. This value is commonly used as a screening threshold to determine whether traffic demand can be accommodated within a reduced cross-section.

For the purposes of this planning-level capacity screening, the Esquimalt Road & Admirals Road intersection was selected as the representative test location. This intersection carries the highest traffic volumes along the west segment of the corridor and represents the most operationally constrained location. As such, if the reduced two-lane cross-section can accommodate peak hour demand at this location, it is reasonable to conclude that the remaining study intersections would operate within acceptable thresholds under similar corridor conditions.

Table 3.12: NCHRP Report 825 Illustrative Per Lane Capacity Look Up Table

Functional Class	Area or Facility Type	Free-Flow Speed (mph)	Assumed *g/C*	HCM Capacity (pc/h/ln)	90% HCM Capacity (veh/h/ln)	80% HCM Capacity (veh/h/ln)
Freeway	Downtown	55	N/A	2,250	2,000	1,800
	Urban	60	N/A	2,300	2,100	1,800
	Suburban	65	N/A	2,350	2,100	1,900
	Rural	70	N/A	2,400	2,200	1,900
Arterial	Downtown	25	0.45	860	800	700
	Urban	35	0.45	860	800	700
	Suburban	45	0.41	780	700	600
	Rural Multilane	55	N/A	2,100	1,900	1,700
	Rural Two-lane	55	N/A	1,600	1,400	1,300
Collector	Downtown	25	0.41	780	700	600
	Urban	30	0.41	780	700	600
	Suburban	35	0.37	700	600	600
	Rural Multilane	45	N/A	1,900	1,700	1,500
	Rural Two-lane	45	N/A	1,600	1,400	1,300

When compared to the practical per-lane capacity of 800 veh/h/ln for urban arterials (at 90% HCM capacity) identified in **Table 3.12**, the AM and PM peak hour volumes are below the threshold levels. This indicates that the proposed lane reduction is likely feasible from a traffic operations perspective, however, this threshold is intended as a general screening tool rather than a strict warrant for additional lanes.

NCHRP Report 825 also notes that the operational performance of urban arterials is governed primarily by the **capacity of their controlling intersections**, not by mid-block lane count. Accordingly, evaluating intersection-level delay, volume-to-capacity (v/c) ratios, and queuing is the appropriate approach for assessing cross-section changes such as four- to two-lane conversions; this is consistent with HCM methodology. The detailed operational analysis presented in this study further assesses these volumes and confirms that the proposed two-lane cross-section can accommodate projected conditions at the study area intersections.

3.2.5 Corridor Delay Review for Pre/Post-Road Diet Conditions

To assess corridor-wide performance, SimTraffic was used to evaluate overall delay and vehicle interactions along Esquimalt Road under existing and proposed conditions for both AM and PM peak periods. **Table 3.13** summarizes the average corridor delay, with detailed outputs provided in the **Appendix**. The results indicate an increase in delay under the proposed condition, with AM peak delay increasing from 19.5 s/veh to 26.2 s/veh and PM peak delay increasing from 24.3 s/veh to 29.8 s/veh.

Table 3.13: SimTraffic Network Performance

Scenario	AM Delay (s/veh)	PM Delay (s/veh)
Existing	19.5	24.3
Future	26.2	29.8

Despite the minor increase in delay resulting from the addition of the traffic signal at Esquimalt Road & Nelson Street and the reduced lane capacity at Esquimalt Road & Admirals Road, overall corridor operations remain well within acceptable thresholds.

SimTraffic results also indicate a modest increase in stops per vehicle under the proposed condition, reflecting the introduction of signal control at the Esquimalt Road & Nelson Street intersection and reduced lane capacity along the corridor. Despite this, traffic continues to progress through the corridor with minimal delays, with all movements operating at LOS C or better.

ISL also reviewed the potential impacts of signal coordination along the corridor using Synchro and SimTraffic. The analysis indicates that coordination provides localized benefits to queueing at certain movements, but results in mixed impacts to overall corridor delay, with only minor changes observed at the network level. Given the limited and inconsistent benefits identified, signal coordination is not recommended at this time.

Overall, the proposed road diet can be accommodated from a corridor perspective, providing overall improvements for active transportation and the public realm throughout the corridor, while keeping the level of service for traffic well within desired operational thresholds.

4.0 Conclusions & Recommendations

This study evaluated 2025 traffic operations along the Esquimalt Road corridor at key intersections including Admirals Road, Canteen Road, and Nelson Street under existing and proposed conditions. The analysis assessed the operational impacts of reducing the western segment of Esquimalt Road from four lanes to two lanes as part of Phase 2 of the Project.

The operational analysis indicates that the proposed two-lane cross-section can generally accommodate projected 2025 traffic volumes along the corridor. Under both peak periods, all intersections operate within acceptable thresholds with the proposed geometry, with the eastbound left-turn movement at Admirals Road representing the most constrained condition during the PM peak period, although operations remain within acceptable thresholds.

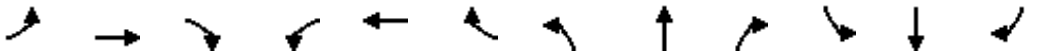
Based on the analysis, the following conclusions and recommendations are provided for consideration during detailed design:

- The analysis confirms the feasibility of reducing the western segment of Esquimalt Road from four to two lanes from an operational perspective.
- At the Esquimalt Road & Admirals Road intersection, the proposed EBL storage length of approximately 26 m is shorter than the modelled 95th percentile queue; however, 50th percentile queues and field observations indicate that typical queue lengths are accommodated within or near the available storage. Queues are expected to clear within each signal cycle, with no spillback to upstream intersections and only minor increases in delay.
- At the Esquimalt Road & Canteen Road intersection, operations remain efficient under the proposed configuration, with LOS A to B conditions observed. The proposed lane configuration provides sufficient flexibility for turning movements without constraining through traffic, and no operational issues were identified.
- The proposed signalization of the Esquimalt Road & Nelson Street intersection is not driven by capacity requirements and can be accommodated within the corridor without operational constraints. Signal coordination with the Admirals Road intersection was assessed and found to provide localized benefits to queueing but mixed impacts to overall corridor delay. As such, coordination is not considered necessary to support corridor operations and is not recommended at this time.
- Corridor-level analysis indicates a modest increase in delay under the proposed condition (approximately 5 seconds), with overall performance remaining within acceptable thresholds. No material impacts to corridor operations, progression, or upstream intersections are expected.

Overall, the proposed road diet for the Esquimalt Road corridor is operationally feasible under the proposed design, with only minor increases in delay and no material impacts to corridor performance.

APPENDIX A
Detailed Synchro/HCM/SimTraffic Reports

APPENDIX A
Detailed Synchro/HCM/SimTraffic Reports

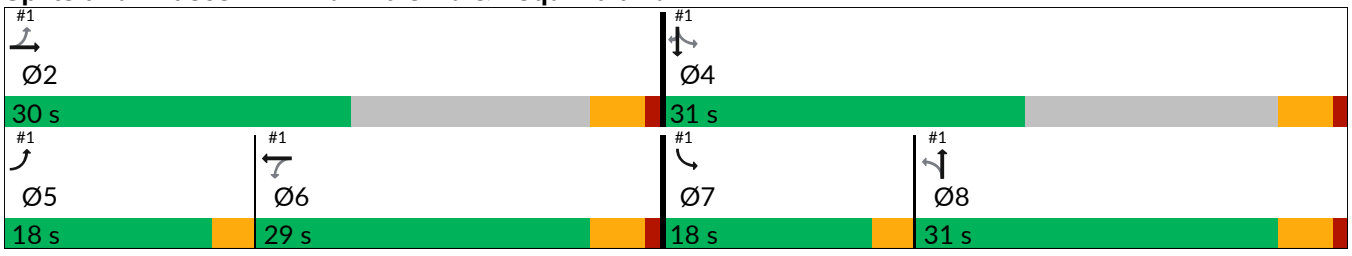


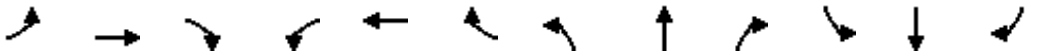
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	100	8	13	294	111	1	123	12	138	86	430
Future Volume (vph)	76	100	8	13	294	111	1	123	12	138	86	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	20.0		25.0	0.0		0.0	0.0		35.0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	1.00		0.97	0.98			0.99			0.97	0.97
Frt		0.988			0.959			0.988				0.850
Flt Protected	0.950			0.950							0.970	
Satd. Flow (prot)	1807	1688	0	1825	3325	0	0	1850	0	0	1785	1601
Flt Permitted	0.369			0.683				0.997			0.657	
Satd. Flow (perm)	688	1688	0	1279	3325	0	0	1844	0	0	1174	1547
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			54			5				457
Link Speed (k/h)		40			40			30			40	
Link Distance (m)		156.3			336.4			182.1			353.4	
Travel Time (s)		14.1			30.3			21.9			31.8	
Confl. Peds. (#/hr)	22		15	15		22	20		37	37		20
Confl. Bikes (#/hr)			6			29			10			10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	13%	0%	0%	4%	2%	0%	2%	0%	4%	5%	2%
Adj. Flow (vph)	81	106	9	14	313	118	1	131	13	147	91	457
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	115	0	14	431	0	0	145	0	0	238	457
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4 7	4
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	10.0	29.0		29.0	29.0		31.0	31.0		10.0	31.0	31.0
Total Split (s)	18.0	30.0		29.0	29.0		31.0	31.0		18.0	31.0	31.0
Total Split (%)	18.8%	31.3%		30.2%	30.2%		32.3%	32.3%		18.8%	32.3%	32.3%
Maximum Green (s)	15.0	25.0		24.0	24.0		26.0	26.0		15.0	26.0	26.0
Yellow Time (s)	3.0	4.0		4.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	3.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	None		None	None		None	Min	Min
Walk Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	6.0
Flash Don't Walk (s)		18.0		18.0	18.0		20.0	20.0			20.0	20.0
Pedestrian Calls (#/hr)		15		22	22		37	37			20	20
Act Effct Green (s)	27.5	25.0		16.1	16.1			15.0			27.6	27.6
Actuated g/C Ratio	0.42	0.38		0.25	0.25			0.23			0.42	0.42
v/c Ratio	0.17	0.18		0.04	0.50			0.34			0.39	0.50
Control Delay (s/veh)	14.8	15.4		25.0	23.2			26.6			15.1	3.5
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay (s/veh)	14.8	15.4		25.0	23.2			26.6			15.1	3.5
LOS	B	B		C	C			C			B	A
Approach Delay (s/veh)		15.1			23.3			26.6			7.5	
Approach LOS		B			C			C			A	
Queue Length 50th (m)	5.3	8.6		1.3	21.0			15.6			18.3	0.0
Queue Length 95th (m)	16.7	25.0		6.5	45.1			35.3			41.4	15.3
Internal Link Dist (m)		132.3			312.4			158.1			329.4	
Turn Bay Length (m)				20.0								35.0
Base Capacity (vph)	642	1144		589	1561			915			974	1219
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.13	0.10		0.02	0.28			0.16			0.24	0.37

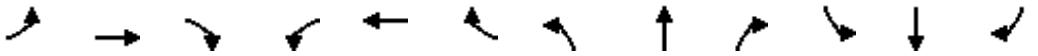
Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 65			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.50			
Intersection Signal Delay (s/veh): 15.1		Intersection LOS: B	
Intersection Capacity Utilization 74.9%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Admirals Rd & Esquimalt Rd





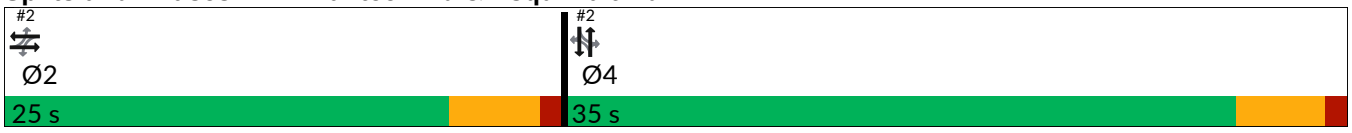
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	28	11	179	323	153	13	15	12	11	11	2
Future Volume (vph)	13	28	11	179	323	153	13	15	12	11	11	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		0.0	0.0		33.0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			0.99	0.96		0.99	0.98
Frt		0.969			0.965				0.850			0.850
Flt Protected		0.987			0.987			0.977			0.976	
Satd. Flow (prot)	0	2774	0	0	3370	0	0	1877	1512	0	1794	1633
Flt Permitted		0.835			0.844			0.873			0.868	
Satd. Flow (perm)	0	2345	0	0	2868	0	0	1662	1455	0	1576	1601
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			72				36			36
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		172.9			406.9			123.5			102.9	
Travel Time (s)		15.6			36.6			11.1			9.3	
Confl. Peds. (#/hr)	9		13	13		9	22		29	29		22
Confl. Bikes (#/hr)			1			16			9			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	46%	0%	6%	1%	1%	0%	0%	8%	0%	9%	0%
Adj. Flow (vph)	16	34	13	218	394	187	16	18	15	13	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	63	0	0	799	0	0	34	15	0	26	2
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		4
Detector Phase	2	2		2	2		4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	20.0	20.0		20.0	20.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Lead/Lag												

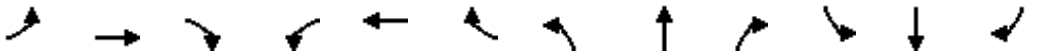


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	1.0	1.0	1.0	1.0	1.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Don't Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0
Pedestrian Calls (#/hr)	22	22		22	22		51	51	51	51	51	51
Act Effct Green (s)		28.8			28.8			14.1	14.1		14.1	14.1
Actuated g/C Ratio		0.66			0.66			0.32	0.32		0.32	0.32
v/c Ratio		0.04			0.42			0.06	0.03		0.05	0.00
Control Delay (s/veh)		7.4			9.0			10.5	2.0		10.5	0.0
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)		7.4			9.0			10.5	2.0		10.5	0.0
LOS		A			A			B	A		B	A
Approach Delay (s/veh)		7.4			9.0			7.9			9.7	
Approach LOS		A			A			A			A	
Queue Length 50th (m)		1.8			26.4			2.4	0.0		2.0	0.0
Queue Length 95th (m)		5.0			36.3			5.1	1.2		4.6	0.0
Internal Link Dist (m)		148.9			382.9			99.5			78.9	
Turn Bay Length (m)												33.0
Base Capacity (vph)		1558			1925			1225	1082		1162	1190
Starvation Cap Reductn		0			0			0	0		0	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.04			0.42			0.03	0.01		0.02	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 43.4			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.42			
Intersection Signal Delay (s/veh): 8.9		Intersection LOS: A	
Intersection Capacity Utilization 55.8%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 2: Canteen Rd & Esquimalt Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	142	5	2	699	8	0	0	5	23	1	0
Future Volume (vph)	0	142	5	2	699	8	0	0	5	23	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.995			0.998			0.865				
Flt Protected											0.954	
Satd. Flow (prot)	0	3070	0	0	3572	0	0	1662	0	0	1833	0
Flt Permitted											0.954	
Satd. Flow (perm)	0	3070	0	0	3572	0	0	1662	0	0	1833	0
Link Speed (k/h)		40			40			30			30	
Link Distance (m)		406.9			156.3			168.5			111.9	
Travel Time (s)		36.6			14.1			20.2			13.4	
Confl. Peds. (#/hr)	26		3	3		26	20		1	1		20
Confl. Bikes (#/hr)			4			35			1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	19%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	158	6	2	777	9	0	0	6	26	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	788	0	0	6	0	0	27	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	38.3%	ICU Level of Service	A
Analysis Period (min)	15		

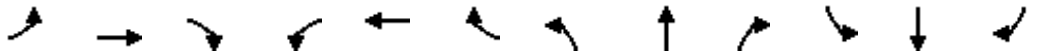
Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	142	5	2	699	8	0	0	5	23	1	0
Future Vol, veh/h	0	142	5	2	699	8	0	0	5	23	1	0
Conflicting Peds, #/hr	26	0	3	3	0	26	20	0	1	1	0	20
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	19	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	0	158	6	2	777	9	0	0	6	26	1	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	812	0	0	166	0	0	577	980	86	891	978	439
Stage 1	-	-	-	-	-	-	164	164	-	812	812	-
Stage 2	-	-	-	-	-	-	413	816	-	80	166	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	824	-	-	1424	-	-	404	252	963	240	252	571
Stage 1	-	-	-	-	-	-	828	767	-	344	395	-
Stage 2	-	-	-	-	-	-	592	393	-	925	765	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	803	-	-	1420	-	-	392	244	959	232	245	546
Mov Cap-2 Maneuver	-	-	-	-	-	-	392	244	-	232	245	-
Stage 1	-	-	-	-	-	-	826	764	-	334	385	-
Stage 2	-	-	-	-	-	-	578	383	-	919	762	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0	0.04	8.78	22.48
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	959	803	-	-	10	-	-	233
HCM Lane V/C Ratio	0.006	-	-	-	0.002	-	-	0.115
HCM Ctrl Dly (s/v)	8.8	0	-	-	7.5	0	-	22.5
HCM Lane LOS	A	A	-	-	A	A	-	C
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.4

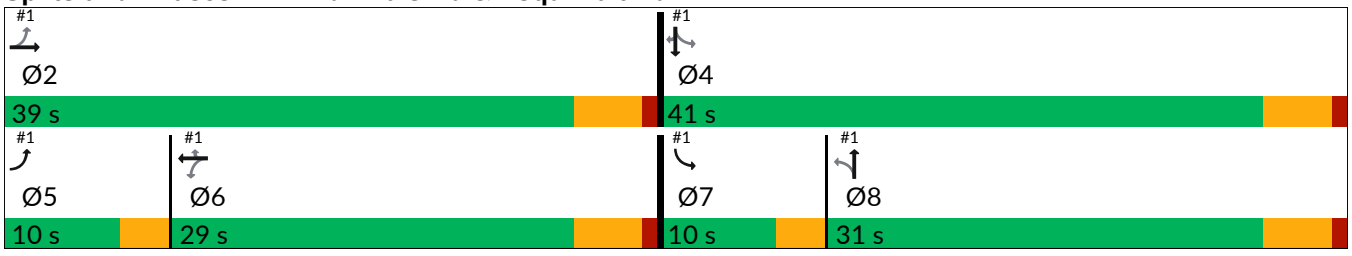


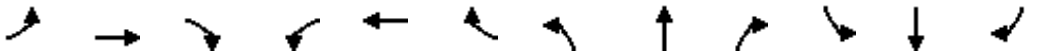
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	100	8	13	294	111	1	123	12	138	86	430
Future Volume (vph)	76	100	8	13	294	111	1	123	12	138	86	430
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	26.0		0.0	20.0		25.0	0.0		0.0	0.0		35.0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98	1.00		0.98		0.94		0.99			0.97	0.95
Frt		0.988				0.850		0.988				0.850
Flt Protected	0.950			0.950							0.970	
Satd. Flow (prot)	1807	1689	0	1825	1847	1601	0	1852	0	0	1785	1601
Flt Permitted	0.393			0.683				0.998			0.698	
Satd. Flow (perm)	733	1689	0	1284	1847	1511	0	1848	0	0	1252	1521
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7				109		7				430
Link Speed (k/h)		40			40			30			40	
Link Distance (m)		153.5			336.4			182.1			353.4	
Travel Time (s)		13.8			30.3			21.9			31.8	
Confl. Peds. (#/hr)	22		15	15		22	20		37	37		20
Confl. Bikes (#/hr)			6			29			10			10
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	1%	13%	0%	0%	4%	2%	0%	2%	0%	4%	5%	2%
Adj. Flow (vph)	81	106	9	14	313	118	1	131	13	147	91	457
Shared Lane Traffic (%)												
Lane Group Flow (vph)	81	115	0	14	313	118	0	145	0	0	238	457
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		6	6	6	8	8		7	4 7	4
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	10.0	29.0		29.0	29.0	29.0	31.0	31.0		10.0	31.0	31.0
Total Split (s)	10.0	39.0		29.0	29.0	29.0	31.0	31.0		10.0	41.0	41.0
Total Split (%)	12.5%	48.8%		36.3%	36.3%	36.3%	38.8%	38.8%		12.5%	51.3%	51.3%
Maximum Green (s)	7.0	34.0		24.0	24.0	24.0	26.0	26.0		7.0	36.0	36.0
Yellow Time (s)	3.0	4.0		4.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	1.0		1.0	1.0	1.0	1.0	1.0		0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	5.0		5.0	5.0	5.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag	Lag	Lag		Lead		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	None	None	None	None		None	Min	Min
Walk Time (s)		6.0		6.0	6.0	6.0	6.0	6.0			6.0	6.0
Flash Don't Walk (s)		18.0		18.0	18.0	18.0	20.0	20.0			20.0	20.0
Pedestrian Calls (#/hr)		15		22	22	22	37	37			20	20
Act Effct Green (s)	24.4	22.0		17.2	17.2	17.2		14.7			22.3	22.3
Actuated g/C Ratio	0.43	0.39		0.30	0.30	0.30		0.26			0.39	0.39
v/c Ratio	0.17	0.17		0.04	0.56	0.22		0.30			0.43	0.53
Control Delay (s/veh)	12.1	12.8		19.3	24.0	6.8		20.7			16.0	4.6
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	12.1	12.8		19.3	24.0	6.8		20.7			16.0	4.6
LOS	B	B		B	C	A		C			B	A
Approach Delay (s/veh)		12.5			19.3			20.7			8.5	
Approach LOS		B			B			C			A	
Queue Length 50th (m)	3.9	6.4		1.0	27.6	0.7		13.6			19.6	1.9
Queue Length 95th (m)	14.4	21.6		5.5	66.3	12.1		28.9			38.6	18.2
Internal Link Dist (m)		129.5			312.4			158.1			329.4	
Turn Bay Length (m)	26.0			20.0		25.0						35.0
Base Capacity (vph)	478	1113		664	955	834		1019			914	1176
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.17	0.10		0.02	0.33	0.14		0.14			0.26	0.39

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 56.5			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.56			
Intersection Signal Delay (s/veh): 13.5		Intersection LOS: B	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 1: Admirals Rd & Esquimalt Rd





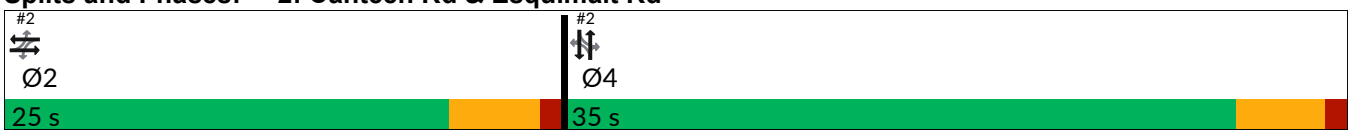
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	28	11	179	323	153	13	15	12	11	11	2
Future Volume (vph)	13	28	11	179	323	153	13	15	12	11	11	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	36.0		0.0	0.0		0.0	0.0		33.0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	0.99		0.98	0.99			0.99	0.94		0.98	0.97
Frt		0.959			0.952				0.850			0.850
Flt Protected	0.950			0.950				0.977			0.976	
Satd. Flow (prot)	1825	1367	0	1722	1791	0	0	1877	1512	0	1794	1633
Flt Permitted	0.372			0.726				0.874			0.869	
Satd. Flow (perm)	712	1367	0	1292	1791	0	0	1654	1417	0	1564	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13			43				36			36
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		172.9			409.3			123.5			102.9	
Travel Time (s)		15.6			36.8			11.1			9.3	
Confl. Peds. (#/hr)	9		13	13		9	22		29	29		22
Confl. Bikes (#/hr)			1			16			9			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	46%	0%	6%	1%	1%	0%	0%	8%	0%	9%	0%
Adj. Flow (vph)	16	34	13	218	394	187	16	18	15	13	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	47	0	218	581	0	0	34	15	0	26	2
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		4
Detector Phase	2	2		2	2		4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	20.0	20.0		20.0	20.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	1.0	1.0	1.0	1.0	1.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Don't Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0
Pedestrian Calls (#/hr)	22	22		22	22		51	51	51	51	51	51
Act Effct Green (s)	30.8	30.8		30.8	30.8			14.1	14.1		14.1	14.1
Actuated g/C Ratio	0.67	0.67		0.67	0.67			0.31	0.31		0.31	0.31
v/c Ratio	0.03	0.05		0.25	0.48			0.07	0.03		0.05	0.00
Control Delay (s/veh)	9.3	7.4		9.9	12.1			11.1	2.0		10.9	0.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)	9.3	7.4		9.9	12.1			11.1	2.0		10.9	0.0
LOS	A	A		A	B			B	A		B	A
Approach Delay (s/veh)		7.9			11.5			8.3			10.1	
Approach LOS		A			B			A			B	
Queue Length 50th (m)	0.8	2.4		13.9	40.0			2.8	0.0		2.3	0.0
Queue Length 95th (m)	3.3	7.8		25.3	#63.4			5.1	1.2		4.6	0.0
Internal Link Dist (m)		148.9			385.3			99.5			78.9	
Turn Bay Length (m)	80.0			36.0								33.0
Base Capacity (vph)	478	922		867	1216			1170	1013		1106	1128
Starvation Cap Reductn	0	0		0	0			0	0		0	0
Spillback Cap Reductn	0	0		0	0			0	0		0	0
Storage Cap Reductn	0	0		0	0			0	0		0	0
Reduced v/c Ratio	0.03	0.05		0.25	0.48			0.03	0.01		0.02	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 45.9			
Natural Cycle: 55			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.48			
Intersection Signal Delay (s/veh): 11.0		Intersection LOS: B	
Intersection Capacity Utilization 63.1%		ICU Level of Service B	
Analysis Period (min) 15			

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

Splits and Phases: 2: Canteen Rd & Esquimalt Rd



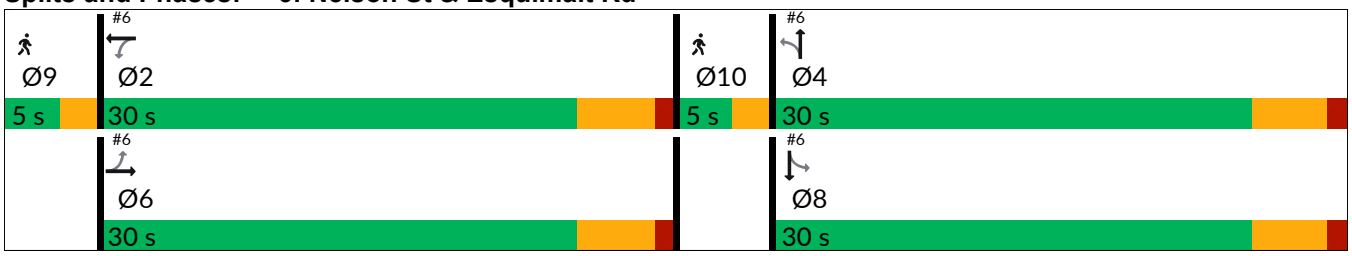
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	142	5	2	699	8	0	0	5	23	1	0
Future Volume (vph)	0	142	5	2	699	8	0	0	5	23	1	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.98			1.00	
Frt		0.995			0.998			0.865				
Flt Protected											0.954	
Satd. Flow (prot)	0	1614	0	0	1879	0	0	1626	0	0	1833	0
Flt Permitted											0.730	
Satd. Flow (perm)	0	1614	0	0	1879	0	0	1626	0	0	1400	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			1			701				
Link Speed (k/h)		40			40			30			30	
Link Distance (m)		409.3			153.5			168.5			111.9	
Travel Time (s)		36.8			13.8			20.2			13.4	
Confl. Peds. (#/hr)	26		3	3		26	20		1	1		20
Confl. Bikes (#/hr)			4			35			1			
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Heavy Vehicles (%)	0%	19%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	158	6	2	777	9	0	0	6	26	1	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	164	0	0	788	0	0	6	0	0	27	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type		NA		Perm	NA			NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		42.9%	42.9%		42.9%	42.9%	
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	

Lane Group	Ø9	Ø10
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(m)		
Link Offset(m)		
Crosswalk Width(m)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (k/h)		
Turn Type		
Protected Phases	9	10
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	7%	7%
Maximum Green (s)	3.0	3.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	10.0	10.0		11.0	11.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	3	3		26	26		1	1		20	20	
Act Effct Green (s)		44.5			44.5			11.7			11.7	
Actuated g/C Ratio		0.78			0.78			0.21			0.21	
v/c Ratio		0.13			0.54			0.01			0.09	
Control Delay (s/veh)		8.7			14.4			0.0			19.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		8.7			14.4			0.0			19.6	
LOS		A			B			A			B	
Approach Delay (s/veh)		8.7			14.4						19.6	
Approach LOS		A			B						B	
Queue Length 50th (m)		0.0			0.0			0.0			1.9	
Queue Length 95th (m)		29.0			#177.1			0.0			7.6	
Internal Link Dist (m)		385.3			129.5			144.5			87.9	
Turn Bay Length (m)												
Base Capacity (vph)		1260			1466			1133			654	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.13			0.54			0.01			0.04	

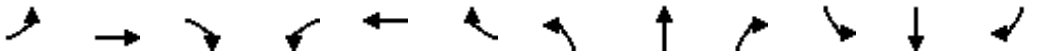
Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 57			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.54			
Intersection Signal Delay (s/veh): 13.5		Intersection LOS: B	
Intersection Capacity Utilization 59.8%		ICU Level of Service B	
Analysis Period (min) 15			
# 95th percentile volume exceeds capacity, queue may be longer.			
Queue shown is maximum after two cycles.			

Splits and Phases: 6: Nelson St & Esquimalt Rd



Lane Group	Ø9	Ø10
Walk Time (s)	3.0	3.0
Flash Don't Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	29	21
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

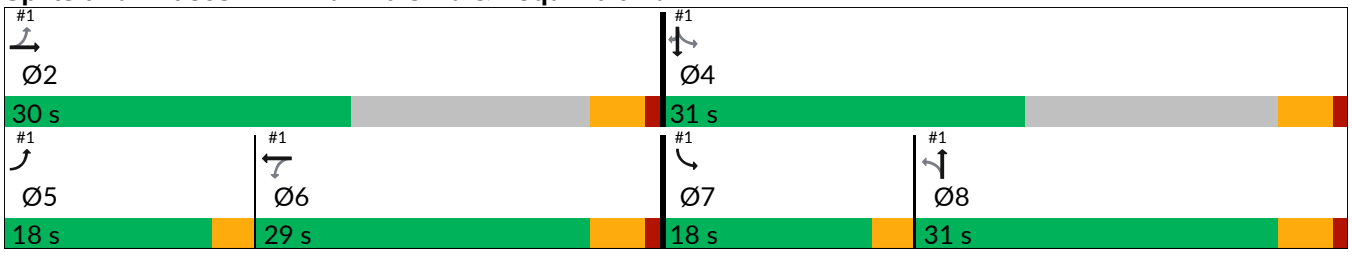


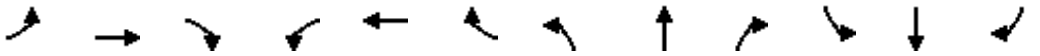
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	295	13	41	101	128	11	142	31	216	129	82
Future Volume (vph)	263	295	13	41	101	128	11	142	31	216	129	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	20.0		25.0	0.0		0.0	0.0		35.0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.91	1.00		0.97	0.91			0.98			0.96	0.93
Frt		0.993			0.916			0.977				0.850
Flt Protected	0.950			0.950				0.997			0.970	
Satd. Flow (prot)	1789	1832	0	1825	2914	0	0	1821	0	0	1845	1555
Flt Permitted	0.525			0.566				0.969			0.532	
Satd. Flow (perm)	896	1832	0	1057	2914	0	0	1766	0	0	974	1449
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			133			10				85
Link Speed (k/h)		40			40			30			40	
Link Distance (m)		156.3			336.4			182.1			353.4	
Travel Time (s)		14.1			30.3			21.9			31.8	
Confl. Peds. (#/hr)	70		22	22		70	52		53	53		52
Confl. Bikes (#/hr)			22			2			9			11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	4%	0%	0%	8%	2%	0%	1%	0%	1%	1%	5%
Adj. Flow (vph)	274	307	14	43	105	133	11	148	32	225	134	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	321	0	43	238	0	0	191	0	0	359	85
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	pm+pt	NA		Perm	NA		Perm	NA		pm+pt	NA	Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6			8			4		4
Detector Phase	5	2		6	6		8	8		7	4 7	4
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	10.0	29.0		29.0	29.0		31.0	31.0		10.0	31.0	31.0
Total Split (s)	18.0	30.0		29.0	29.0		31.0	31.0		18.0	31.0	31.0
Total Split (%)	18.8%	31.3%		30.2%	30.2%		32.3%	32.3%		18.8%	32.3%	32.3%
Maximum Green (s)	15.0	25.0		24.0	24.0		26.0	26.0		15.0	26.0	26.0
Yellow Time (s)	3.0	4.0		4.0	4.0		4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	1.0		1.0	1.0		1.0	1.0		0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	3.0	5.0		5.0	5.0			5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag		Lag	Lag		Lead		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes			Yes	Yes		Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	None		None	None		None	Min	Min
Walk Time (s)		6.0		6.0	6.0		6.0	6.0			6.0	6.0
Flash Don't Walk (s)		18.0		18.0	18.0		20.0	20.0			20.0	20.0
Pedestrian Calls (#/hr)		22		70	70		53	53			52	52
Act Effct Green (s)	39.2	37.1		19.9	19.9			18.5			36.1	36.1
Actuated g/C Ratio	0.47	0.44		0.24	0.24			0.22			0.43	0.43
v/c Ratio	0.48	0.40		0.17	0.30			0.48			0.66	0.13
Control Delay (s/veh)	18.5	18.5		29.7	14.2			32.2			24.4	4.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay (s/veh)	18.5	18.5		29.7	14.2			32.2			24.4	4.0
LOS	B	B		C	B			C			C	A
Approach Delay (s/veh)		18.5			16.6			32.2			20.5	
Approach LOS		B			B			C			C	
Queue Length 50th (m)	31.9	40.3		6.3	8.5			27.5			43.7	0.0
Queue Length 95th (m)	50.4	62.2		15.1	18.6			46.8			66.2	8.0
Internal Link Dist (m)		132.3			312.4			158.1			329.4	
Turn Bay Length (m)				20.0								35.0
Base Capacity (vph)	589	981		323	983			591			690	849
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.47	0.33		0.13	0.24			0.32			0.52	0.10

Intersection Summary			
Area Type:	Other		
Cycle Length: 96			
Actuated Cycle Length: 83.8			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.66			
Intersection Signal Delay (s/veh): 20.4		Intersection LOS: C	
Intersection Capacity Utilization 90.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Admirals Rd & Esquimalt Rd



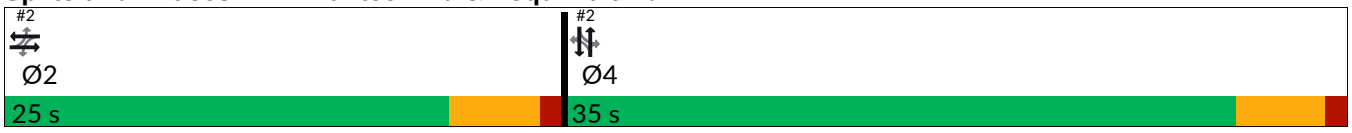


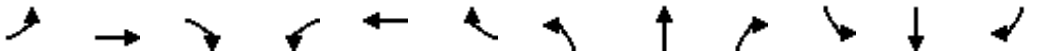
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	256	9	22	57	11	5	4	92	119	17	1
Future Volume (vph)	0	256	9	22	57	11	5	4	92	119	17	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		0.0	0.0		33.0
Storage Lanes	0		0	0		0	0		1	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			0.99	0.99		0.99	0.97
Frt		0.995			0.981				0.850			0.850
Flt Protected					0.988			0.973			0.958	
Satd. Flow (prot)	0	3460	0	0	3218	0	0	1869	1633	0	1840	1633
Flt Permitted					0.859			0.801			0.745	
Satd. Flow (perm)	0	3460	0	0	2789	0	0	1528	1615	0	1418	1587
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			13				106			36
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		172.9			406.9			123.5			102.9	
Travel Time (s)		15.6			36.6			11.1			9.3	
Confl. Peds. (#/hr)	4		13	13		4	18		12	12		18
Confl. Bikes (#/hr)			19									6
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	5%	0%	41%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	294	10	25	66	13	6	5	106	137	20	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	0	104	0	0	11	106	0	157	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type		NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		4
Detector Phase	2	2		2	2		4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	20.0	20.0		20.0	20.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)		0.0			0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)		5.0			5.0			5.0	5.0		5.0	5.0
Lead/Lag												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	1.0	1.0	1.0	1.0	1.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Don't Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0
Pedestrian Calls (#/hr)	17	17		17	17		30	30	30	30	30	30
Act Effct Green (s)		14.4			14.4			9.1	9.1		9.1	9.1
Actuated g/C Ratio		0.47			0.47			0.30	0.30		0.30	0.30
v/c Ratio		0.19			0.08			0.02	0.19		0.37	0.00
Control Delay (s/veh)		7.5			7.0			8.1	3.4		11.4	0.0
Queue Delay		0.0			0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)		7.5			7.0			8.1	3.4		11.4	0.0
LOS		A			A			A	A		B	A
Approach Delay (s/veh)		7.5			7.0			3.9			11.3	
Approach LOS		A			A			A			B	
Queue Length 50th (m)		4.1			1.1			0.3	0.0		4.5	0.0
Queue Length 95th (m)		15.1			5.7			2.6	6.1		18.4	0.0
Internal Link Dist (m)		148.9			382.9			99.5			78.9	
Turn Bay Length (m)												33.0
Base Capacity (vph)		2905			2343			1406	1494		1304	1463
Starvation Cap Reductn		0			0			0	0		0	0
Spillback Cap Reductn		0			0			0	0		0	0
Storage Cap Reductn		0			0			0	0		0	0
Reduced v/c Ratio		0.10			0.04			0.01	0.07		0.12	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 30.6			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay (s/veh): 7.7		Intersection LOS: A	
Intersection Capacity Utilization 44.9%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Canteen Rd & Esquimalt Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	548	1	8	164	16	0	1	8	17	0	2
Future Volume (vph)	1	548	1	8	164	16	0	1	8	17	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt					0.987			0.878			0.986	
Flt Protected					0.998						0.957	
Satd. Flow (prot)	0	3544	0	0	3334	0	0	1687	0	0	1813	0
Flt Permitted					0.998						0.957	
Satd. Flow (perm)	0	3544	0	0	3334	0	0	1687	0	0	1813	0
Link Speed (k/h)		40			40			30			30	
Link Distance (m)		406.9			156.3			168.5			111.9	
Travel Time (s)		36.6			14.1			20.2			13.4	
Confl. Peds. (#/hr)	13					13	19		2	2		19
Confl. Bikes (#/hr)			25			4						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	3%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	1	589	1	9	176	17	0	1	9	18	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	591	0	0	202	0	0	10	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Sign Control		Free			Free			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization	33.0%	ICU Level of Service	A
Analysis Period (min)	15		

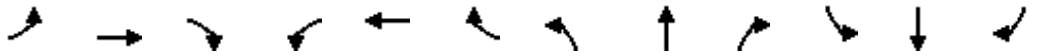
Intersection	
Int Delay, s/veh	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑			↑↑			↑			↑	
Traffic Vol, veh/h	1	548	1	8	164	16	0	1	8	17	0	2
Future Vol, veh/h	1	548	1	8	164	16	0	1	8	17	0	2
Conflicting Peds, #/hr	13	0	0	0	0	13	19	0	2	2	0	19
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	3	0	0	9	0	0	0	0	0	0	0
Mvmt Flow	1	589	1	9	176	17	0	1	9	18	0	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	207	0	0	590	0	0	716	816	297	514	808	129
Stage 1	-	-	-	-	-	-	592	592	-	215	215	-
Stage 2	-	-	-	-	-	-	124	224	-	299	592	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1377	-	-	995	-	-	321	314	705	448	317	904
Stage 1	-	-	-	-	-	-	465	497	-	773	728	-
Stage 2	-	-	-	-	-	-	872	722	-	691	497	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1359	-	-	995	-	-	311	307	704	430	310	876
Mov Cap-2 Maneuver	-	-	-	-	-	-	311	307	-	430	310	-
Stage 1	-	-	-	-	-	-	464	497	-	756	713	-
Stage 2	-	-	-	-	-	-	846	707	-	679	496	-

Approach	EB	WB	NB	SB
HCM Ctrl Dly, s/v	0.02	0.43	10.94	13.3
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	615	7	-	-	136	-	-	454
HCM Lane V/C Ratio	0.016	0.001	-	-	0.009	-	-	0.045
HCM Ctrl Dly (s/v)	10.9	7.7	0	-	8.6	0.1	-	13.3
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-	0.1

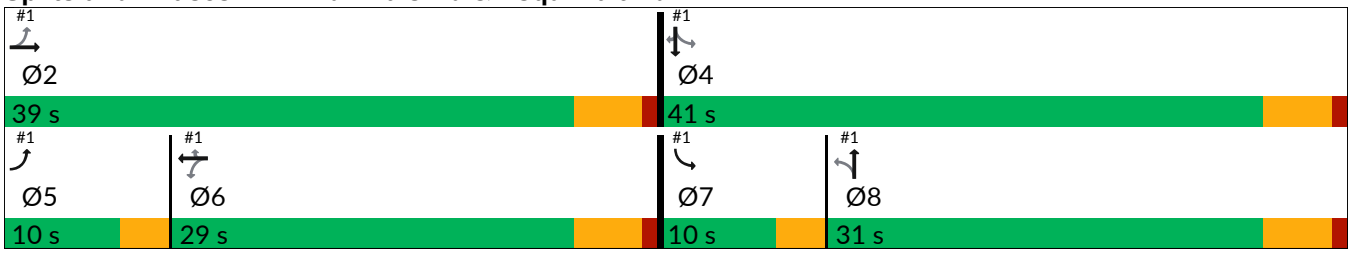


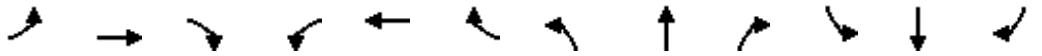
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	263	295	13	41	101	128	11	142	31	216	129	82
Future Volume (vph)	263	295	13	41	101	128	11	142	31	216	129	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	26.0		0.0	20.0		25.0	0.0		0.0	0.0		35.0
Storage Lanes	1		0	1		1	0		0	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.91	1.00		0.98		0.87		0.98			0.97	0.90
Frt		0.993				0.850		0.977				0.850
Flt Protected	0.950			0.950				0.997			0.970	
Satd. Flow (prot)	1789	1833	0	1825	1779	1601	0	1826	0	0	1845	1555
Flt Permitted	0.565			0.566				0.971			0.610	
Satd. Flow (perm)	964	1833	0	1062	1779	1386	0	1773	0	0	1122	1402
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4				133		13				85
Link Speed (k/h)		40			40			30			40	
Link Distance (m)		153.5			336.4			182.1			353.4	
Travel Time (s)		13.8			30.3			21.9			31.8	
Confl. Peds. (#/hr)	70		22	22		70	52		53	53		52
Confl. Bikes (#/hr)			22			2			9			11
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	2%	4%	0%	0%	8%	2%	0%	1%	0%	1%	1%	5%
Adj. Flow (vph)	274	307	14	43	105	133	11	148	32	225	134	85
Shared Lane Traffic (%)												
Lane Group Flow (vph)	274	321	0	43	105	133	0	191	0	0	359	85
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	pm+pt	NA		Perm	NA	Perm	Perm	NA		pm+pt	NA	Perm
Protected Phases	5	2			6			8		7	4	
Permitted Phases	2			6		6	8			4		4
Detector Phase	5	2		6	6	6	8	8		7	4 7	4
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	10.0	29.0		29.0	29.0	29.0	31.0	31.0		10.0	31.0	31.0
Total Split (s)	10.0	39.0		29.0	29.0	29.0	31.0	31.0		10.0	41.0	41.0
Total Split (%)	12.5%	48.8%		36.3%	36.3%	36.3%	38.8%	38.8%		12.5%	51.3%	51.3%
Maximum Green (s)	7.0	34.0		24.0	24.0	24.0	26.0	26.0		7.0	36.0	36.0
Yellow Time (s)	3.0	4.0		4.0	4.0	4.0	4.0	4.0		3.0	4.0	4.0
All-Red Time (s)	0.0	1.0		1.0	1.0	1.0	1.0	1.0		0.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Lost Time (s)	3.0	5.0		5.0	5.0	5.0		5.0			5.0	5.0
Lead/Lag	Lead			Lag	Lag	Lag	Lag	Lag		Lead		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?	Yes			Yes	Yes	Yes	Yes	Yes		Yes		
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	Min		None	None	None	None	None		None	Min	Min
Walk Time (s)		6.0		6.0	6.0	6.0	6.0	6.0			6.0	6.0
Flash Don't Walk (s)		18.0		18.0	18.0	18.0	20.0	20.0			20.0	20.0
Pedestrian Calls (#/hr)		22		70	70	70	53	53			52	52
Act Effct Green (s)	26.5	24.2		16.1	16.1	16.1		18.1			29.3	29.3
Actuated g/C Ratio	0.41	0.37		0.25	0.25	0.25		0.28			0.45	0.45
v/c Ratio	0.54	0.47		0.16	0.24	0.30		0.38			0.63	0.13
Control Delay (s/veh)	18.4	17.7		22.2	22.3	6.5		20.9			20.7	3.8
Queue Delay	0.0	0.0		0.0	0.0	0.0		0.0			0.0	0.0
Total Delay (s/veh)	18.4	17.7		22.2	22.3	6.5		20.9			20.7	3.8
LOS	B	B		C	C	A		C			C	A
Approach Delay (s/veh)		18.0			14.8			20.9			17.5	
Approach LOS		B			B			C			B	
Queue Length 50th (m)	26.4	33.4		4.7	12.6	0.0		20.2			36.1	0.0
Queue Length 95th (m)	43.5	54.1		12.2	24.8	11.7		36.6			57.2	7.4
Internal Link Dist (m)		129.5			312.4			158.1			329.4	
Turn Bay Length (m)	26.0			20.0		25.0						35.0
Base Capacity (vph)	509	1081		441	739	653		806			758	901
Starvation Cap Reductn	0	0		0	0	0		0			0	0
Spillback Cap Reductn	0	0		0	0	0		0			0	0
Storage Cap Reductn	0	0		0	0	0		0			0	0
Reduced v/c Ratio	0.54	0.30		0.10	0.14	0.20		0.24			0.47	0.09

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 64.7			
Natural Cycle: 80			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.63			
Intersection Signal Delay (s/veh): 17.6		Intersection LOS: B	
Intersection Capacity Utilization 87.5%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 1: Admirals Rd & Esquimalt Rd



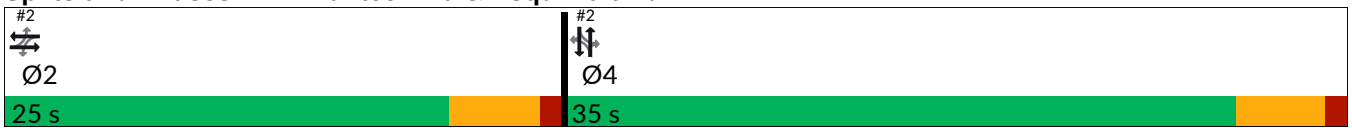


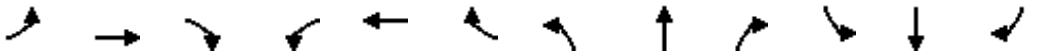
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	256	9	22	57	11	5	4	92	119	17	1
Future Volume (vph)	0	256	9	22	57	11	5	4	92	119	17	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	36.0		0.0	0.0		0.0	0.0		33.0
Storage Lanes	1		0	1		0	0		1	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00		0.99	1.00			0.99	0.98		0.98	0.95
Frt		0.995			0.975				0.850			0.850
Flt Protected				0.950				0.973			0.958	
Satd. Flow (prot)	1921	1821	0	1294	1871	0	0	1869	1633	0	1840	1633
Flt Permitted				0.575				0.805			0.745	
Satd. Flow (perm)	1921	1821	0	774	1871	0	0	1528	1604	0	1409	1557
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3			13				106			36
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		172.9			409.3			123.5			102.9	
Travel Time (s)		15.6			36.8			11.1			9.3	
Confl. Peds. (#/hr)	4		13	13		4	18		12	12		18
Confl. Bikes (#/hr)			19									6
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	5%	0%	41%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	294	10	25	66	13	6	5	106	137	20	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	25	79	0	0	11	106	0	157	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2			4		4	4		4
Detector Phase	2	2		2	2		4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	25.0	25.0		25.0	25.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%		58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	20.0	20.0		20.0	20.0		30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0		5.0	5.0			5.0	5.0		5.0	5.0
Lead/Lag												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	1.0	1.0	1.0	1.0	1.0
Recall Mode	Min	Min		Min	Min		None	None	None	None	None	None
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Don't Walk (s)	15.0	15.0		15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0
Pedestrian Calls (#/hr)	17	17		17	17		30	30	30	30	30	30
Act Effct Green (s)		15.3		15.3	15.3			9.4	9.4		9.4	9.4
Actuated g/C Ratio		0.49		0.49	0.49			0.30	0.30		0.30	0.30
v/c Ratio		0.34		0.07	0.09			0.02	0.19		0.37	0.00
Control Delay (s/veh)		9.3		8.4	6.9			8.5	3.5		11.8	0.0
Queue Delay		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Delay (s/veh)		9.3		8.4	6.9			8.5	3.5		11.8	0.0
LOS		A		A	A			A	A		B	A
Approach Delay (s/veh)		9.3			7.3			4.0			11.8	
Approach LOS		A			A			A			B	
Queue Length 50th (m)		8.7		0.8	1.6			0.3	0.0		4.7	0.0
Queue Length 95th (m)		33.7		6.3	9.1			2.6	6.1		18.5	0.0
Internal Link Dist (m)		148.9			385.3			99.5			78.9	
Turn Bay Length (m)				36.0								33.0
Base Capacity (vph)		1410		599	1451			1406	1484		1296	1435
Starvation Cap Reductn		0		0	0			0	0		0	0
Spillback Cap Reductn		0		0	0			0	0		0	0
Storage Cap Reductn		0		0	0			0	0		0	0
Reduced v/c Ratio		0.22		0.04	0.05			0.01	0.07		0.12	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 31.5			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay (s/veh): 8.6		Intersection LOS: A	
Intersection Capacity Utilization 49.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Canteen Rd & Esquimalt Rd





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	548	1	8	164	16	0	1	8	17	0	2
Future Volume (vph)	1	548	1	8	164	16	0	1	8	17	0	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00			1.00			0.99	
Frt					0.989			0.878			0.986	
Flt Protected					0.998						0.957	
Satd. Flow (prot)	0	1865	0	0	1752	0	0	1682	0	0	1807	0
Flt Permitted					0.978						0.864	
Satd. Flow (perm)	0	1865	0	0	1717	0	0	1682	0	0	1627	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					7			9			94	
Link Speed (k/h)		40			40			30			30	
Link Distance (m)		409.3			153.5			168.5			111.9	
Travel Time (s)		36.8			13.8			20.2			13.4	
Confl. Peds. (#/hr)	13					13	19		2	2		19
Confl. Bikes (#/hr)			25			4						
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	3%	0%	0%	9%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	1	589	1	9	176	17	0	1	9	18	0	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	591	0	0	202	0	0	10	0	0	20	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA			NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Detector Phase	6	6		2	2		4	4		8	8	
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Minimum Split (s)	23.0	23.0		23.0	23.0		30.0	30.0		30.0	30.0	
Total Split (s)	30.0	30.0		30.0	30.0		30.0	30.0		30.0	30.0	
Total Split (%)	42.9%	42.9%		42.9%	42.9%		42.9%	42.9%		42.9%	42.9%	
Maximum Green (s)	25.0	25.0		25.0	25.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	Max	Max		Max	Max		None	None		None	None	

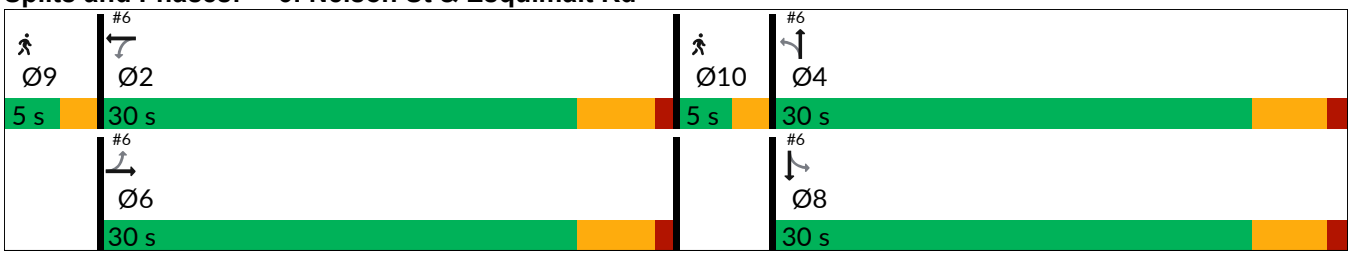
Lane Group	Ø9	Ø10
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Lane Util. Factor		
Ped Bike Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (k/h)		
Link Distance (m)		
Travel Time (s)		
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Enter Blocked Intersection		
Lane Alignment		
Median Width(m)		
Link Offset(m)		
Crosswalk Width(m)		
Two way Left Turn Lane		
Headway Factor		
Turning Speed (k/h)		
Turn Type		
Protected Phases	9	10
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	3.0	3.0
Minimum Split (s)	5.0	5.0
Total Split (s)	5.0	5.0
Total Split (%)	7%	7%
Maximum Green (s)	3.0	3.0
Yellow Time (s)	2.0	2.0
All-Red Time (s)	0.0	0.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		
Lead-Lag Optimize?		
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Walk Time (s)	7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0	
Flash Don't Walk (s)	10.0	10.0		11.0	11.0		14.0	14.0		14.0	14.0	
Pedestrian Calls (#/hr)	0	0		13	13		2	2		19	19	
Act Effct Green (s)		43.1			43.1			9.3			9.3	
Actuated g/C Ratio		0.82			0.82			0.18			0.18	
v/c Ratio		0.39			0.14			0.03			0.05	
Control Delay (s/veh)		8.0			6.0			12.0			0.3	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay (s/veh)		8.0			6.0			12.0			0.3	
LOS		A			A			B			A	
Approach Delay (s/veh)		8.0			6.0			12.0			0.3	
Approach LOS		A			A			B			A	
Queue Length 50th (m)		0.0			0.0			0.1			0.0	
Queue Length 95th (m)		#107.4			32.0			3.1			0.0	
Internal Link Dist (m)		385.3			129.5			144.5			87.9	
Turn Bay Length (m)												
Base Capacity (vph)		1535			1415			832			848	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.39			0.14			0.01			0.02	

Intersection Summary			
Area Type:	Other		
Cycle Length: 70			
Actuated Cycle Length: 52.4			
Natural Cycle: 70			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.39			
Intersection Signal Delay (s/veh): 7.4		Intersection LOS: A	
Intersection Capacity Utilization 50.0%		ICU Level of Service A	
Analysis Period (min) 15			

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

Splits and Phases: 6: Nelson St & Esquimalt Rd



Lane Group	Ø9	Ø10
Walk Time (s)	3.0	3.0
Flash Don't Walk (s)	0.0	0.0
Pedestrian Calls (#/hr)	13	21
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay (s/veh)		
Queue Delay		
Total Delay (s/veh)		
LOS		
Approach Delay (s/veh)		
Approach LOS		
Queue Length 50th (m)		
Queue Length 95th (m)		
Internal Link Dist (m)		
Turn Bay Length (m)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.1	0.0	2.7	0.6	2.8		0.2	0.2	1.1	1.2	2.8
Total Del/Veh (s)	16.8	11.9	7.8	22.5	22.2	10.0		21.1	15.4	15.6	13.6	8.1
Stop/Veh	0.83	0.49	0.57	0.85	0.72	0.79		0.72	0.79	0.67	0.54	0.57
Travel Time (hr)	0.7	0.8	0.0	0.2	4.5	1.4	0.0	1.3	0.1	2.0	1.0	5.3
Vehicles Entered	77	113	7	13	306	115	0	112	14	145	78	437
Vehicles Exited	77	113	7	13	305	115	0	112	14	145	79	438
Hourly Exit Rate	77	113	7	13	305	115	0	112	14	145	79	438
Input Volume	76	113	8	13	294	111	1	123	12	138	86	430
% of Volume	102	100	85	98	104	103	0	91	114	105	92	102

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	1.5
Total Del/Veh (s)	14.4
Stop/Veh	0.65
Travel Time (hr)	17.4
Vehicles Entered	1417
Vehicles Exited	1418
Hourly Exit Rate	1418
Input Volume	1405
% of Volume	101

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	4.4
Total Del/Veh (s)	12.9	5.8	3.5	9.0	7.6	7.1	8.8	6.9	3.2	7.4	7.8	3.1
Stop/Veh	0.75	0.33	0.57	0.45	0.35	0.48	0.67	0.67	0.64	0.64	0.60	0.75
Travel Time (hr)	0.1	0.2	0.0	2.3	4.5	2.1	0.1	0.1	0.1	0.1	0.0	0.0
Vehicles Entered	12	27	7	177	386	163	12	12	14	11	10	4
Vehicles Exited	12	27	7	176	385	163	12	12	14	11	10	4
Hourly Exit Rate	12	27	7	176	385	163	12	12	14	11	10	4
Input Volume	13	28	11	179	373	153	13	15	12	11	11	2
% of Volume	92	96	65	98	103	106	92	80	117	102	93	200

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	0.0
Total Del/Veh (s)	7.7
Stop/Veh	0.43
Travel Time (hr)	9.4
Vehicles Entered	835
Vehicles Exited	833
Hourly Exit Rate	833
Input Volume	820
% of Volume	102

6: Nelson St & Esquimalt Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Total Del/Veh (s)	0.5	0.4	1.3	1.2	1.2	3.0	11.2	18.7	1.4
Stop/Veh	0.01	0.00	0.00	0.02	0.00	1.00	1.00	1.00	0.05
Travel Time (hr)	1.0	0.0	0.0	3.3	0.0	0.0	0.2	0.0	4.6
Vehicles Entered	141	6	1	741	7	7	23	1	927
Vehicles Exited	141	6	1	741	7	7	23	1	927
Hourly Exit Rate	141	6	1	741	7	7	23	1	927
Input Volume	142	5	2	721	8	5	23	1	908
% of Volume	99	114	50	103	85	133	100	100	102

Total Network Performance

Denied Del/Veh (s)	1.4
Total Del/Veh (s)	19.5
Stop/Veh	0.88
Travel Time (hr)	39.4
Vehicles Entered	1493
Vehicles Exited	1491
Hourly Exit Rate	1491
Input Volume	4537
% of Volume	33

Intersection: 1: Admirals Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	TR	LTR	LT	R
Maximum Queue (m)	29.0	34.4	23.6	91.3	32.6	42.6	67.2	42.6
Average Queue (m)	11.5	13.6	3.5	39.1	19.3	18.1	26.6	27.7
95th Queue (m)	22.9	27.1	14.3	71.0	36.8	33.6	52.6	45.0
Link Distance (m)	134.7	134.7		327.4		170.5	339.0	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			20.0		25.0			35.0
Storage Blk Time (%)			0	25	2		1	3
Queuing Penalty (veh)			0	68	3		6	6

Intersection: 2: Canteen Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	LT	R	LT	R
Maximum Queue (m)	22.4	13.2	50.5	51.5	12.5	13.4	13.2	6.8
Average Queue (m)	4.5	1.6	22.6	23.8	3.9	2.3	3.1	0.6
95th Queue (m)	14.7	7.5	43.5	43.6	11.5	8.7	10.3	3.8
Link Distance (m)	161.6	161.6	386.2	386.2	110.5	110.5	88.8	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)								33.0
Storage Blk Time (%)								
Queuing Penalty (veh)								

Intersection: 6: Nelson St & Esquimalt Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (m)	6.9	6.4	18.7	17.0	9.2	14.3
Average Queue (m)	0.2	0.3	1.4	2.4	1.9	6.1
95th Queue (m)	2.6	3.5	8.8	11.1	7.8	13.7
Link Distance (m)	386.2	386.2	134.7	134.7	156.3	99.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 83

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.7	0.1	0.2	2.5	0.6	2.8	0.1	0.2	0.2	1.2	1.2	2.9
Total Del/Veh (s)	18.0	12.3	6.5	22.8	23.4	8.4	42.0	21.2	15.1	16.5	15.0	10.7
Stop/Veh	0.88	0.49	0.50	0.92	0.71	0.84	1.00	0.73	0.85	0.70	0.55	0.60
Travel Time (hr)	0.7	0.7	0.1	0.2	4.5	1.4	0.0	1.5	0.1	1.9	1.2	5.6
Vehicles Entered	79	103	10	12	301	114	1	124	12	136	94	425
Vehicles Exited	79	104	10	11	301	114	1	124	12	137	94	425
Hourly Exit Rate	79	104	10	11	301	114	1	124	12	137	94	425
Input Volume	76	113	8	13	294	111	1	123	12	138	86	430
% of Volume	104	92	121	83	102	102	100	101	98	99	110	99

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	1.5
Total Del/Veh (s)	15.7
Stop/Veh	0.67
Travel Time (hr)	17.9
Vehicles Entered	1411
Vehicles Exited	1412
Hourly Exit Rate	1412
Input Volume	1405
% of Volume	100

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.2	0.2	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	3.9
Total Del/Veh (s)	23.7	6.3	2.2	15.0	13.0	12.0	9.4	7.7	4.5	7.6	9.1	5.1
Stop/Veh	0.75	0.39	0.40	0.65	0.47	0.56	0.75	0.65	0.78	0.73	0.70	0.67
Travel Time (hr)	0.1	0.2	0.1	2.6	4.9	2.3	0.1	0.1	0.0	0.1	0.0	0.0
Vehicles Entered	11	28	10	177	369	161	12	17	9	11	10	3
Vehicles Exited	12	28	10	178	369	162	12	17	9	11	10	3
Hourly Exit Rate	12	28	10	178	369	162	12	17	9	11	10	3
Input Volume	13	28	11	179	373	153	13	15	12	11	11	2
% of Volume	92	100	93	99	99	106	92	113	75	102	93	150

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	12.6
Stop/Veh	0.55
Travel Time (hr)	10.5
Vehicles Entered	818
Vehicles Exited	821
Hourly Exit Rate	821
Input Volume	820
% of Volume	100

6: Nelson St & Esquimalt Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBR	SBL	SBT	All
Denied Del/Veh (s)	0.2	0.2	0.0	0.1	0.0	0.1	0.1	0.1	0.1
Total Del/Veh (s)	3.6	2.5	10.9	6.5	4.7	2.1	5.8	5.4	6.0
Stop/Veh	0.20	0.20	0.67	0.25	0.29	0.80	0.73	0.00	0.26
Travel Time (hr)	1.1	0.0	0.0	4.3	0.0	0.0	0.1	0.0	5.7
Vehicles Entered	138	5	3	723	7	5	21	1	903
Vehicles Exited	139	5	3	721	7	5	21	1	902
Hourly Exit Rate	139	5	3	721	7	5	21	1	902
Input Volume	142	5	2	721	8	5	23	1	908
% of Volume	98	95	150	100	85	95	91	100	99

Total Network Performance

Denied Del/Veh (s)	1.6
Total Del/Veh (s)	26.2
Stop/Veh	1.08
Travel Time (hr)	42.1
Vehicles Entered	1492
Vehicles Exited	1493
Hourly Exit Rate	1493
Input Volume	4537
% of Volume	33

Intersection: 1: Admirals Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	LT	R
Maximum Queue (m)	31.9	39.7	23.5	85.2	32.6	42.6	76.9	42.1
Average Queue (m)	12.4	12.9	2.9	43.8	17.5	19.4	29.2	30.8
95th Queue (m)	23.4	27.3	12.6	73.4	35.4	35.6	60.6	48.7
Link Distance (m)		132.0		327.4		170.7	338.7	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	26.0		20.0		25.0			35.0
Storage Blk Time (%)	1	1	0	31	0		2	4
Queuing Penalty (veh)	1	1	0	38	0		10	10

Intersection: 2: Canteen Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	L	TR	LT	R	LT	R
Maximum Queue (m)	13.2	20.0	43.4	106.3	15.1	14.2	16.3	8.8
Average Queue (m)	2.4	4.4	21.9	39.0	4.9	2.2	3.8	0.5
95th Queue (m)	9.1	14.5	44.6	80.5	13.1	9.6	11.8	3.9
Link Distance (m)		161.2		388.3	112.4	112.4	91.2	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	80.0		36.0					33.0
Storage Blk Time (%)			1	7				
Queuing Penalty (veh)			4	12				

Intersection: 6: Nelson St & Esquimalt Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	37.7	98.4	9.2	15.5
Average Queue (m)	7.9	35.8	1.2	3.8
95th Queue (m)	24.0	79.4	6.2	11.5
Link Distance (m)	388.3	132.0	158.1	101.0
Upstream Blk Time (%)		0		
Queuing Penalty (veh)		0		
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 77

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.0	0.0	0.0	3.2	0.7	2.9	0.2	0.2	0.2	0.5	0.5	3.0
Total Del/Veh (s)	21.9	17.6	14.1	29.9	25.9	10.9	25.5	27.7	18.4	23.6	22.2	7.5
Stop/Veh	0.82	0.58	0.67	0.91	0.71	0.91	0.75	0.80	0.82	0.86	0.71	0.72
Travel Time (hr)	2.6	2.6	0.1	0.8	1.6	1.7	0.2	2.0	0.4	3.4	1.9	1.0
Vehicles Entered	253	292	15	43	102	132	11	145	32	216	126	83
Vehicles Exited	254	290	15	42	102	133	12	145	32	217	128	84
Hourly Exit Rate	254	290	15	42	102	133	12	145	32	217	128	84
Input Volume	263	300	13	41	101	128	11	142	31	216	129	82
% of Volume	97	97	113	103	101	104	109	102	102	100	99	102

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	20.5
Stop/Veh	0.76
Travel Time (hr)	18.1
Vehicles Entered	1450
Vehicles Exited	1454
Hourly Exit Rate	1454
Input Volume	1457
% of Volume	100

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	4.2	0.1
Total Del/Veh (s)	6.4	2.2	8.9	2.7	2.9	7.1	3.4	3.7	7.7	7.3	2.6	5.5
Stop/Veh	0.48	0.38	0.65	0.20	0.45	0.60	0.33	0.64	0.62	0.67	1.00	0.48
Travel Time (hr)	1.5	0.0	0.3	1.1	0.1	0.0	0.0	0.4	0.5	0.1	0.0	4.1
Vehicles Entered	250	8	23	136	11	5	3	89	111	18	1	655
Vehicles Exited	251	8	23	135	11	5	3	90	111	18	1	656
Hourly Exit Rate	251	8	23	135	11	5	3	90	111	18	1	656
Input Volume	256	9	22	133	11	5	4	92	119	17	1	669
% of Volume	98	86	105	101	102	95	71	98	93	106	100	98

6: Nelson St & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.1	0.0	0.0	0.0	0.0		0.1	0.1	0.1	0.1
Total Del/Veh (s)	1.1	1.3	1.9	4.3	1.2	1.2		3.9	7.3	2.2	1.5
Stop/Veh	0.00	0.02	0.00	0.44	0.02	0.00		1.00	1.00	1.00	0.06
Travel Time (hr)	0.0	5.3	0.0	0.0	0.8	0.1	0.0	0.1	0.1	0.0	6.4
Vehicles Entered	1	533	1	9	176	16	0	9	16	3	764
Vehicles Exited	1	532	1	8	176	15	0	9	16	3	761
Hourly Exit Rate	1	532	1	8	176	15	0	9	16	3	761
Input Volume	1	548	1	8	172	16	1	8	17	2	775
% of Volume	100	97	100	97	102	92	0	109	93	150	98

Total Network Performance

Denied Del/Veh (s)	0.8
Total Del/Veh (s)	24.3
Stop/Veh	0.97
Travel Time (hr)	39.2
Vehicles Entered	1492
Vehicles Exited	1498
Hourly Exit Rate	1498
Input Volume	4313
% of Volume	35

Intersection: 1: Admirals Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	TR	LTR	LT	R
Maximum Queue (m)	68.1	71.7	27.2	62.0	32.5	58.4	91.3	42.6
Average Queue (m)	32.9	34.5	9.3	17.2	17.1	28.5	43.9	16.1
95th Queue (m)	55.2	61.2	22.2	39.2	31.0	48.7	72.2	41.4
Link Distance (m)	134.7	134.7		327.4		170.5	339.0	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			20.0		25.0			35.0
Storage Blk Time (%)			1	8	1		15	0
Queuing Penalty (veh)			3	18	1		13	0

Intersection: 2: Canteen Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	LT	TR	LT	TR	LT	R	LT	R
Maximum Queue (m)	25.1	21.4	20.6	17.2	8.6	17.3	27.2	4.0
Average Queue (m)	13.4	7.7	6.8	4.7	1.3	8.2	11.0	0.1
95th Queue (m)	23.9	17.5	17.0	13.5	6.1	15.6	20.1	1.7
Link Distance (m)	161.6	161.6	386.2	386.2	110.5	110.5	88.8	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)								33.0
Storage Blk Time (%)							0	
Queuing Penalty (veh)							0	

Intersection: 6: Nelson St & Esquimalt Rd

Movement	EB	EB	WB	WB	NB	SB
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (m)	14.0	17.4	10.1	12.6	9.2	13.0
Average Queue (m)	1.3	1.4	1.6	0.9	2.9	4.3
95th Queue (m)	7.6	8.4	7.3	6.3	9.7	12.0
Link Distance (m)	386.2	386.2	134.7	134.7	156.3	99.0
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (m)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Network Summary

Network wide Queuing Penalty: 34

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	0.1	0.0	0.0	2.8	0.5	3.1	0.2	0.2	0.2	0.5	0.5	2.8
Total Del/Veh (s)	26.5	21.3	15.8	31.7	25.8	9.9	27.1	29.7	22.5	26.8	23.6	9.3
Stop/Veh	0.98	0.65	0.69	0.95	0.70	0.90	0.82	0.81	0.91	0.89	0.68	0.74
Travel Time (hr)	2.9	2.9	0.1	0.7	1.7	1.6	0.1	2.1	0.4	3.8	2.0	1.0
Vehicles Entered	255	299	15	40	108	126	11	149	33	230	129	82
Vehicles Exited	256	300	16	41	107	127	11	149	34	229	128	82
Hourly Exit Rate	256	300	16	41	107	127	11	149	34	229	128	82
Input Volume	263	300	13	41	101	128	11	142	31	216	129	82
% of Volume	97	100	121	101	106	99	100	105	109	106	99	100

1: Admirals Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	0.7
Total Del/Veh (s)	23.1
Stop/Veh	0.81
Travel Time (hr)	19.5
Vehicles Entered	1477
Vehicles Exited	1480
Hourly Exit Rate	1480
Input Volume	1457
% of Volume	102

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	3.2	0.2
Total Del/Veh (s)	7.4	5.8	13.3	3.6	3.2	9.4	8.1	4.7	8.6	8.9	3.1	6.6
Stop/Veh	0.48	0.67	0.71	0.21	0.45	0.60	0.67	0.71	0.67	0.67	0.50	0.50
Travel Time (hr)	1.5	0.0	0.3	1.2	0.1	0.0	0.0	0.5	0.6	0.1	0.0	4.4
Vehicles Entered	247	6	21	138	11	5	3	99	118	15	2	665
Vehicles Exited	247	6	21	138	11	5	3	99	119	15	2	666
Hourly Exit Rate	247	6	21	138	11	5	3	99	119	15	2	666
Input Volume	256	9	22	133	11	5	4	92	119	17	1	669
% of Volume	97	65	95	104	102	95	71	108	100	88	200	100

6: Nelson St & Esquimalt Rd Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBR	All
Denied Del/Veh (s)	0.0	0.3	0.0	0.0	0.0	0.0		0.1	0.1	0.1	0.2
Total Del/Veh (s)	11.9	6.9	7.8	9.6	4.6	2.7		2.6	7.6	3.0	6.3
Stop/Veh	1.00	0.26	0.50	0.56	0.21	0.20		0.88	0.80	1.00	0.27
Travel Time (hr)	0.0	6.3	0.0	0.1	0.9	0.1	0.0	0.1	0.1	0.0	7.6
Vehicles Entered	1	541	2	9	179	15	0	8	20	1	776
Vehicles Exited	1	538	2	8	177	15	0	8	19	1	769
Hourly Exit Rate	1	538	2	8	177	15	0	8	19	1	769
Input Volume	1	548	1	8	172	16	1	8	17	2	775
% of Volume	100	98	200	97	103	92	0	97	110	50	99

Total Network Performance

Denied Del/Veh (s)	0.9
Total Del/Veh (s)	29.8
Stop/Veh	1.13
Travel Time (hr)	42.1
Vehicles Entered	1518
Vehicles Exited	1514
Hourly Exit Rate	1514
Input Volume	4313
% of Volume	35

Intersection: 1: Admirals Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	WB	NB	SB	SB
Directions Served	L	TR	L	T	R	LTR	LT	R
Maximum Queue (m)	33.5	116.4	27.3	55.2	32.6	61.6	124.5	42.6
Average Queue (m)	29.7	52.3	10.6	21.3	15.9	30.0	44.2	14.0
95th Queue (m)	39.4	99.6	24.9	44.4	29.9	54.6	89.1	40.8
Link Distance (m)		132.0		327.4		170.7	338.7	
Upstream Blk Time (%)		0						
Queuing Penalty (veh)		0						
Storage Bay Dist (m)	26.0		20.0		25.0			35.0
Storage Blk Time (%)	13	17	1	11	1		15	0
Queuing Penalty (veh)	41	45	3	18	1		12	0

Intersection: 2: Canteen Rd & Esquimalt Rd

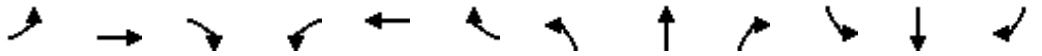
Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	TR	L	TR	LT	R	LT	R
Maximum Queue (m)	40.3	24.9	23.4	8.7	23.2	24.0	6.0
Average Queue (m)	17.7	5.3	6.7	1.5	9.4	12.5	0.4
95th Queue (m)	34.4	18.0	16.5	6.7	17.8	22.2	3.0
Link Distance (m)	161.2		388.3	112.4	112.4	91.2	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)		36.0					33.0
Storage Blk Time (%)		0				0	
Queuing Penalty (veh)		0				0	

Intersection: 6: Nelson St & Esquimalt Rd

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	80.1	45.2	9.2	14.2
Average Queue (m)	28.1	10.8	2.2	4.0
95th Queue (m)	63.3	28.7	8.5	11.7
Link Distance (m)	388.3	132.0	158.1	101.0
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Network Summary

Network wide Queuing Penalty: 122



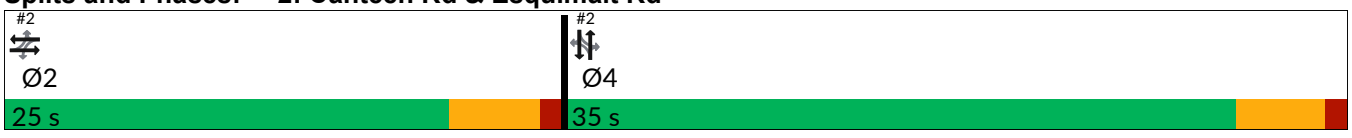
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	13	28	11	179	323	153	13	15	12	11	11	2
Future Volume (vph)	13	28	11	179	323	153	13	15	12	11	11	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	36.0		36.0	0.0		0.0	0.0		33.0
Storage Lanes	1		0	0		1	0		1	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00	0.99			0.99	0.97		0.99	0.94		0.98	0.97
Frt		0.959				0.850			0.850			0.850
Flt Protected	0.950				0.983			0.977			0.976	
Satd. Flow (prot)	1825	1367	0	0	1837	1617	0	1877	1512	0	1794	1633
Flt Permitted	0.353				0.864			0.877			0.873	
Satd. Flow (perm)	676	1367	0	0	1604	1563	0	1660	1417	0	1572	1579
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		13				158			36			36
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		172.9			409.3			123.5			102.9	
Travel Time (s)		15.6			36.8			11.1			9.3	
Confl. Peds. (#/hr)	9		13	13		9	22		29	29		22
Confl. Bikes (#/hr)			1			16			9			
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles (%)	0%	46%	0%	6%	1%	1%	0%	0%	8%	0%	9%	0%
Adj. Flow (vph)	16	34	13	218	394	187	16	18	15	13	13	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	47	0	0	612	187	0	34	15	0	26	2
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2		2	4		4	4		4
Detector Phase	2	2		2	2	2	4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	25.0	25.0		25.0	25.0	25.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%	41.7%	58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	20.0	20.0		20.0	20.0	20.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0	5.0		5.0	5.0
Lead/Lag												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Recall Mode	Min	Min		Min	Min	Min	None	None	None	None	None	None
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Flash Don't Walk (s)	15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Pedestrian Calls (#/hr)	22	22		22	22	22	51	51	51	51	51	51
Act Effct Green (s)	33.2	33.2			33.2	33.2		14.2	14.2		14.2	14.2
Actuated g/C Ratio	0.67	0.67			0.67	0.67		0.29	0.29		0.29	0.29
v/c Ratio	0.04	0.05			0.57	0.17		0.07	0.03		0.06	0.00
Control Delay (s/veh)	9.4	7.4			16.6	3.5		11.3	2.0		11.0	0.0
Queue Delay	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)	9.4	7.4			16.6	3.5		11.3	2.0		11.0	0.0
LOS	A	A			B	A		B	A		B	A
Approach Delay (s/veh)		7.9			13.5			8.4			10.3	
Approach LOS		A			B			A			B	
Queue Length 50th (m)	0.8	2.4			50.7	1.5		2.9	0.0		2.3	0.0
Queue Length 95th (m)	3.3	7.8			#91.0	8.6		5.1	1.2		4.6	0.0
Internal Link Dist (m)		148.9			385.3			99.5			78.9	
Turn Bay Length (m)	80.0					36.0						33.0
Base Capacity (vph)	454	923			1078	1103		1041	902		986	1004
Starvation Cap Reductn	0	0			0	0		0	0		0	0
Spillback Cap Reductn	0	0			0	0		0	0		0	0
Storage Cap Reductn	0	0			0	0		0	0		0	0
Reduced v/c Ratio	0.04	0.05			0.57	0.17		0.03	0.02		0.03	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 49.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.57			
Intersection Signal Delay (s/veh): 12.8		Intersection LOS: B	
Intersection Capacity Utilization 63.4%		ICU Level of Service B	
Analysis Period (min) 15			

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

Splits and Phases: 2: Canteen Rd & Esquimalt Rd



2: Canteen Rd & Esquimalt Rd Performance by movement

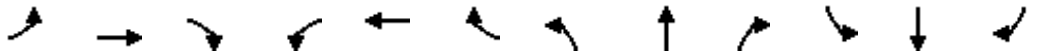
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Del/Veh (s)	4.2	0.2	0.2	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.2	4.4
Total Del/Veh (s)	16.0	5.7	2.9	16.1	14.6	9.7	9.1	6.4	3.3	9.0	9.3	4.5
Stop/Veh	0.77	0.40	0.50	0.60	0.50	0.57	0.69	0.62	0.58	0.80	0.73	0.67
Travel Time (hr)	0.1	0.2	0.1	2.7	5.3	2.1	0.1	0.1	0.1	0.0	0.1	0.0
Vehicles Entered	12	30	14	180	389	155	16	16	12	10	11	3
Vehicles Exited	12	30	14	181	386	154	16	16	12	10	11	3
Hourly Exit Rate	12	30	14	181	386	154	16	16	12	10	11	3
Input Volume	13	28	11	179	373	153	13	15	12	11	11	2
% of Volume	92	107	130	101	103	100	123	107	100	93	102	150

2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	All
Denied Del/Veh (s)	0.1
Total Del/Veh (s)	13.0
Stop/Veh	0.55
Travel Time (hr)	10.8
Vehicles Entered	848
Vehicles Exited	845
Hourly Exit Rate	845
Input Volume	820
% of Volume	103

Intersection: 2: Canteen Rd & Esquimalt Rd

Movement	EB	EB	WB	WB	NB	NB	SB	SB
Directions Served	L	TR	LT	R	LT	R	LT	R
Maximum Queue (m)	14.4	24.9	124.4	43.6	13.5	14.2	11.8	7.1
Average Queue (m)	2.8	4.7	50.2	18.4	4.9	1.9	3.6	0.5
95th Queue (m)	9.8	16.0	101.1	46.0	12.7	8.6	10.3	3.9
Link Distance (m)		161.2	388.3		112.4	112.4	87.5	
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)	80.0			36.0				33.0
Storage Blk Time (%)			12	0				
Queuing Penalty (veh)			19	1				

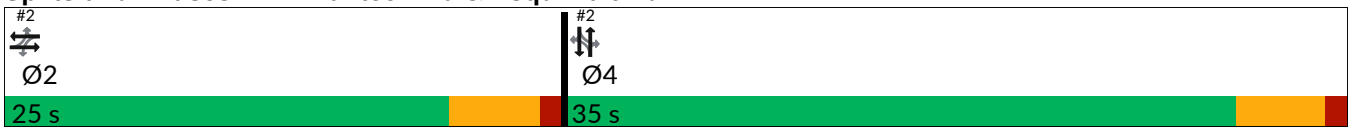


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	256	9	22	57	11	5	4	92	119	17	1
Future Volume (vph)	0	256	9	22	57	11	5	4	92	119	17	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	80.0		0.0	36.0		36.0	0.0		0.0	0.0		33.0
Storage Lanes	1		0	0		1	0		1	0		1
Taper Length (m)	7.6		7.6	7.6		7.6	7.6		7.6	7.6		7.6
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			1.00	0.99		0.99	0.98		0.98	0.95
Frt		0.995				0.850			0.850			0.850
Flt Protected					0.986			0.973			0.958	
Satd. Flow (prot)	1921	1821	0	0	1702	1633	0	1869	1633	0	1840	1633
Flt Permitted					0.875			0.805			0.745	
Satd. Flow (perm)	1921	1821	0	0	1506	1623	0	1528	1604	0	1409	1557
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		3				36			106			36
Link Speed (k/h)		40			40			40			40	
Link Distance (m)		172.9			409.3			123.5			102.9	
Travel Time (s)		15.6			36.8			11.1			9.3	
Confl. Peds. (#/hr)	4		13	13		4	18		12	12		18
Confl. Bikes (#/hr)			19									6
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	5%	0%	41%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	294	10	25	66	13	6	5	106	137	20	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	304	0	0	91	13	0	11	106	0	157	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.7			3.7			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		2			2			4			4	
Permitted Phases	2			2		2	4		4	4		4
Detector Phase	2	2		2	2	2	4	4	4	4	4	4
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0	8.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	25.0	25.0		25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Total Split (s)	25.0	25.0		25.0	25.0	25.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	41.7%	41.7%		41.7%	41.7%	41.7%	58.3%	58.3%	58.3%	58.3%	58.3%	58.3%
Maximum Green (s)	20.0	20.0		20.0	20.0	20.0	30.0	30.0	30.0	30.0	30.0	30.0
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	5.0	5.0			5.0	5.0		5.0	5.0		5.0	5.0
Lead/Lag												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lead-Lag Optimize?												
Vehicle Extension (s)	2.0	2.0		2.0	2.0	2.0	1.0	1.0	1.0	1.0	1.0	1.0
Recall Mode	Min	Min		Min	Min	Min	None	None	None	None	None	None
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Flash Don't Walk (s)	15.0	15.0		15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0	15.0
Pedestrian Calls (#/hr)	17	17		17	17	17	30	30	30	30	30	30
Act Effct Green (s)		15.3			15.3	15.3		9.4	9.4		9.4	9.4
Actuated g/C Ratio		0.49			0.49	0.49		0.30	0.30		0.30	0.30
v/c Ratio		0.34			0.12	0.02		0.02	0.19		0.37	0.00
Control Delay (s/veh)		9.3			8.2	1.5		8.5	3.5		11.8	0.0
Queue Delay		0.0			0.0	0.0		0.0	0.0		0.0	0.0
Total Delay (s/veh)		9.3			8.2	1.5		8.5	3.5		11.8	0.0
LOS		A			A	A		A	A		B	A
Approach Delay (s/veh)		9.3			7.4			4.0			11.8	
Approach LOS		A			A			A			B	
Queue Length 50th (m)		8.7			2.3	0.0		0.3	0.0		4.7	0.0
Queue Length 95th (m)		33.7			11.4	1.0		2.6	6.1		18.5	0.0
Internal Link Dist (m)		148.9			385.3			99.5			78.9	
Turn Bay Length (m)						36.0						33.0
Base Capacity (vph)		1410			1165	1264		1406	1484		1296	1435
Starvation Cap Reductn		0			0	0		0	0		0	0
Spillback Cap Reductn		0			0	0		0	0		0	0
Storage Cap Reductn		0			0	0		0	0		0	0
Reduced v/c Ratio		0.22			0.08	0.01		0.01	0.07		0.12	0.00

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 31.5			
Natural Cycle: 50			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay (s/veh): 8.7		Intersection LOS: A	
Intersection Capacity Utilization 49.2%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 2: Canteen Rd & Esquimalt Rd



2: Canteen Rd & Esquimalt Rd Performance by movement

Movement	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Del/Veh (s)	0.3	0.3	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	4.8	0.2
Total Del/Veh (s)	7.7	4.1	10.8	4.2	3.5	5.9	4.8	5.1	8.3	7.2	3.5	6.7
Stop/Veh	0.50	0.57	0.68	0.23	0.42	0.60	0.60	0.72	0.65	0.59	1.00	0.51
Travel Time (hr)	1.6	0.0	0.3	1.2	0.1	0.0	0.0	0.4	0.6	0.1	0.0	4.4
Vehicles Entered	243	7	21	134	12	5	5	92	118	17	1	655
Vehicles Exited	245	7	21	134	12	5	5	92	118	17	1	657
Hourly Exit Rate	245	7	21	134	12	5	5	92	118	17	1	657
Input Volume	256	9	22	133	11	5	4	92	119	17	1	669
% of Volume	96	76	95	101	112	95	118	100	99	100	100	98

Intersection: 2: Canteen Rd & Esquimalt Rd

Movement	EB	WB	WB	NB	NB	SB	SB
Directions Served	TR	LT	R	LT	R	LT	R
Maximum Queue (m)	47.1	25.6	7.8	11.1	19.8	24.9	4.0
Average Queue (m)	18.6	9.8	1.3	1.7	9.6	12.1	0.2
95th Queue (m)	35.2	21.2	6.1	7.7	18.0	22.0	2.4
Link Distance (m)	161.2	388.3		112.4	112.4	87.5	
Upstream Blk Time (%)							
Queuing Penalty (veh)							
Storage Bay Dist (m)			36.0				33.0
Storage Blk Time (%)						0	
Queuing Penalty (veh)						0	