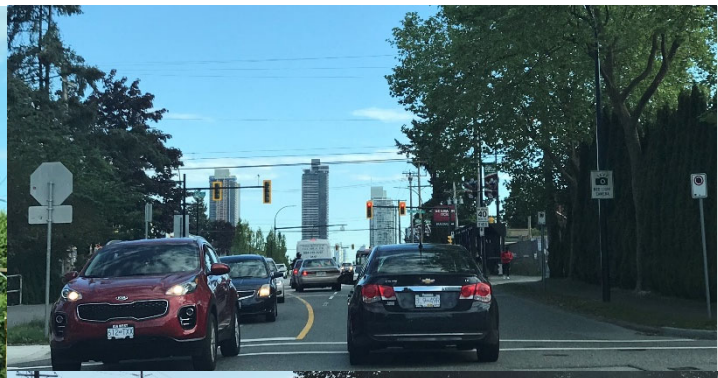
McElhanney

BEST MANAGED COMPANIES CANADA



Traffic Management Study for Parkland Burnaby Refinery

June 19, 2020

Submitted to: Gord Bruce, PEng, Parkland Refining (B.C.) Ltd.
Maintenance and Reliability

Prepared by:
Parm Nahal, PEng
Project Manager
604-424-4882
pnahal@mcelhanney.com

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. S. NAHAL
35934
2020-06-19

Address
Suite 2300 Central City Tower, 13450 – 102nd Avenue, Surrey BC Canada V3T 5X3

Reviewed by:
Denny Leung, PEng
Division Manager
604-424-4860
dleung@mcelhanney.com

Our file: 2111-05469-00

Your Challenge.
Our Passion.

Contents

Figures

Tables

Appendices

1. Introduction

The purpose of this technical report is to review traffic operations generally within the Capitol Hill neighbourhood in Burnaby, British Columbia from Willingdon Avenue to Gamma Avenue, and from Penzance Drive to East Hastings Street. Additionally, this report will assess the impacts Parkland Refining (B.C) Ltd. (Parkland) is having on traffic operations within Capitol Hill. This study evaluates the AM and PM weekday peak hour conditions in years 2019 (existing conditions) and 2024 (5-year horizon year).

1.1. PROJECT DESCRIPTION

Parkland is located at 5201 Penzance Drive in Burnaby, British Columbia, which is the main location of interest and is also known as Refinery Area 2. The other secondary location, known as Refinery Area 1 is located on 355 Willingdon Avenue. The primary focus of this study is Refinery Area 2 on Penzance Drive. With a rise in traffic volumes on the surrounding road network accompanied by increased refinery traffic, the roads in the area are experiencing congestion and delays frustrating the residents in the neighbourhood.

To develop mitigations for existing and potential future challenges, traffic conditions were reviewed at the ten (10) study intersections presented in *Table 1* (on page 3). In addition, origin-destination traffic patterns to and from the Parkland Burnaby Refinery were reviewed to determine if employees from Parkland Burnaby Refinery are short-cutting through the Capitol Hill neighbourhood to bypass existing congested intersections.

An overview of the project location and study intersections are shown in *Figure 1*.

Parkland Burnaby Refinery - Traffic Management Study

Study Area and Study Intersections

FIGURE 1

Not to Scale

McElhanney
2111-05469-00

Table 1: Study Intersections

Study Intersections	Control Type
Eton Street / North Rosser Avenue	Side-Street Stop-Controlled
Penzance Drive / Willingdon Avenue	Side-Street Stop-Controlled
Albert Street / Willingdon Avenue	All-Way Stop-Controlled
East Hastings Street / Willingdon Avenue	Signalized
Penzance Drive / North Beta Avenue	Side-Street Stop-Controlled
Penzance Drive / North Gamma Avenue	Side-Street Stop-Controlled
Cambridge Street / North Gamma Avenue / Empire Drive	All-Way Stop-Controlled
Albert Street / North Gamma Avenue	All-Way Stop-Controlled
East Hastings Street / North Gamma Avenue	Signalized
East Hastings Street / Holdom Avenue	Signalized

1.2. PRE-PROPOSAL MEETING, SITE VISIT, AND KICK-OFF MEETING

A pre-proposal meeting with Parkland occurred on May 14, 2019 to confirm project scope, issues, constraints, and expectations. A separate site visit was conducted during PM peak traffic hours on May 22, 2019. A project kick-off meeting was also conducted on July 29, 2019 to go over the City's issues and concerns. The following summarizes the key operational issues identified during these events:

- Local residents have expressed frustration regarding illegal left turns made by Parkland staff from westbound Penzance Drive to North Gamma Avenue and North Beta Avenue. In an attempt to minimize the impact of Parkland traffic on these residential streets, westbound left-turning traffic from Penzance Drive onto North Gamma Avenue and North Beta Avenue has been restricted from 5:00 AM to 7:00 AM and 5:00 PM to 7:00 PM. To further enforce this restriction, Parkland has temporarily deployed traffic control personnel during high-volume periods to direct westbound traffic to stay on Penzance Drive and pass through these intersections. The Parkland management is also educating all staff not to make illegal left turns from Penzance Drive onto North Gamma Avenue and North Beta Avenue.

- When PM peak hour (5:00 PM – 6:00 PM) Parkland shift changes occur, westbound traffic backs up from Willingdon Avenue and the queue along Penzance Drive extends beyond the Confederation Park's north parking lot access. To avoid this congestion, some drivers have been observed using the Confederation Park Parking Lot to make the U-turns to access North Beta Avenue and North Gamma Avenue.

- Congestion from commuting traffic regularly occurs in the eastbound direction on East Hastings Street during the PM peak hour. To avoid congestion on East Hastings Street, some regular commuters often travel through the Burnaby Heights and Capitol Hill neighbourhoods.

- Congestion at the signalized intersection of East Hastings Street and Willingdon Avenue also creates southbound traffic queuing along Willingdon Avenue and often extends beyond the Willingdon Avenue / Albert Street four-way stop controlled intersection, which is only 100 m away. This situation leads to increased congestion at the Willingdon Avenue / Albert Street intersection causing it to operate at or above capacity during peak hour conditions. This four-way stop controlled intersection was recently reconstructed to include curb bulb-outs. Large trucks are slow to accelerate at a stop-and-go condition creating further queuing of traffic from Albert Street.

2. Traffic Volume Development

2.1. EXISTING 2019 TRAFFIC VOLUMES

Weekday AM and PM peak hour traffic volumes were collected by McElhanney Ltd. (McElhanney) on October 8th, 10th, and 16th, 2019 for the ten (10) study intersections shown in *Table 1*. Peak hours were recorded on a weekday from 6:00 AM to 9:00 AM and 4:00 PM to 7:00 PM. Peak hour factors and heavy truck percentages were established by finding the hour with the highest volume for each study intersection.

The existing 2019 weekday AM and PM peak hour traffic volumes at the study intersections are presented in *Figure 2*. Detailed traffic count sheets can be found in *Appendix A.*

Parkland Burnaby Refinery – Traffic Management Study

2019 Weekday AM and PM Peak Hour Traffic Volumes

FIGURE 2

Not to Scale

McElhanney
2111-05469-00

2.2. FUTURE TRAFFIC VOLUMES

To develop 2024 (5-year horizon year) background volumes, McElhanney applied a 0.5% annually compounding growth rate to all movements of the study intersections. This growth rate was agreed upon during a July 29, 2019 meeting between the City of Burnaby and McElhanney as the Capitol Hill neighbourhood is not expected to experience substantial growth in the next five years.

The 2024 (5-year horizon year) weekday AM and PM peak hour background volumes are presented in *Figure 3*.

Parkland Burnaby Refinery – Traffic Management Study

2024 (5-Year Horizon Year) Weekday AM and PM Peak Hour Background Volumes

McElhanney
2111-05469-00

FIGURE 3

Not to Scale

2.3. TRIP GENERATION

Trip generation refers to the process of estimating the amount of vehicular traffic a development would add to the surrounding roadway system. In the next five years, Parkland is expected to undergo maintenance (i.e. a turnaround period). During this turnaround period additional contractors and staff are expected to be working at the refinery. The expected additional trips generated by Parkland during the turnaround period is shown in *Table 2*.

Table 2: Estimated Trip Generation

Time Period	Turnaround Trips			Duration	Hourly Additional Traffic			
	Existing Trips	New Trips	Total		Total	Refinery Area 1	Refinery Area 2	N Gamma Parking
Shift Ending Time (5:00 PM)	650	150	800	30 minutes	300	25	175	100

During the turnaround period, 800 vehicles are expected to exit the facility. Existing staff levels as provided by Parkland are 250 staff and 400 contractors. Therefore, 150 additional trips will be generated during this period.

Under the assumption vehicles will take 30 minutes to exit the facility when the day shift ends, the turnaround will generate an additional 300 vehicles per hour (150 new trips per 30 minutes * 2 = 300 vehicles per hour) during the PM peak hour.

Of the additional 300 trips, 25 vehicles are assumed to originate from Refinery Area 1, 175 from Refinery Area 2, and 100 from the North Gamma Avenue parking lot.

2.4. TRIP DISTRIBUTION

The trip distribution for traffic generated by Parkland was estimated using the StreetLight InSight® platform in conjunction with the traffic counts. This platform is an online solution which estimates origin-destination (O-D) patterns, AADT, and other metrics using records from smart phone applications with location services and navigation devices. The approximate September 2019 O-D pattern from 5:00 PM to 6:00 PM is presented in *Figure 4* and *Figure 5*.

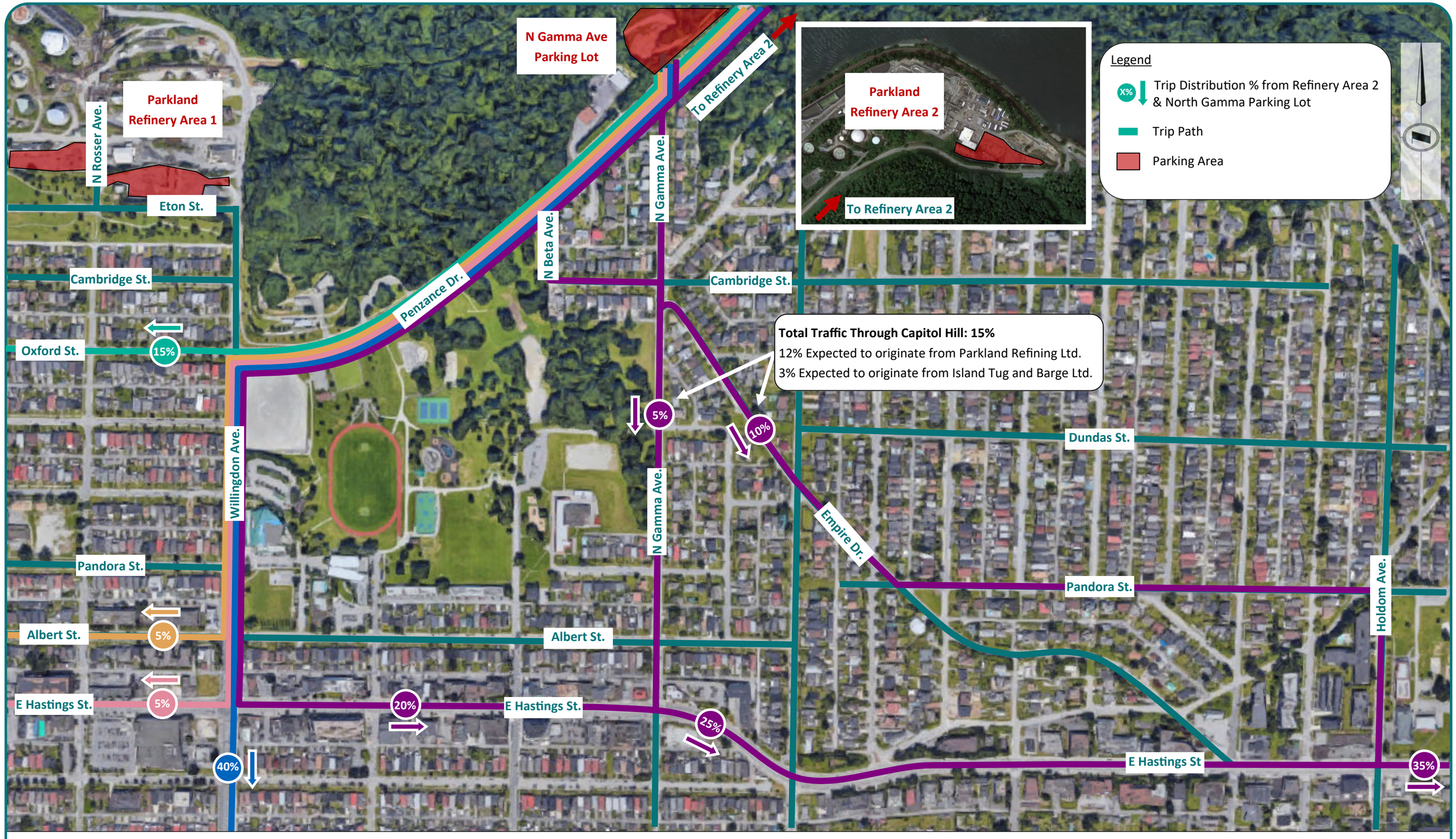
McElhanney
2111-05469-00

Parkland Burnaby Refinery - Traffic Management Study

Trip Distribution - From Refinery Area 1 , PM Peak Period

FIGURE 4

Not to Scale



Parkland Burnaby Refinery - Traffic Management Study

Trip Distribution - From Refinery Area 2 & North Gamma Parking Lot, PM Peak Period

FIGURE 5

Not to Scale

McElhanney
2111-05469-00

In addition to the September 2019 PM O-D patterns, metrics identifying U-turn movements along Penzance Drive, common occurring routes passing through the Capitol Hill neighbourhood, and historical (September 2017) PM O-D patterns were also analyzed.

Historical Origin-Destination Patterns

Parkland has made efforts to reduce the number of employees short-cutting through the Capital Hill neighbourhood over the past year. Efforts to reduce cut-through traffic include:

- Installing median delineator posts and signs to restrict westbound left-turn movements at the Penzance Drive / North Gamma Avenue and Penzance Drive / North Beta Avenue intersections.
- Deploying Parkland staff to act as temporary traffic control personnel along Penzance Drive during high-volume periods and to instruct staff to continue westbound along Penzance Drive and southbound along Willingdon Avenue. It is noted that this is a temporary solution offered by Parkland.
- Educating and advising staff that illegal left turns and cutting through the Capitol Hill neighbourhood is not permitted.

Through these efforts, Parkland traffic through Capitol Hill has been reduced significantly. In September 2017 (when left-turns were still legal), approximately 50% of employees were making a westbound left-turn on Penzance Drive to enter the Capitol Hill neighbourhood. With the implementation of left-turn restrictions, temporary traffic control personnel, and other measures, only about 12% of vehicles are now cutting through the Capitol Hill neighbourhood. Further breakdown reveals that 4% are using North Gamma Avenue to access East Hastings Street and 8% are using Empire Drive to Pandora Street to Holdom Avenue to access East Hastings Street.

It is also noted that Island Tug and Barge Ltd. (a business located east of Parkland Refinery Area 2) contributes approximately 3% of the traffic using Penzance Drive (East of North Gamma Avenue) to cut through the Capitol Hill neighbourhood.

U-Turn Movements

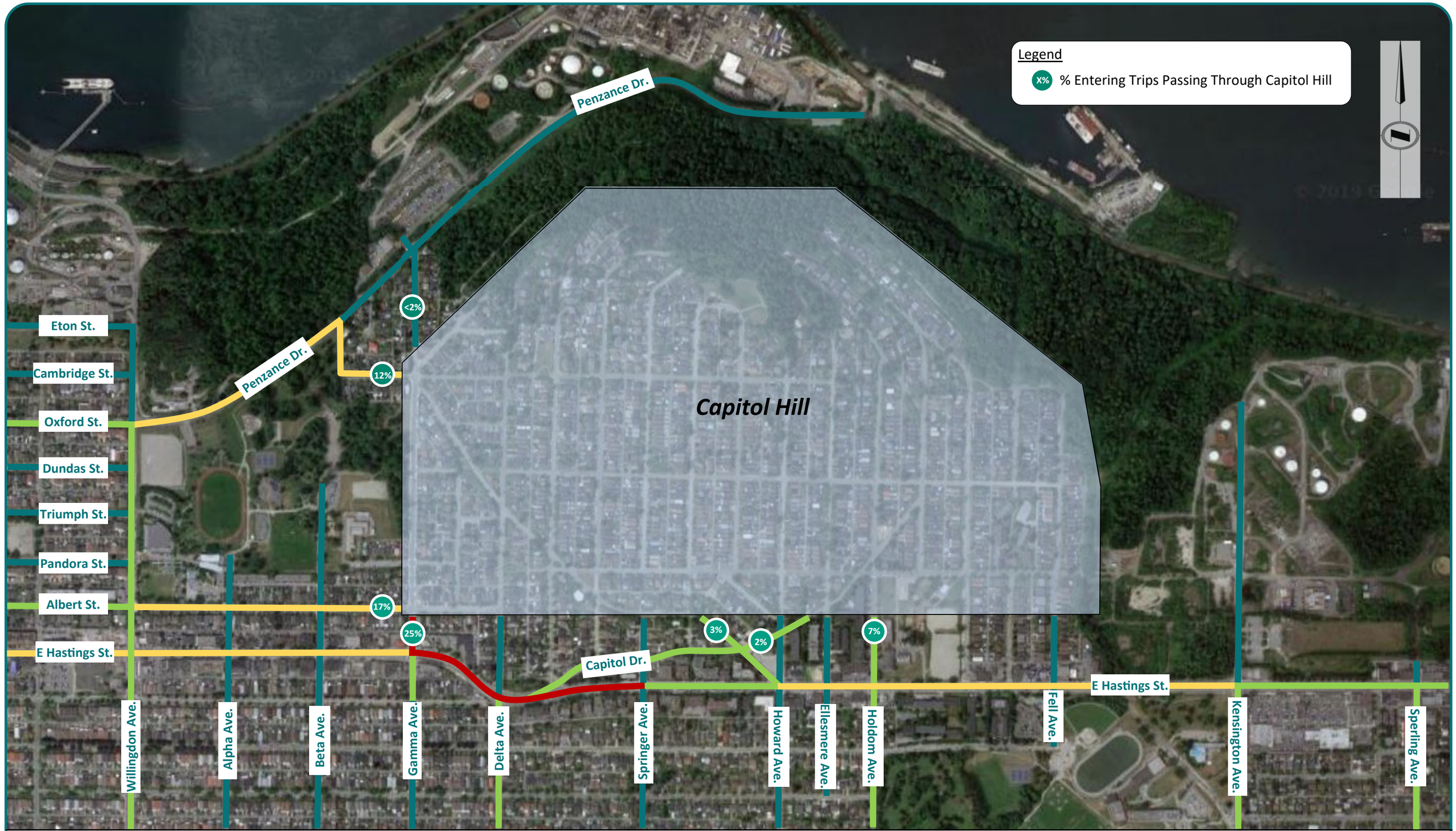
Parkland staff completing U-turn movements in the Confederation Park North Parking Lot was identified as a concern during the pre-proposal and kick-off meetings.

To mitigate this issue, temporary traffic control personnel have been deployed, at a cost to Parkland, to discourage staff from U-turning and heading eastbound on Penzance Drive. According to September 2019 Streetlight data, it shows that less than 5% of Parkland staff are completing this U-turn.

Top Routes Entering Capitol Hill

Top Routes is a feature on the StreetLight InSight® platform which calculates the most common routes entering, exiting, and passing through an area. *Figure 6* presents the most common trips passing through

(i.e. entering and exiting the grey translucent zone in one trip) Capitol Hill during PM peak hour between 5:00 PM – 6:00 PM. Segments with less than 2% of trips passing through the neighbourhood are not presented by Top Routes. *Figure 6* does not highlight pass-by trips that are less than 2%.



Parkland Burnaby Refinery – Traffic Management Study

Top Routes Passing Through Capitol Hill (Weekday PM Peak Hour: 5:00 PM - 6:00 PM)

FIGURE 6

Not to Scale

McElhanney
2111-05469-00

As shown in the above figure and in *Appendix C*, the following colours indicate the percentage of traffic passing through the Capitol Hill neighbourhood from lowest to highest:

- Teal (less than 2%),
- Green (3% - 7% shown),
- Yellow (12% - 17% shown), and
- Red (25% or greater shown).

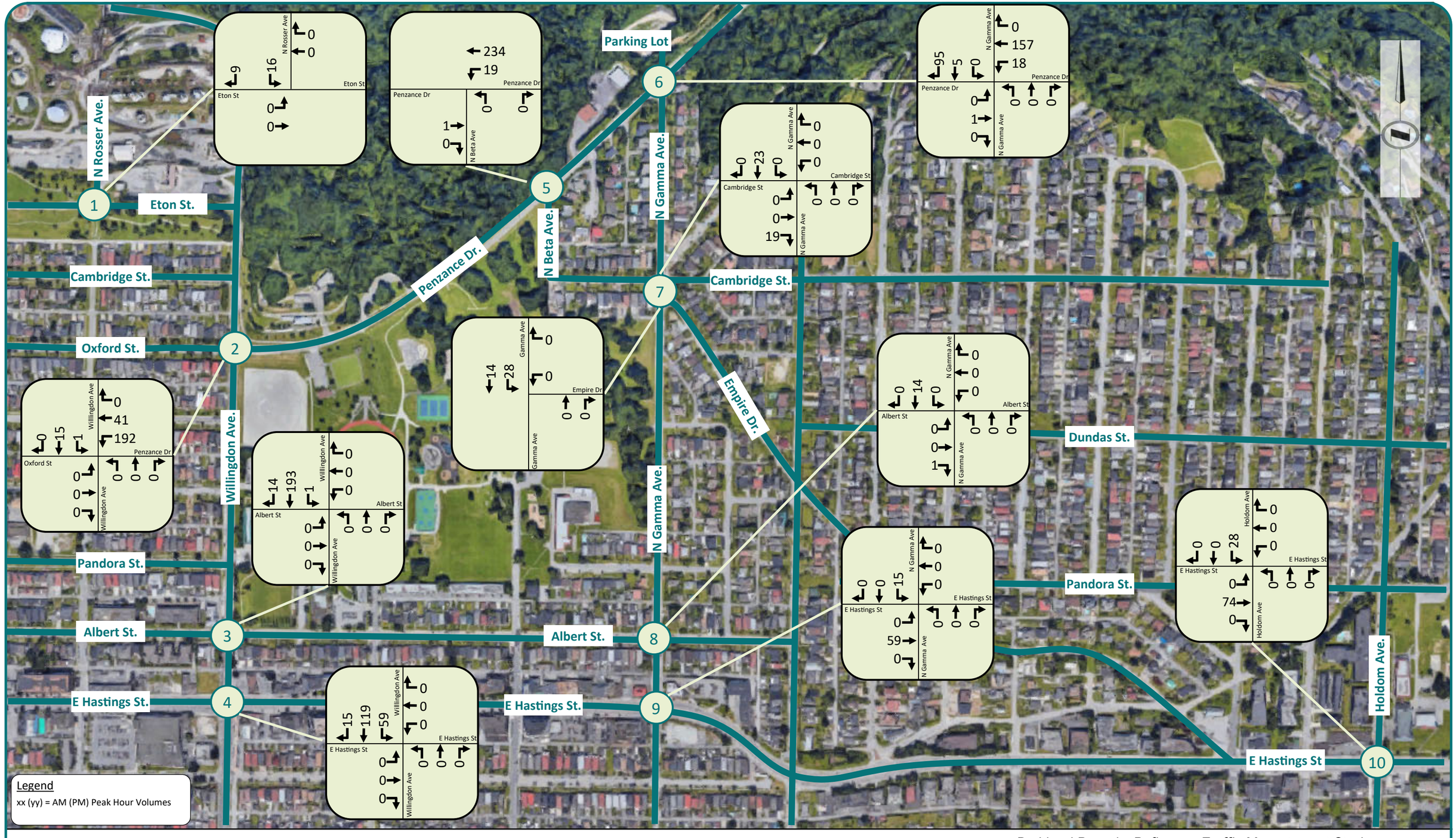
As shown in *Figure 6*, the largest portion of trips passing through Capitol Hill are made by regular commuters, not by Parkland staff. Eastbound traffic which would typically be using East Hastings Street are using other parallel roads, such as Albert Street, to avoid congestion along East Hastings Street. Traffic from Vancouver and Burnaby Heights areas are also using other routes, such as Penzance Drive, Cambridge Street, and Holdom Avenue, likely to avoid congestion along East Hastings Street as well.

Less than 2% of traffic entering or exiting the Capitol Hill area is originating from Penzance Drive east of Gamma Avenue (i.e. the refinery site).

2.5. WITH PROJECT TRAFFIC VOLUMES

To estimate the intersection traffic volumes generated by Parkland's turnaround period, the generated trips from *Table 2* were applied to the study area road network using the trip distribution presented in *Figure 4* and *Figure 5*. Estimated PM peak hour intersection volumes generated by Parkland's turnaround period are shown in *Figure 7*.

These intersection volumes were then added to the 2024 background traffic volumes to develop the 2024 combined traffic volumes. The 2024 (5-year horizon year) with turnaround trips PM peak hour traffic volumes are presented in *Figure 8*.



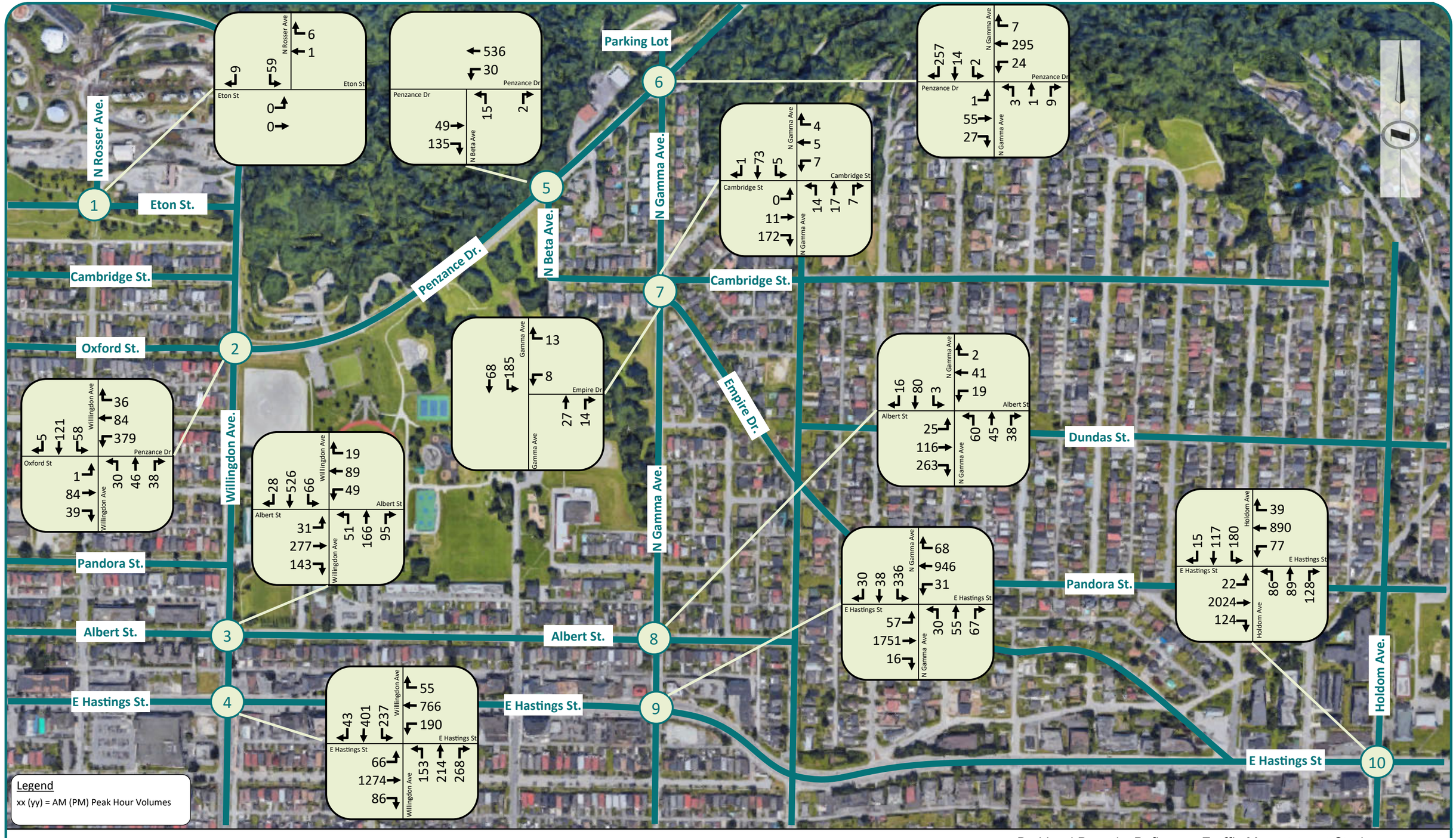
Parkland Burnaby Refinery – Traffic Management Study

Turnaround PM Peak Hour Traffic Volumes

FIGURE 7

Not to Scale

McElhanney
2111-05469-00



Parkland Burnaby Refinery – Traffic Management Study

2024 (5-Year Horizon Year) Background and Turnaround PM Peak Hour Traffic Volumes

FIGURE 8

Not to Scale

McElhanney
2111-05469-00

3. Traffic Operations Analysis

Traffic operations analysis was conducted for the following scenarios:

- 2019 Existing Conditions
- 2024 (5-Year Horizon Year) Background Conditions
- 2024 (5-Year Horizon Year) with Turnaround Trips

The existing and background scenarios were analyzed for the AM and PM weekday peak hours. The 2024 (5-year horizon year) with turnaround trips scenario was analyzed during the PM peak only. The AM peak was not analyzed for this scenario as staff are expected to arrive in a more random fashion over a longer period of time and are also outside the general traffic peak hour conditions.

3.1. SYNCHRO ANALYSIS SOFTWARE

Synchro software, version 10, was used to report the level of service (LOS) and average delay at each of the study intersections. Synchro is a traffic software used to determine traffic conditions based on volumes, laning, and type of traffic control. Synchro calculates average delays and queue lengths for each movement at an intersection. Average delays are then translated into LOS. It should be noted Synchro results are calculated, and therefore are typically conservative compared to observed traffic flow, which is affected by driver behaviour. Detailed Synchro analysis reports can be found in *Appendix B*.

3.2. INTERSECTION LEVEL OF SERVICE CRITERIA

Operations of roadway facilities are described in terms of Level of Service (LOS). LOS is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to manoeuvre. Six service levels are defined, ranging from LOS A, the best operating conditions, to LOS F, the worst operating conditions. LOS E corresponds to “at or near capacity” operations. When volumes exceed capacity, it results in stop-and-go conditions, which is designated as LOS F. The delay thresholds and corresponding LOS are presented in *Table 3*. The typical criterion for acceptable operation is LOS D. Therefore, any movement or intersection operating at LOS E or worse may require improvement.

Signalized operations were analyzed using the methodology contained in Chapter 19 of the *Highway Capacity Manual (HCM), Transportation Research Board, 2016*. This methodology determines the level of service by comparing the average control delay for all vehicles approaching the intersection to the delay thresholds shown in *Table 3*.

For unsignalized side-street stop-controlled and all-way stop-controlled intersections, the LOS calculations were conducted based on the methodology contained in Chapter 20 and Chapter 21,

respectively, of the HCM 6th Edition. The LOS rating is based on the average delay expressed in seconds per vehicle. For controlled approaches composed of a single lane, the control delay is computed as the average of all movements in that lane.

It should be noted that although Synchro reports overall intersection LOS at side-street stop-controlled unsignalized intersections, the overall LOS is not a good indicator of the side street performance, as it is calculated from the average delay for all vehicles. As a result, the overall LOS is typically heavily skewed toward the LOS for the free flow major movement, particularly where the proportion of free flow volume on the major street is very high. To better acknowledge the side-street performance, the overall LOS was not reported.

Table 3: Intersection Level of Service Definitions

Level of Service	Delay Criteria		Description
	Signalized	Unsignalized	
A	≤ 10	≤ 10	Represents free flow. Individual users are virtually unaffected by others in the traffic stream. Usually no conflicting traffic
B	> 10 to 20	> 10 to 15	Stable flow, but the presence of other users in the traffic stream begins to be noticeable. Occasionally some delay due to conflicting traffic
C	> 20 to 35	> 15 to 25	Stable flow, but the operation of individual users becomes significantly affected by interactions with others in the traffic stream. Delay is noticeable, but not inconveniencing.
D	> 35 to 55	> 25 to 35	Represents high-density, but stable flow. Delay is noticeable and irritating; increased likelihood of risk taking.
E	**> 55 to 80**	**> 35 to 50**	**Represents operating conditions at or near the capacity level. Delay approaching tolerance levels; risk taking behaviour is likely.**
F	**> 80 or v/c ratio > 1**	**> 50 or v/c ratio > 1**	**Represents forced or breakdown flow. Delay exceeds tolerance level; high likelihood of risk taking.**

Notes: Values shown are in seconds / vehicle. **BOLD** indicates unacceptable LOS.

3.3. LEVEL OF SERVICE RESULTS

2019 Existing Conditions

Traffic analysis was conducted at the study intersections for the 2019 existing conditions. Existing signal timing plans, provided by the City, were used in this analysis. A summary of the 2019 AM and PM peak hour intersection LOS results – volume to capacity (v/c) ratio, 95th percentile queue length, delay, and LOS – can be found in *Table 4* and *Table 5*. Detailed results can be found in *Appendix B*.

Table 4: 2019 Existing Conditions - AM Intersection Level of Service Results

2019 Existing AM Peak Hour - Results														
Intersection	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Eton Street / North Rosser Avenue (Unsignalized)	v/c Ratio	-		-	-	0.04*		-			0.02	-	0.02	-
	Delay	0				0*					9		9	
	LOS	A				A*					A		A	
	95% Queue	0				0*					1		1	
Penzance Drive / Willingdon Avenue (Unsignalized)	v/c Ratio	0.06			0.36			0.04			0.02			-
	Delay	10			14			8			8			
	LOS	B			B			A			A			
	95% Queue	2			13			1			1			
Albert Street / Willingdon Avenue (Unsignalized)	v/c Ratio	0.58			0.80			0.62			0.39			-
	Delay	18			32			21			15			23
	LOS	C			D			C			C			C
	95% Queue	27			61			32			14			-
East Hastings Street / Willingdon Avenue (Signalized)	v/c Ratio	0.24	0.29	0.15	0.86	0.64	0.64	0.61	0.54	0.57	0.42	0.38	0.39	-
	Delay	24	29	27	33	26	28	50	51	53	43	49	49	33
	LOS	C	C	C	C	C	C	D	D	D	D	D	D	C
	95% Queue	15	65	30	141	164	178	36	86	69	43	59	60	-
Penzance Drive / North Beta Avenue (Unsignalized)	v/c Ratio	-	0.15*		0.00		-	0.23	-	0.23	-			-
	Delay		0*		8			11		11				
	LOS		A*		A			B		B				
	95% Queue		0*		0			7		7				
Penzance Drive /North Gamma Avenue (Unsignalized)	v/c Ratio	0.17			0.01			0.04		0.08	0.06			-
	Delay	8			8			18		9	20			
	LOS	A			A			C		A	C			
	95% Queue	5			0			1		2	2			
Cambridge Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.02			0.07			0.18			0.05			-
	Delay	7			8			8			7			8
	LOS	A			A			A			A			A
	95% Queue	1			2			5			2			-
Cambridge Street / North Gamma Avenue – Empire Drive (Unsignalized)	v/c Ratio	-			0.16	-	0.16	-	0.04*		0.02	-		-
	Delay				9		9		0*		7			
	LOS				A		A		A*		A			
	95% Queue				5		5		0*		0			
Albert Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.19			0.24			0.61			0.22			-
	Delay	10			11			16			10			13
	LOS	A			B			C			A			B
	95% Queue	5			7			33			6			-
East Hastings Street / North Gamma Avenue (Signalized)	v/c Ratio	0.30	0.21	0.21	0.13	0.77	0.79	0.35			0.72			-
	Delay	24	7	7	11	21	25	49			57			22
	LOS	C	A	A	B	C	C	D			**E**			C
	95% Queue	15	41	46	14	223	250	54			103			-
East Hastings Street / Holdom Avenue (Signalized)	v/c Ratio	0.27	0.30	0.31	0.61	0.80	0.81	0.83			0.82			-
	Delay	57	13	13	32	24	27	62			59			28
	LOS	**E**	B	B	C	C	C	**E**			**E**			C
	95% Queue	13	71	74	84	237	266	138			150			-

Notes:

1. Average delay is given in seconds per vehicle, 95th percentile queue length is given in metres.
2. 95th percentile queue lengths for results assume an average vehicle-in-queue length of 7.6m.
3. * indicates results from Synchro software (HCM did not provide results).
4. **BOLD** = unacceptable operation.

Table 5: 2019 Existing Conditions - PM Intersection Level of Service Results

2019 Existing PM Peak Hour - Results														
Intersection	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Eton Street / North Rosser Avenue (Unsignalized)	v/c Ratio	-		-	-	0.01*		-			0.10	-	0.10	-
	Delay	0				0*					9		9	
	LOS	A				A*					A		A	
	95% Queue	0				0*					2		2	
Penzance Drive / Willingdon Avenue (Unsignalized)	v/c Ratio	0.29			1.25			0.03			0.04			-
	Delay	14			158			8			8			
	LOS	B			**F**			A			A			
	95% Queue	9			165			1			1			
Albert Street / Willingdon Avenue (Unsignalized)	v/c Ratio	0.98			0.42			0.68			0.90			-
	Delay	65			18			26			49			46
	LOS	**F**			C			D			**E**			**E**
	95% Queue	100			15			38			77			-
East Hastings Street / Willingdon Avenue (Signalized)	v/c Ratio	0.20	0.62	0.15	0.76	0.35	0.35	0.64	0.62	1.13	0.88	0.45	0.47	-
	Delay	18	30	22	34	22	23	48	52	147	81	49	49	44
	LOS	B	C	C	C	C	C	D	D	**F**	**F**	D	D	D
	95% Queue	20	150	30	61	82	87	30	107	204	72	72	72	-
Penzance Drive / North Beta Avenue (Unsignalized)	v/c Ratio	-	0.14*		0.02		-	0.07	-	0.07	-			-
	Delay		0*		8			16		16				
	LOS		A*		A			C		C				
	95% Queue		0*		1			2		2				
Penzance Drive /North Gamma Avenue (Unsignalized)	v/c Ratio	0.00			0.01			0.03		0.02	0.60			-
	Delay	8			7			21		9	17			
	LOS	A			A			C		A	C			
	95% Queue	0			0			1		1	31			
Cambridge Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.21			0.03			0.05			0.09			-
	Delay	8			7			8			8			8
	LOS	A			A			A			A			A
	95% Queue	6			1			2			2			-
Cambridge Street / North Gamma Avenue – Empire Drive (Unsignalized)	v/c Ratio	-			0.03	-	0.03	-	0.03		0.11	-		-
	Delay				10		10		0*		8			
	LOS				B		B		A*		A			
	95% Queue				1		1		0*		3			
Albert Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.52			0.10			0.25			0.15			-
	Delay	12			9			10			9			11
	LOS	B			A			A			A			B
	95% Queue	23			2			8			4			-
East Hastings Street / North Gamma Avenue (Signalized)	v/c Ratio	0.21	0.62	0.62	0.25	0.46	0.46	0.30			0.96			-
	Delay	17	21	22	39	24	25	35			83			30
	LOS	B	C	C	D	C	C	C			**F**			C
	95% Queue	14	159	175	16	109	116	68			211			-
East Hastings Street / Holdom Avenue (Signalized)	v/c Ratio	0.06	0.70	0.70	0.73	0.31	0.31	0.63			0.85			-
	Delay	18	21	23	89	14	14	45			66			27
	LOS	B	C	C	**F**	B	B	D			**E**			C
	95% Queue	6	189	207	55	72	77	119			146			-

Notes:

1. Average delay is given in seconds per vehicle, 95th percentile queue length is given in metres.
2. 95th percentile queue lengths for results assume an average vehicle-in-queue length of 7.6m.
3. * indicates results from Synchro software (HCM did not provide results).
4. **BOLD** = unacceptable operation.

As shown in *Table 4* and *Table 5*, all study intersections are operating at an acceptable overall LOS during the 2019 weekday AM and PM peak hours, with one exception. The Willingdon Avenue / Albert Street intersection operates at LOS E during the PM peak hour.

During the AM peak period, the southbound approach at East Hastings Street / North Gamma Avenue and north and south approaches at East Hastings Street / Holdom Avenue operate poorly at LOS E.

During the PM peak period, the westbound movements at Penzance Drive / Willingdon Avenue, eastbound movements at Albert Street / Willingdon Avenue, and southbound movements at East Hastings operate poorly at LOS E. Additionally, many of the side-street movements at the study intersections along East Hastings Street operate at LOS E or worse.

2024 (5-Year Horizon Year)

Traffic analysis was conducted at the study intersections for the 2024 (5-year horizon year) scenario. Existing signal timing plans, provided by the City, were used in this analysis. A summary of the 2024 AM and PM peak hour intersection LOS results for the background conditions scenario can be found in *Table 6* and *Table 7*. A summary of PM peak hour LOS results for the 2024 with turnaround trips scenario can be found in *Table 8*. Detailed results can be found in *Appendix B*.

Table 6: 2024 (5-Year Horizon Year) Background AM Intersection Level of Service Results

2024 Background AM Peak Hour – Results														
Intersection	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Eton Street / North Rosser Avenue (Unsignalized)	v/c Ratio	-		-	-	0.04*		-			0.02	-	0.02	-
	Delay	0				0*					9		9	
	LOS	A				A*					A		A	
	95% Queue	0				0*					1		1	
Penzance Drive / Willingdon Avenue (Unsignalized)	v/c Ratio	0.06			0.38			0.04			0.02			-
	Delay	10			14			8			8			
	LOS	B			B			A			A			
	95% Queue	2			13			1			1			
Albert Street / Willingdon Avenue (Unsignalized)	v/c Ratio	0.61			0.84			0.65			0.42			-
	Delay	20			36			23			16			26
	LOS	C			**E**			C			C			D
	95% Queue	30			67			36			15			-
East Hastings Street / Willingdon Avenue (Signalized)	v/c Ratio	0.25	0.29	0.15	0.89	0.66	0.66	0.63	0.56	0.59	0.43	0.39	0.40	-
	Delay	24	29	27	37	27	28	51	52	53	43	49	49	34
	LOS	C	C	C	D	C	C	D	D	D	D	D	D	C
	95% Queue	15	67	31	104	169	184	39	87	71	43	61	62	-
Penzance Drive / North Beta Avenue (Unsignalized)	v/c Ratio	-	0.15*		0.00		-	0.24	-	0.24	-			-
	Delay		0*		8			11		11				
	LOS		A*		A			B		B				
	95% Queue		0*		0			7		7				
Penzance Drive /North Gamma Avenue (Unsignalized)	v/c Ratio	0.17			0.01			0.04		0.08	0.06			-
	Delay	8			8			18		9	20			
	LOS	A			A			C		A	C			
	95% Queue	5			0			1		2	2			
Cambridge Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.02			0.07			0.19			0.05			-
	Delay	7			8			8			8			8
	LOS	A			A			A			A			A
	95% Queue	1			2			5			2			-
Cambridge Street / North Gamma Avenue – Empire Drive (Unsignalized)	v/c Ratio	-			0.16	-	0.16	-	0.04*		0.02	-		-
	Delay				10		10		0*		7			
	LOS				A		A		A*		A			
	95% Queue				5		5		0*		1			
Albert Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.19			0.25			0.63			0.22			-
	Delay	10			11			16			10			13
	LOS	A			B			C			A			B
	95% Queue	5			8			34			7			-
East Hastings Street / North Gamma Avenue (Signalized)	v/c Ratio	0.32	0.22	0.22	0.14	0.79	0.82	0.36			0.73			-
	Delay	28	7	7	11	22	26	49			57			23
	LOS	C	A	A	B	C	C	D			**E**			C
	95% Queue	17	42	47	14	233	266	55			105			-
East Hastings Street / Holdom Avenue (Signalized)	v/c Ratio	0.32	0.32	0.32	0.64	0.83	0.84	0.84			0.83			-
	Delay	66	14	14	36	25	29	64			59			30
	LOS	**E**	B	B	D	C	C	**E**			**E**			C
	95% Queue	15	74	77	90	252	285	143			154			-

Notes:

1. Average delay is given in seconds per vehicle, 95th percentile queue length is given in metres.
2. 95th percentile queue lengths for results assume an average vehicle-in-queue length of 7.6m.
3. * indicates results from Synchro software (HCM did not provide results).
4. **BOLD** = unacceptable operation.

Table 7: 2024 (5-Year Horizon Year) Background PM Intersection Level of Service Results

2024 Background PM Peak Hour - Results														
Intersection	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Eton Street / North Rosser Avenue (Unsignalized)	v/c Ratio	-		-	-	0.01*		-			0.10	-	0.10	-
	Delay	0				0*					9		9	
	LOS	A				A*					A		A	
	95% Queue	0				0*					2		2	
Penzance Drive / Willingdon Avenue (Unsignalized)	v/c Ratio	0.30			1.31			0.03			0.04			-
	Delay	14			183			8			8			
	LOS	B			**F**			A			A			
	95% Queue	9			182			1			1			
Albert Street / Willingdon Avenue (Unsignalized)	v/c Ratio	1.03			0.44			0.72			0.94			-
	Delay	81			19			29			56			54
	LOS	**F**			C			D			**F**			**F**
	95% Queue	116			17			41			84			-
East Hastings Street / Willingdon Avenue (Signalized)	v/c Ratio	0.21	0.64	0.15	0.79	0.36	0.36	0.67	0.64	1.17	0.91	0.47	0.48	-
	Delay	18	30	22	38	22	23	50	52	161	90	49	49	46
	LOS	B	C	C	D	C	C	D	D	**F**	**F**	D	D	D
	95% Queue	21	156	30	64	84	88	35	110	218	78	74	74	-
Penzance Drive / North Beta Avenue (Unsignalized)	v/c Ratio	-	0.14*		0.02		-	0.07	-	0.07	-			-
	Delay		0*		8			16		16				
	LOS		A*		A			C		C				
	95% Queue		0*		1			2		2				
Penzance Drive /North Gamma Avenue (Unsignalized)	v/c Ratio	0.00			0.01			0.03		0.02	0.62			-
	Delay	8			7			22		9	17			
	LOS	A			A			**C**		A	C			
	95% Queue	0			0			1		1	33			
Cambridge Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.21			0.03			0.05			0.10			-
	Delay	8			7			8			8			8
	LOS	A			A			A			A			A
	95% Queue	6			1			2			2			-
Cambridge Street / North Gamma Avenue – Empire Drive (Unsignalized)	v/c Ratio	-			0.03	-	0.03	-	0.03*		0.12	-		-
	Delay				10		10		0*		8			
	LOS				B		B		A*		A			
	95% Queue				1		1		0*		3			
Albert Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.54			0.10			0.26			0.15			-
	Delay	12			9			10			9			11
	LOS	B			A			A			A			B
	95% Queue	24			2			8			4			-
East Hastings Street / North Gamma Avenue (Signalized)	v/c Ratio	0.22	0.63	0.63	0.27	0.47	0.47	0.31			0.99			-
	Delay	17	21	22	41	24	25	35			92			31
	LOS	B	C	C	D	C	C	C			**F**			C
	95% Queue	15	164	181	17	112	119	69			223			-
East Hastings Street / Holdom Avenue (Signalized)	v/c Ratio	0.07	0.72	0.72	0.80	0.32	0.32	0.64			0.87			-
	Delay	18	22	24	103	14	15	45			70			28
	LOS	B	C	C	**F**	B	B	D			**E**			C
	95% Queue	7	198	217	59	74	80	122			153			-

Notes:

1. Average delay is given in seconds per vehicle, 95th percentile queue length is given in metres.
2. 95th percentile queue lengths for results assume an average vehicle-in-queue length of 7.6m.
3. * indicates results from Synchro software (HCM did not provide results).
4. **BOLD** = unacceptable operation.

Table 8: 2024 (5-Year Horizon Year) PM Turnaround Period Intersection Level of Service Results

2024 PM Turnaround Period Peak Hour - Results														
Intersection	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Eton Street / North Rosser Avenue (Unsignalized)	v/c Ratio	-		-	-	0.01*		-			0.16	-	0.16	-
	Delay	0				0*					9		9	
	LOS	A				A*					A		A	
	95% Queue	0				0*					5		5	
Penzance Drive / Willingdon Avenue (Unsignalized)	v/c Ratio	0.30			2.04			0.03			0.04			-
	Delay	15			501			8			8			
	LOS	C			**F**			A			A			
	95% Queue	11			413			1			1			
Albert Street / Willingdon Avenue (Unsignalized)	v/c Ratio	1.16			0.50			0.80			1.41			-
	Delay	84			21			31			215			119
	LOS	**F**			C			D			**F**			**F**
	95% Queue	108			17			41			233			-
East Hastings Street / Willingdon Avenue (Signalized)	v/c Ratio	0.21	0.64	0.15	0.79	0.36	0.36	0.81	0.64	1.17	1.21	0.68	0.69	-
	Delay	18	30	22	38	22	23	65	52	161	184	55	56	54
	LOS	B	C	C	D	C	C	**E**	D	**F**	**F**	**E**	**E**	D
	95% Queue	21	156	30	64	84	88	52	110	218	148	107	106	-
Penzance Drive / North Beta Avenue (Unsignalized)	v/c Ratio	-	0.14*		0.05		-	0.16	-	0.16	-			-
	Delay		0*		8			34		34				
	LOS		A*		A			D		D				
	95% Queue		0*		1			5		5				
Penzance Drive /North Gamma Avenue (Unsignalized)	v/c Ratio	0.00			0.03			0.02		0.02	1.39			-
	Delay	9			8			9		9	209			
	LOS	A			A			A		A	**F**			
	95% Queue	0			1			1		1	258			
Cambridge Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.24			0.03			0.06			0.14			-
	Delay	8			8			8			8			8
	LOS	A			A			A			A			A
	95% Queue	8			1			2			4			-
Cambridge Street / North Gamma Avenue – Empire Drive	v/c Ratio	-			0.04	-	0.04	-	0.03*		0.14	-		-
	Delay				11		11		0*		8			
	LOS				B		B		A*		A			
	95% Queue				1		1		0*		4			
Albert Street / North Gamma Avenue (Unsignalized)	v/c Ratio	0.54			0.10			0.26			0.18			-
	Delay	13			9			10			10			11
	LOS	B			A			B			A			B
	95% Queue	25			2			8			5			-
East Hastings Street / North Gamma Avenue (Signalized)	v/c Ratio	0.22	0.65	0.66	0.29	0.47	0.47	0.31			1.03			-
	Delay	17	22	23	44	24	25	35			103			33
	LOS	B	C	C	D	C	C	C			**F**			C
	95% Queue	15	173	190	17	112	119	69			242			-
East Hastings Street / Holdom Avenue (Signalized)	v/c Ratio	0.07	0.74	0.75	0.86	0.32	0.32	0.62			0.98			-
	Delay	18	23	25	119	14	15	44			94			31
	LOS	B	C	C	**F**	B	B	D			**F**			C
	95% Queue	7	209	230	62	74	80	121			185			-

Notes:

1. Average delay is given in seconds per vehicle, 95th percentile queue length is given in metres.
2. 95th percentile queue lengths for results assume an average vehicle-in-queue length of 7.6m.
3. * indicates results from Synchro software (HCM did not provide results).
4. **BOLD** = unacceptable operation.
5. The WB approach PHF of Penzance Drive / Willingdon Avenue was adjusted from 0.50 to 0.65 to account for new volume entering the intersection over a half hour period.

Compared to the 2019 conditions, background traffic operations in 2024 are expected to degrade slightly at the study intersections, as shown in *Table 6* and *Table 7*. During the PM peak period, the Albert Street / Willingdon Avenue intersection is expected to operate at overall LOS F versus LOS E. All other study intersections are expected to operate at an acceptable overall LOS during the weekday AM and PM peak hours.

As shown in *Table 8*, with the addition of turnaround traffic, operations along Penzance Drive, Willingdon Avenue, and North Gamma Avenue degrade significantly compared to the 2024 background traffic operations. This is due to the additional Parkland traffic that is expected to use these roads.

4. Mitigation Measures

To reduce the amount of Parkland traffic cutting through Capitol Hill, the following improvements are proposed:

- Convert the existing two-way stop-controlled intersection at Willingdon Avenue and Penzance Drive to a signalized intersection (preferred option). A signalized intersection would reduce the westbound delay and queuing significantly; the overall intersection would improve from LOS F to B. To minimize delays during off-peak periods, the signal can be set to rest on green on the mainline, Willingdon Avenue. The eastbound traffic will only trigger the signal after stopping over the vehicle detector for approximately 30 to 60 seconds. Furthermore, an eastbound queue detector can be installed so that the eastbound green time can be extended during the PM peak hour. This will maintain priority and minimize delays on Willingdon Avenue most of the day. While more expensive than the implementation of a stop-controlled intersection, a signalized intersection will provide better operations as signal timing can be optimized to better address the unique demands of this intersection.

- Alternatively, convert the Willingdon Avenue and Penzance Drive intersection to a four-way stop-controlled intersection. This is expected to improve the westbound approach delay and shorten the 95th percentile queue length during the 2024 peak hour with turnaround traffic scenario but it will still be operating at poor LOS F in the PM peak. In addition, this option will cause unnecessary stoppages for Willingdon Avenue traffic when there is minimal demand from Penzance Drive. Therefore, a four-way stop-controlled intersection is not recommended.

- Addition of northbound and eastbound right-turn lanes at the Willingdon Avenue / Albert Street intersection is expected to improve overall operations.

- Increase police enforcement to deter vehicles from making illegal left turns at North Beta Avenue and North Gamma Avenue.

- Continue to educate Parkland staff to use Penzance Drive and Willingdon Avenue when leaving Parkland Refineries.

- Evaluate staggered staff shift times as this will spread out the arrival and departure patterns improving traffic operations at the study intersections, especially at the Willingdon Avenue / Penzance Drive and Willingdon Avenue / Albert Street intersections.

- Optimize the signal timing plan at the East Hasting Street / Willingdon Avenue intersection to provide the southbound approach with additional green time as this is expected to improve southbound and overall traffic operations.

Table 9 presents the 2024 PM peak hour LOS results for both background and turnaround traffic assuming the above mitigation measures have been implemented.

Table 9: 2024 (5-Year Horizon Year) PM Turnaround Period Intersection Level of Service Results – With Improvement Measures

2024 PM Turnaround Period Peak Hour - Results with Improvement Measures														
Intersection	Attribute	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Overall
Penzance Drive / Willingdon Avenue (Signalized)	v/c Ratio	0.14			0.79			0.41			0.56			-
	Delay	5			13			26			28			16
	LOS	A			B			C			C			B
	95% Queue	14			123			33			49			-
Penzance Drive / Willingdon Avenue (Four-Way Stop-Controlled)	v/c Ratio	0.28			1.16			0.29			0.40			-
	Delay	12			114			13			14			74
	LOS	B			**F**			B			B			**F**
	95% Queue	8			192			8			14			-
East Hastings Street / Willingdon Avenue (Optimized Signal Timing)	v/c Ratio	0.24	0.76	0.18	0.84	0.41	0.42	0.59	0.66	1.22	0.79	0.59	0.60	-
	Delay	24	40	29	46	29	30	39	54	180	49	49	49	51
	LOS	C	D	C	D	C	C	D	D	**F**	D	D	D	D
	95% Queue	24	177	35	71	94	98	71	112	229	103	101	100	-

Notes:
1. Average delay is given in seconds per vehicle, 95th percentile queue length is given in metres.
2. 95th percentile queue lengths for results assume an average vehicle-in-queue length of 7.6m.
3. **BOLD** = unacceptable operation.

As shown in *Table 9*, if the Penzance Drive / Willingdon Avenue intersection is converted to a signalized intersection, all intersection movements are expected to operate at an acceptable LOS and the westbound 95th percentile queue length is expected to be 123 m long. Converting this intersection to a four-way stop-controlled intersection is expected to reduce the 95th percentile queue length, however the overall intersection operates poorly at LOS F.

If the East Hastings Street / Willingdon Avenue intersection is optimized, the southbound approach performance at this intersection can be expected to improve from LOS F to LOS D.

To improve general traffic flow in the area, the following changes could be considered:

- As shown in *Figure 9*, to construct a cul-de-sac on the north end of the existing North Beta Avenue to close the existing access to Penzance Drive, In addition, this concept removes speed humps and realigns North Beta Avenue to intersect Penzance Drive further west. It also removes the left-turn restriction at the proposed realigned North Beta Avenue / Penzance Drive

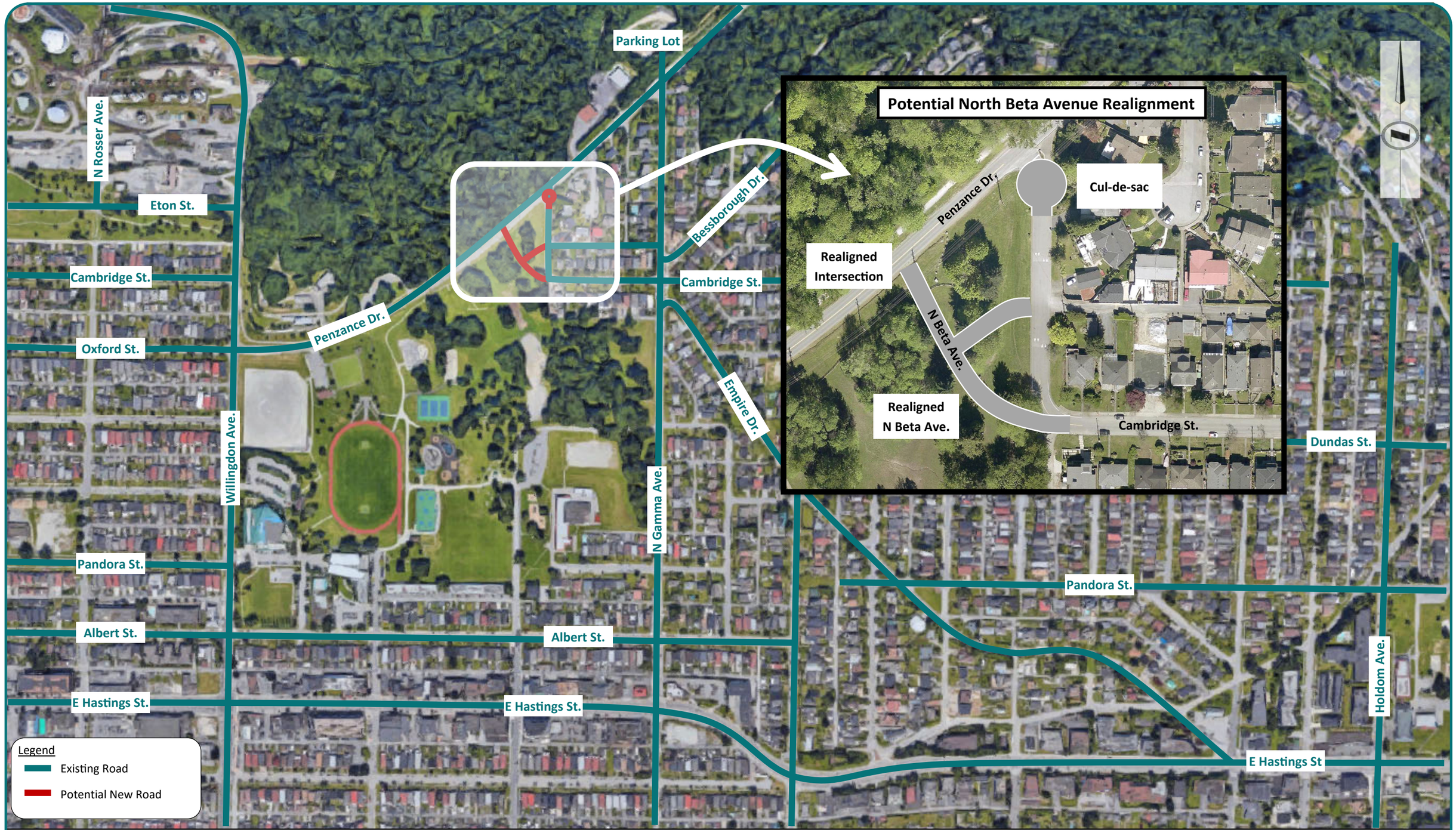
intersection to encourage its use as a collector road, as it is already classified as one; and continues to restrict westbound left turn at North Gamma Avenue. This option will result in the loss of a portion of the off-leash dog park.

- A less capital-intensive option would be to remove existing speed humps on North Beta Avenue to encourage its use as a collector road.

- Another option is to convert North Beta Avenue and Cambridge Street to local roads and retain the existing speed humps. A high-level sketch of these improvements is presented *Figure 10*. This option maintains the westbound left turn restriction at North Beta Avenue; converts North Gamma Avenue (north of Cambridge Street) to a collector road and remove the speed humps; removes the left-turn restriction at North Gamma Avenue / Penzance Avenue intersection; and allows Parkland and Island Tug and Barge traffic to use North Gamma Avenue.

- A more expensive improvement option would be to extend Penzance Drive to Cliff Avenue to provide regional traffic currently cutting through Capitol Hill an alternative route which passes around the neighbourhood. A high-level sketch of this improvement is presented in *Figure 11*. This change would likely provide some benefit as it would develop an additional east-west corridor; however, it would be a costly project as it passes through geotechnically challenging terrain. Additionally, the change may increase traffic through North Burnaby as commuters try to avoid East Hastings Street congestion and overload the Highway 7A & Hastings Street/Cliff Avenue intersection.

Any of the above improvement could likely improve intersection operations along Willingdon Avenue as less vehicles would be routed onto this road; however, they would likely result in additional refinery traffic travelling though Capitol Hill. Additionally, converting North Gamma Avenue to a collector road would shift vehicles away from nearby park space and create a less complicated collector road corridor as it would eliminate an additional turn and the 90-degree bend at North Beta Avenue.



McElhanney
2111-05469-00

Parkland Burnaby Refinery - Traffic Management Study

Potential North Beta Avenue Realignment

FIGURE 9

Not to Scale

McElhanney
2111-05469-00

Parkland Burnaby Refinery - Traffic Management Study

Potential Road Network Changes

FIGURE 10

Not to Scale

McElhanney
2111-05469-00

Parkland Burnaby Refinery - Traffic Management

Possible Penzance Drive / Barnet Highway Connection

FIGURE 11

Not to Scale

5. Summary

The purpose of this technical report is to review traffic operations generally within the Capitol Hill neighbourhood in Burnaby, British Columbia. Through the pre-proposal and kick-off meetings, site visit, and traffic analysis, the following issues were identified:

- Illegal westbound left-turns from Penzance Drive to North Gamma Avenue and North Beta Avenue, and commuters cutting through the Capitol Hill Neighbourhood.
- Based on the Top Routes data, the largest portion of trips passing through Capitol Hill are made by regular commuters, not by Parkland staff. Less than 2% of traffic entering or exiting the Capitol Hill area is originating from Penzance Drive east of Gamma Avenue (i.e. the refinery and Island Tug and Barge).
- Long vehicle queues on the westbound approach of the Willingdon Avenue / Penzance Drive intersection during the PM peak hour shift change.
- Congestions at other locations:
    - East Hastings Street / Willingdon Avenue,
    - Willingdon Avenue / Albert Street, and
    - Southbound approach of the East Hastings Street / North Gamma Avenue and East Hastings Street / Holdom Avenue intersections.

5.1. TRAFFIC ANALYSIS

Traffic analysis was conducted for the ten study intersections during the AM and PM peak hour periods. Analysis was conducted for two scenarios, 2019 (existing conditions) and 2024 (5-year horizon year).

Based on the 2019 (existing conditions) traffic volumes, most study intersections are operating at an overall acceptable LOS. The Willingdon Avenue / Albert Street intersection is expected to operate at LOS E or worse overall. Individual movements at other intersections such as East Hastings Street / North Gamma Avenue and East Hastings Street / Willingdon Avenue are also operating at LOS E or worse.

By 2024, traffic operations are expected to degrade. Most study intersections are expected to continue to operate at an acceptable LOS. However, with additional site traffic from Parkland Refineries, study intersections along Penzance Drive and Willingdon Avenue are expected to operate below an acceptable LOS overall.

5.2. RECOMMENDATIONS

To reduce the amount of Parkland refining traffic cutting through Capitol Hill, implementation of the following changes should be considered:

- Recommend converting the existing two-way stop-controlled intersection at Willingdon Avenue and Penzance Drive to a signalized intersection. To minimize delays during off-peak periods, the signal can be set to rest on green on the mainline, Willingdon Avenue. The eastbound traffic will only trigger the signal after stopping over the vehicle detector for approximately 30 to 60 seconds.

- Install northbound and eastbound right-turn lanes at the Willingdon Avenue / Albert Street intersection to improve overall operations.

- Continue to educate staff to use Penzance Drive and Willingdon Avenue when leaving Parkland Refineries.

- Increase enforcement of westbound left-turn restrictions on Penzance Drive.

- Evaluate staggered staff shift times to spread out the arrival and departure patterns of Parkland staff.

- Optimize the signal timing plan at the East Hasting Street / Willingdon Avenue intersection to provide the southbound approach with additional green time.

To improve general traffic flow in the area, the following changes could be considered:

- Construct a cul-de-sac on the north end of the existing North Beta Avenue to close the existing access to Penzance Drive. Remove speed humps and realign North Beta Avenue to intersect Penzance Drive further west. Remove the left-turn restriction at the proposed realigned North Beta Avenue / Penzance Drive intersection to encourage its use as a collector road, as it is already classified as one. Continue to restrict westbound left turn at North Gamma Avenue.

- A less capital-intensive option would be to remove existing speed humps on North Beta Avenue to encourage its use as a collector road.

- Another option is to convert North Beta and Cambridge Street to local road and retain the existing speed humps. Maintain westbound left turn restriction at North Beta Avenue. Convert North Gamma Avenue (north of Cambridge Street) to a collector road and remove the speed humps. Remove the left-turn restriction at North Gamma Avenue / Penzance Drive intersection allowing refinery and Island Tug and Barge traffic utilizing North Gamma Avenue.

- A more expensive improvement options is to extend Penzance Drive to Cliff Avenue to provide regional traffic currently cutting through Capitol Hill an alternative route which passes around the neighbourhood. This change would likely provide significant benefit as it would develop an

additional east-west corridor; however, it would be an expensive project as it passes through geotechnically challenging terrain. Additionally, the change may overload the Highway 7A & Hastings Street/Cliff Avenue intersection. This change should be considered as part of a larger regional planning study.

- Review and update signal timing plans and coordination along Hastings Street as traffic patterns or traffic volumes evolve in the area over time.

Implementing any of the above improvement could likely improve intersection operations along Willingdon Avenue as less vehicles would be routed onto this road; however, they would likely result in additional refinery traffic travelling though Capitol Hill. Additionally, converting North Gamma Avenue to a collector road would shift vehicles away from nearby park space and create a less complicated collector road corridor as it would eliminate an additional turn and the 90-degree bend at North Beta Avenue.

APPENDIX A – TRAFFIC COUNT SHEETS

Eton St and N Rosser - TMC
Wed Oct 16, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 710044, Location: 49.287365, -123.005756

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

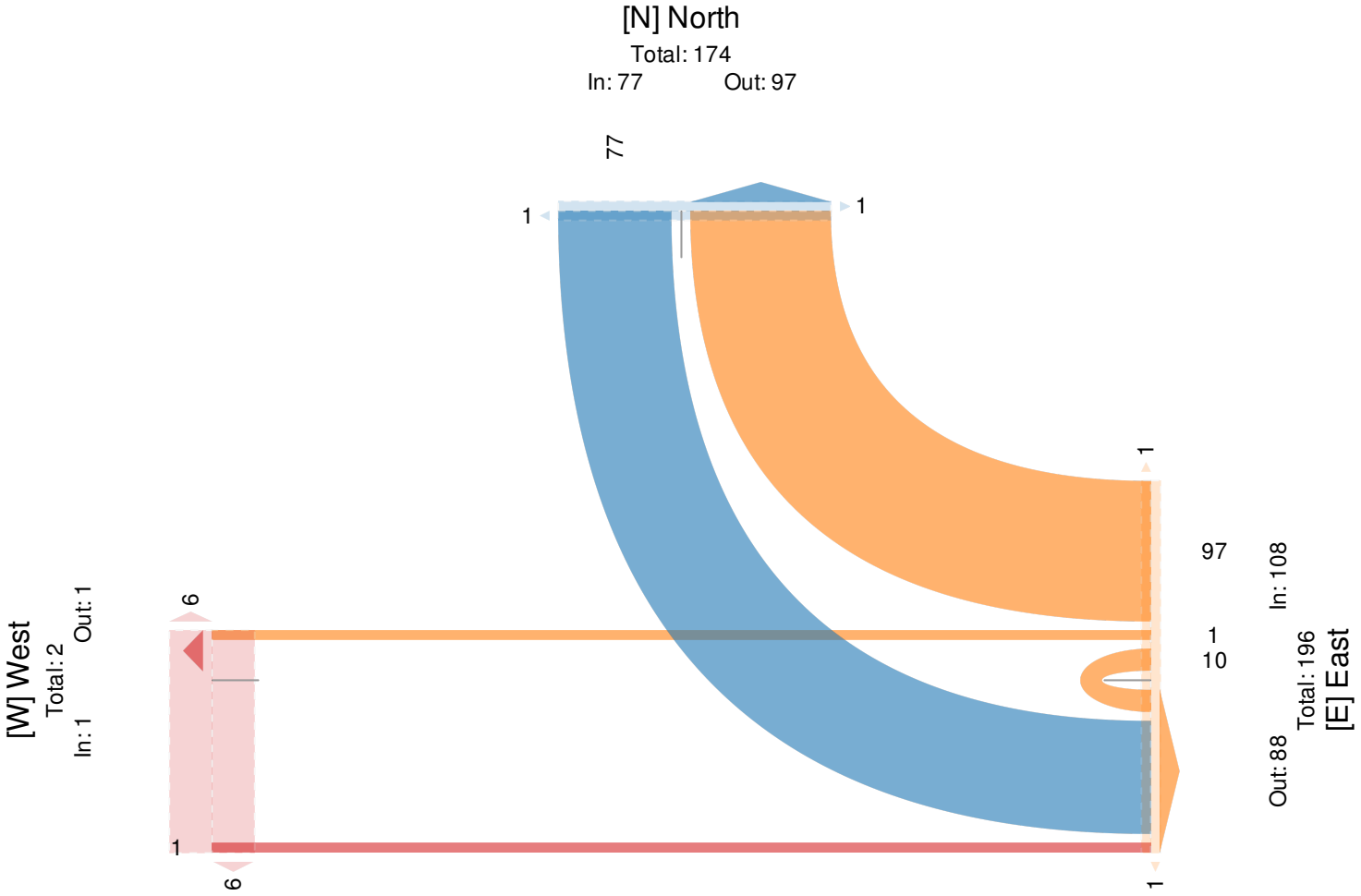
Leg	North					West					East					
Direction	Southbound					Eastbound					Westbound					
Time	L	R	U	App	Ped*	L	T	U	App	Ped*	T	R	U	App	Ped*	Int
2019-10-16 6:00AM	0	0	0	**0**	0	0	0	0	**0**	0	0	7	0	**7**	0	**7**
6:15AM	3	0	0	**3**	0	0	0	0	**0**	0	0	11	1	**12**	0	**15**
6:30AM	2	0	0	**2**	0	0	0	0	**0**	0	0	11	0	**11**	0	**13**
6:45AM	5	0	0	**5**	0	0	0	0	**0**	0	0	16	0	**16**	0	**21**
Hourly Total	10	0	0	**10**	0	0	0	0	**0**	0	0	45	1	**46**	0	**56**
7:00AM	1	0	0	**1**	0	0	0	0	**0**	1	0	2	0	**2**	0	**3**
7:15AM	2	0	0	**2**	0	0	0	0	**0**	0	0	5	0	**5**	0	**7**
7:30AM	3	0	0	**3**	0	0	0	0	**0**	1	0	2	1	**3**	0	**6**
7:45AM	2	0	0	**2**	0	0	0	0	**0**	1	0	6	1	**7**	0	**9**
Hourly Total	8	0	0	**8**	0	0	0	0	**0**	3	0	15	2	**17**	0	**25**
8:00AM	1	0	0	**1**	0	0	0	0	**0**	1	0	5	2	**7**	0	**8**
8:15AM	3	0	0	**3**	0	0	0	0	**0**	1	0	4	0	**4**	0	**7**
8:30AM	1	0	0	**1**	0	0	0	0	**0**	0	0	2	1	**3**	0	**4**
8:45AM	0	0	0	**0**	0	0	1	0	**1**	0	0	4	1	**5**	0	**6**
Hourly Total	5	0	0	**5**	0	0	1	0	**1**	2	0	15	4	**19**	0	**25**
4:00PM	1	0	0	**1**	0	0	0	0	**0**	0	0	3	0	**3**	1	**4**
4:15PM	0	0	0	**0**	0	0	0	0	**0**	0	0	1	0	**1**	0	**1**
4:30PM	2	0	0	**2**	0	0	0	0	**0**	0	0	3	0	**3**	0	**5**
4:45PM	6	0	0	**6**	0	0	0	0	**0**	0	0	4	0	**4**	0	**10**
Hourly Total	9	0	0	**9**	0	0	0	0	**0**	0	0	11	0	**11**	1	**20**
5:00PM	4	0	0	**4**	0	0	0	0	**0**	0	0	0	1	**1**	0	**5**
5:15PM	6	0	0	**6**	0	0	0	0	**0**	3	0	1	0	**1**	0	**7**
5:30PM	26	0	0	**26**	1	0	0	0	**0**	0	1	1	0	**2**	1	**28**
5:45PM	5	0	0	**5**	0	0	0	0	**0**	1	0	1	1	**2**	0	**7**
Hourly Total	41	0	0	**41**	1	0	0	0	**0**	4	1	3	2	**6**	1	**47**
6:00PM	1	0	0	**1**	1	0	0	0	**0**	0	0	3	0	**3**	0	**4**
6:15PM	1	0	0	**1**	0	0	0	0	**0**	2	0	0	0	**0**	0	**1**
6:30PM	2	0	0	**2**	0	0	0	0	**0**	0	0	3	1	**4**	0	**6**
6:45PM	0	0	0	**0**	0	0	0	0	**0**	1	0	2	0	**2**	0	**2**
Hourly Total	4	0	0	**4**	1	0	0	0	**0**	3	0	8	1	**9**	0	**13**
Total	77	0	0	**77**	2	0	1	0	**1**	12	1	97	10	**108**	2	**186**
% Approach	100%	0%	0%	**-**	-	0%	100%	0%	**-**	-	0.9%	89.8%	9.3%	**-**	-	-
% Total	41.4%	0%	0%	**41.4%**	-	0%	0.5%	0%	**0.5%**	-	0.5%	52.2%	5.4%	**58.1%**	-	-
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	71	0	0	**71**	-	0	0	0	**0**	-	0	65	10	**75**	-	146
% Lights	92.2%	0%	0%	**92.2%**	-	0%	0%	0%	**0%**	-	0%	67.0%	100%	**69.4%**	-	78.5%
Single-Unit Trucks	1	0	0	**1**	-	0	1	0	**1**	-	0	7	0	**7**	-	9
% Single-Unit Trucks	1.3%	0%	0%	**1.3%**	-	0%	100%	0%	**100%**	-	0%	7.2%	0%	**6.5%**	-	4.8%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	18	0	**18**	-	18
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	18.6%	0%	**16.7%**	-	9.7%
Buses	3	0	0	**3**	-	0	0	0	**0**	-	0	4	0	**4**	-	7
% Buses	3.9%	0%	0%	**3.9%**	-	0%	0%	0%	**0%**	-	0%	4.1%	0%	**3.7%**	-	3.8%
Bicycles on Road	2	0	0	**2**	-	0	0	0	**0**	-	1	3	0	**4**	-	6
% Bicycles on Road	2.6%	0%	0%	**2.6%**	-	0%	0%	0%	**0%**	-	100%	3.1%	0%	**3.7%**	-	3.2%
Pedestrians	-	-	-	-	1	-	-	-	-	12	-	-	-	-	2	
% Pedestrians	-	-	-	-	50.0%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	50.0%	-	-	-	-	0%	-	-	-	-	0%	-

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

Eton St and N Rosser - TMC
Wed Oct 16, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 710044, Location: 49.287365, -123.005756

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Eton St and N Rosser - TMC
Wed Oct 16, 2019
AM Peak (6 AM - 7 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 710044, Location: 49.287365, -123.005756

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

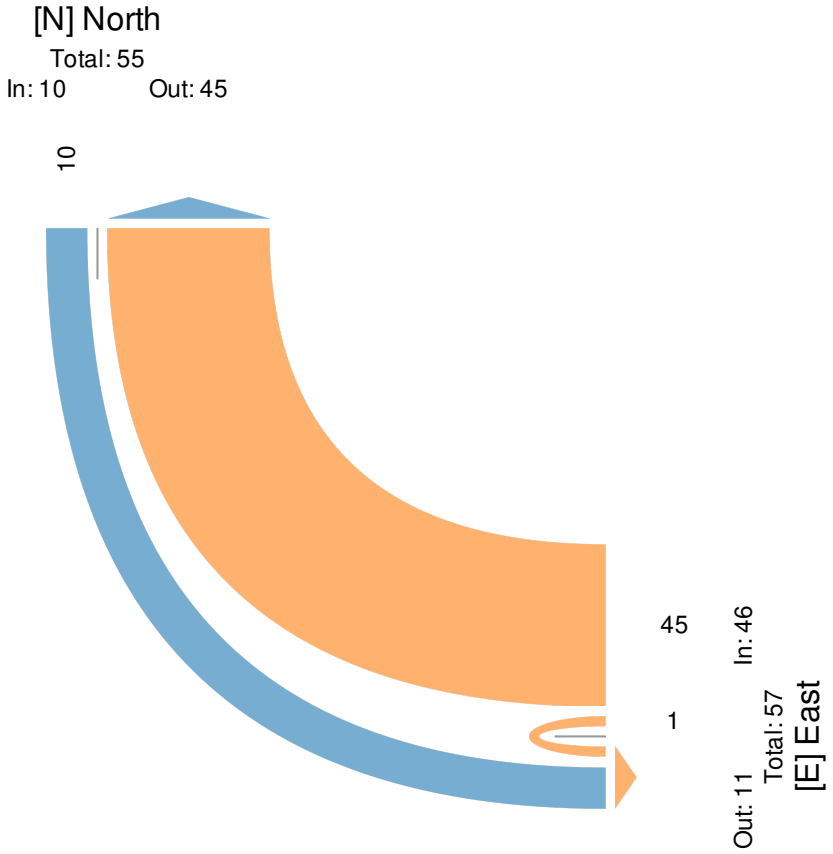
Leg / Direction	North Southbound					West Eastbound					East Westbound					
Time	L	R	U	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	**Int**
2019-10-16 6:00AM	0	0	0	**0**	0	0	0	0	**0**	0	0	7	0	**7**	0	**7**
6:15AM	3	0	0	**3**	0	0	0	0	**0**	0	0	11	1	**12**	0	**15**
6:30AM	2	0	0	**2**	0	0	0	0	**0**	0	0	11	0	**11**	0	**13**
6:45AM	5	0	0	**5**	0	0	0	0	**0**	0	0	16	0	**16**	0	**21**
Total	10	0	0	**10**	0	0	0	0	**0**	0	0	45	1	**46**	0	**56**
% Approach	100%	0%	0%	-	-	0%	0%	0%	-	-	0%	97.8%	2.2%	-	-	-
% Total	17.9%	0%	0%	**17.9%**	-	0%	0%	0%	**0%**	-	0%	80.4%	1.8%	**82.1%**	-	-
PHF	0.500	-	-	**0.500**	-	-	-	-	-	-	-	0.733	0.250	**0.750**	-	0.688
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	0%	0%	**0%**	-	0%
Lights	10	0	0	**10**	-	0	0	0	**0**	-	0	40	1	**41**	-	51
% Lights	100%	0%	0%	**100%**	-	0%	0%	0%	-	-	0%	88.9%	100%	**89.1%**	-	91.1%
Single-Unit Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	1	0	**1**	-	1
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	2.2%	0%	**2.2%**	-	1.8%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	3	0	**3**	-	3
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	6.7%	0%	**6.5%**	-	5.4%
Buses	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Buses	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	1	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	2.2%	0%	**2.2%**	-	1.8%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

Eton St and N Rosser - TMC
Wed Oct 16, 2019
AM Peak (6 AM - 7 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 710044, Location: 49.287365, -123.005756

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Eton St and N Rosser - TMC
Wed Oct 16, 2019
PM Peak (4:45 PM - 5:45 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 710044, Location: 49.287365, -123.005756

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

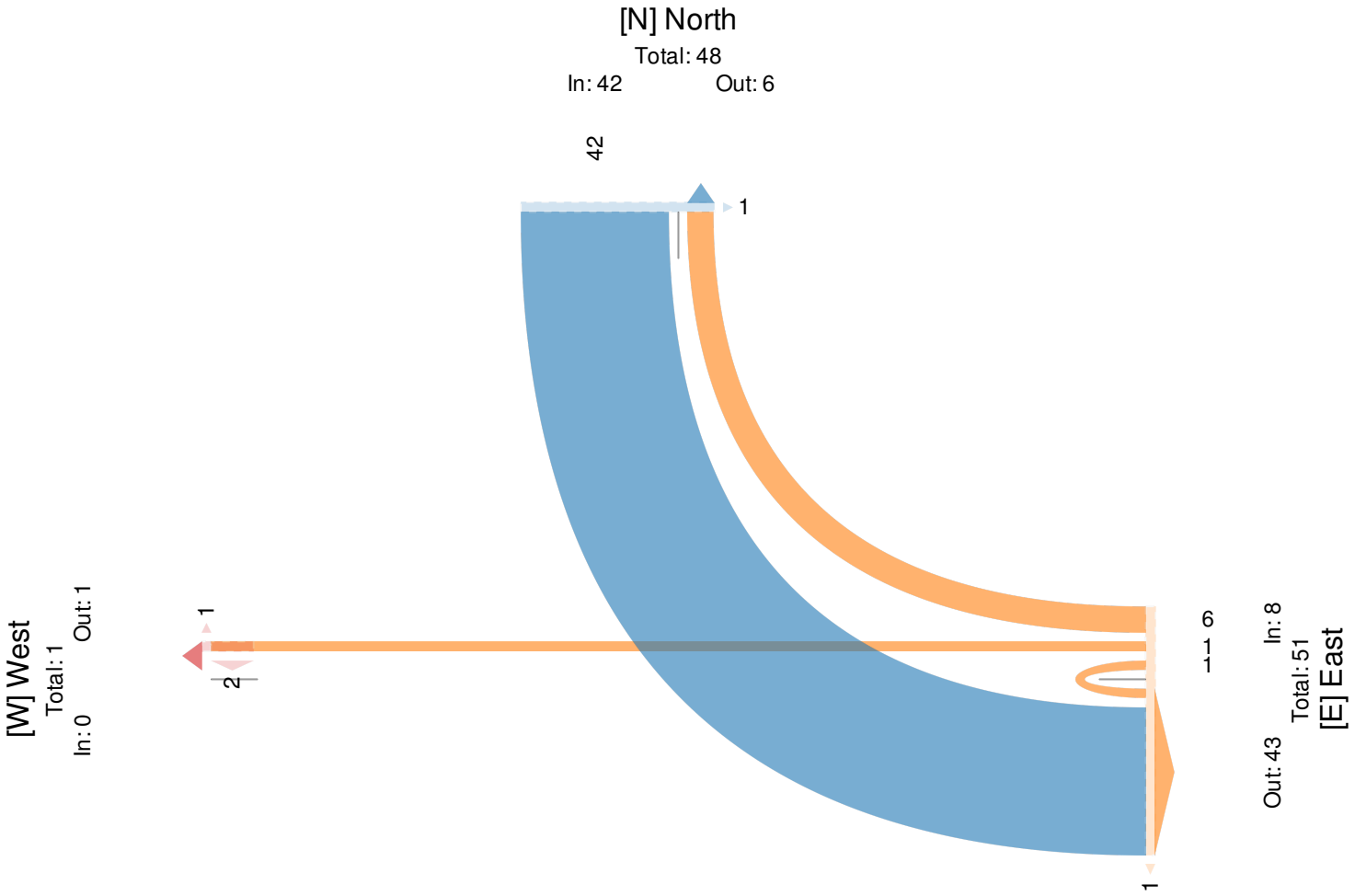
Leg	North					West					East					
Direction	Southbound					Eastbound					Westbound					
Time	L	R	U	**App**	Ped*	L	T	U	**App**	Ped*	T	R	U	**App**	Ped*	**Int**
2019-10-16 4:45PM	6	0	0	**6**	0	0	0	0	**0**	0	0	4	0	**4**	0	**10**
5:00PM	4	0	0	**4**	0	0	0	0	**0**	0	0	0	1	**1**	0	**5**
5:15PM	6	0	0	**6**	0	0	0	0	**0**	3	0	1	0	**1**	0	**7**
5:30PM	26	0	0	**26**	1	0	0	0	**0**	0	1	1	0	**2**	1	**28**
Total	42	0	0	**42**	1	0	0	0	**0**	3	1	6	1	**8**	1	**50**
% Approach	100%	0%	0%	-	-	0%	0%	0%	-	-	12.5%	75.0%	12.5%	-	-	-
% Total	84.0%	0%	0%	**84.0%**	-	0%	0%	0%	**0%**	-	2.0%	12.0%	2.0%	**16.0%**	-	-
PHF	0.410	-	-	**0.410**	-	-	-	-	-	-	-	0.375	0.250	**0.438**	-	0.462
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	0%	0%	**0%**	-	0%
Lights	39	0	0	**39**	-	0	0	0	**0**	-	0	2	1	**3**	-	42
% Lights	92.9%	0%	0%	**92.9%**	-	0%	0%	0%	-	-	0%	33.3%	100%	**37.5%**	-	84.0%
Single-Unit Trucks	1	0	0	**1**	-	0	0	0	**0**	-	0	1	0	**1**	-	2
% Single-Unit Trucks	2.4%	0%	0%	**2.4%**	-	0%	0%	0%	-	-	0%	16.7%	0%	**12.5%**	-	4.0%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	2	0	**2**	-	2
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	-	-	0%	33.3%	0%	**25.0%**	-	4.0%
Buses	1	0	0	**1**	-	0	0	0	**0**	-	0	1	0	**1**	-	2
% Buses	2.4%	0%	0%	**2.4%**	-	0%	0%	0%	-	-	0%	16.7%	0%	**12.5%**	-	4.0%
Bicycles on Road	1	0	0	**1**	-	0	0	0	**0**	-	1	0	0	**1**	-	2
% Bicycles on Road	2.4%	0%	0%	**2.4%**	-	0%	0%	0%	-	-	100%	0%	0%	**12.5%**	-	4.0%
Pedestrians	-	-	-	-	1	-	-	-	-	3	-	-	-	-	1	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-

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

Eton St and N Rosser - TMC
Wed Oct 16, 2019
PM Peak (4:45 PM - 5:45 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 710044, Location: 49.287365, -123.005756

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Willingdon Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707680, Location: 49.285533, -123.003021

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

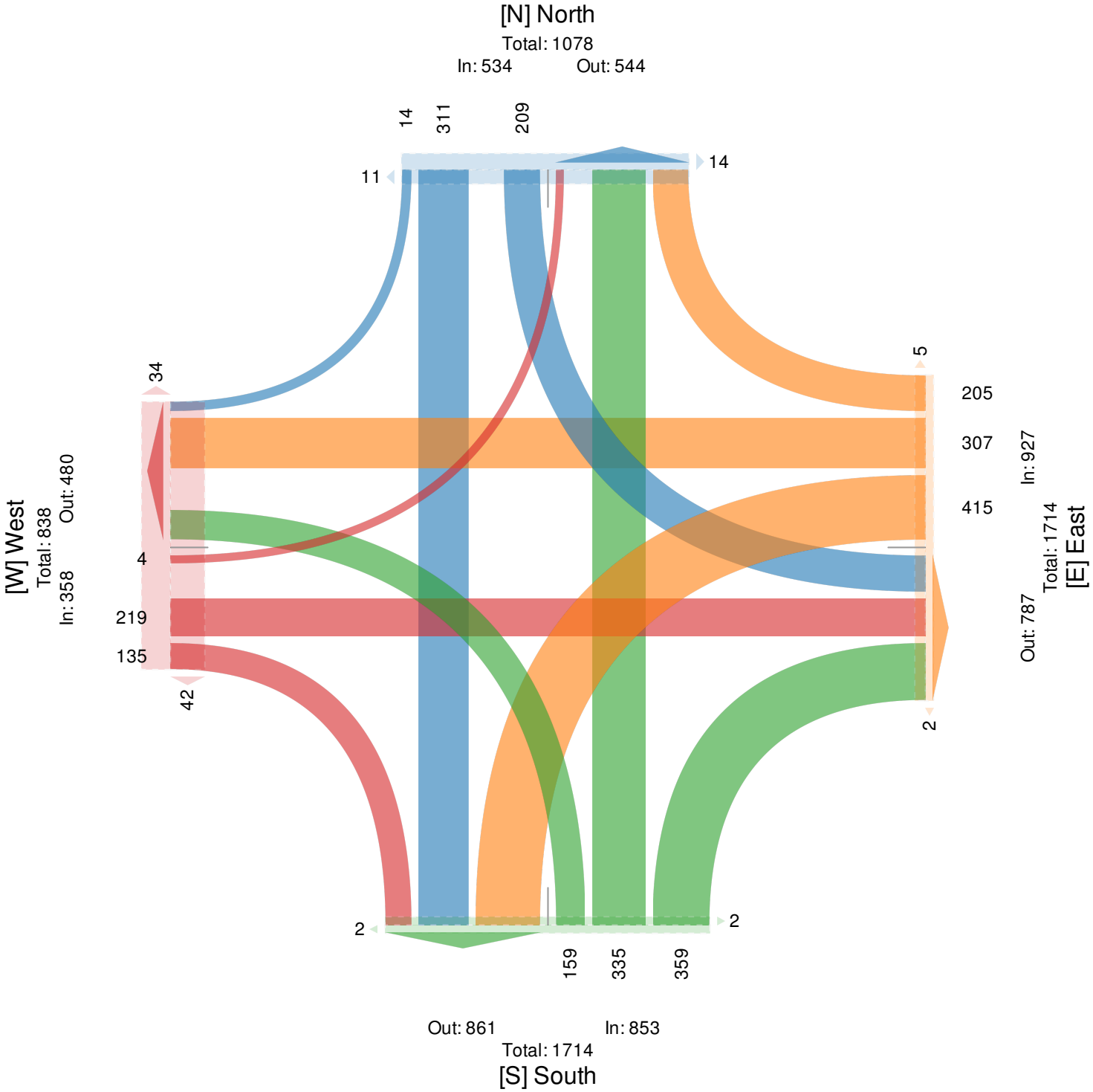
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 6:00AM	0	12	28	0	**40**	0	1	7	1	0	**9**	3	0	1	1	0	**2**	1	5	0	1	0	**6**	0	**57**
6:15AM	0	11	50	0	**61**	0	3	7	0	0	**10**	0	0	2	0	0	**2**	0	6	4	5	0	**15**	1	**88**
6:30AM	3	22	59	0	**84**	2	3	8	0	0	**11**	0	0	5	1	0	**6**	1	5	10	5	0	**20**	0	**121**
6:45AM	5	24	28	0	**57**	0	7	9	3	0	**19**	1	0	2	2	0	**4**	2	11	10	8	0	**29**	0	**109**
Hourly Total	8	69	165	0	**242**	2	14	31	4	0	**49**	4	0	10	4	0	**14**	4	27	24	19	0	**70**	1	**375**
7:00AM	6	21	23	0	**50**	0	0	8	0	0	**8**	0	0	0	0	0	**0**	2	2	16	10	0	**28**	0	**86**
7:15AM	5	21	14	0	**40**	0	6	13	0	0	**19**	1	0	2	1	0	**3**	2	3	13	13	0	**29**	0	**91**
7:30AM	12	16	22	0	**50**	0	8	7	0	0	**15**	1	0	1	2	0	**3**	3	6	25	14	0	**45**	0	**113**
7:45AM	10	9	9	0	**28**	0	7	9	0	0	**16**	0	1	1	1	0	**3**	6	7	31	18	0	**56**	0	**103**
Hourly Total	33	67	68	0	**168**	0	21	37	0	0	**58**	2	1	4	4	0	**9**	13	18	85	55	0	**158**	0	**393**
8:00AM	8	13	5	0	**26**	0	6	12	0	0	**18**	0	1	1	4	0	**6**	4	10	26	12	0	**48**	1	**98**
8:15AM	12	7	5	0	**24**	0	9	11	0	0	**20**	2	1	1	5	0	**7**	6	8	25	14	0	**47**	0	**98**
8:30AM	19	13	4	0	**36**	0	8	14	0	0	**22**	1	0	4	7	0	**11**	3	4	30	16	0	**50**	0	**119**
8:45AM	8	16	6	0	**30**	0	6	10	1	0	**17**	1	0	3	2	0	**5**	0	5	37	16	0	**58**	0	**110**
Hourly Total	47	49	20	0	**116**	0	29	47	1	0	**77**	4	2	9	18	0	**29**	13	27	118	58	0	**203**	1	**425**
4:00PM	5	15	8	0	**28**	0	15	17	1	0	**33**	0	0	20	5	0	**25**	3	12	8	9	0	**29**	0	**115**
4:15PM	3	15	7	0	**25**	2	25	13	1	0	**39**	1	0	28	17	0	**45**	4	27	4	5	0	**36**	0	**145**
4:30PM	5	16	5	0	**26**	0	14	14	0	0	**28**	1	0	26	9	0	**35**	7	24	10	4	0	**38**	1	**127**
4:45PM	5	9	7	0	**21**	0	20	21	0	0	**41**	1	1	26	12	0	**39**	7	17	3	6	0	**26**	2	**127**
Hourly Total	18	55	27	0	**100**	2	74	65	2	0	**141**	3	1	100	43	0	**144**	21	80	25	24	0	**129**	3	**514**
5:00PM	6	10	9	0	**25**	0	12	27	3	0	**42**	5	0	20	12	0	**32**	6	33	10	13	0	**56**	0	**155**
5:15PM	10	10	10	0	**30**	0	11	24	0	0	**35**	0	0	20	9	0	**29**	2	39	3	5	0	**47**	1	**141**
5:30PM	8	16	11	0	**35**	0	13	31	2	0	**46**	1	0	16	5	0	**21**	0	93	26	11	0	**130**	1	**232**
5:45PM	6	15	11	0	**32**	0	12	8	0	0	**20**	1	0	13	6	0	**19**	2	35	7	11	0	**53**	0	**124**
Hourly Total	30	51	41	0	**122**	0	48	90	5	0	**143**	7	0	69	32	0	**101**	10	200	46	40	0	**286**	2	**652**
6:00PM	5	7	13	0	**25**	0	11	15	1	0	**27**	4	0	11	9	0	**20**	6	15	4	3	0	**22**	0	**94**
6:15PM	7	6	5	0	**18**	0	5	8	0	0	**13**	0	0	9	7	0	**16**	2	23	3	2	0	**28**	0	**75**
6:30PM	6	19	14	0	**39**	0	6	12	1	0	**19**	1	0	5	13	0	**18**	2	15	2	3	0	**20**	0	**96**
6:45PM	5	12	6	0	**23**	0	1	6	0	0	**7**	0	0	2	5	0	**7**	5	10	0	1	0	**11**	0	**48**
Hourly Total	23	44	38	0	**105**	0	23	41	2	0	**66**	5	0	27	34	0	**61**	15	63	9	9	0	**81**	0	**313**
Total	159	335	359	0	**853**	4	209	311	14	0	**534**	25	4	219	135	0	**358**	76	415	307	205	0	**927**	7	**2672**
% Approach	18.6%	39.3%	42.1%	0%	**-**	-	39.1%	58.2%	2.6%	0%	**-**	-	1.1%	61.2%	37.7%	0%	**-**	-	44.8%	33.1%	22.1%	0%	**-**	-	-
% Total	6.0%	12.5%	13.4%	0%	**31.9%**	-	7.8%	11.6%	0.5%	0%	**20.0%**	-	0.1%	8.2%	5.1%	0%	**13.4%**	-	15.5%	11.5%	7.7%	0%	**34.7%**	-	-
Motorcycles	0	3	2	0	**5**	-	0	2	0	0	**2**	-	0	2	0	0	**2**	-	3	1	0	0	**4**	-	13
% Motorcycles	0%	0.9%	0.6%	0%	**0.6%**	-	0%	0.6%	0%	0%	**0.4%**	-	0%	0.9%	0%	0%	**0.6%**	-	0.7%	0.3%	0%	0%	**0.4%**	-	0.5%
Lights	154	263	326	0	**743**	-	191	260	12	0	**463**	-	4	213	130	0	**347**	-	392	303	185	0	**880**	-	2433
% Lights	96.9%	78.5%	90.8%	0%	**87.1%**	-	91.4%	83.6%	85.7%	0%	**86.7%**	-	100%	97.3%	96.3%	0%	**96.9%**	-	94.5%	98.7%	90.2%	0%	**94.9%**	-	91.1%
Single-Unit Trucks	4	23	8	0	**35**	-	5	13	0	0	**18**	-	0	1	4	0	**5**	-	6	2	7	0	**15**	-	73
% Single-Unit Trucks	2.5%	6.9%	2.2%	0%	**4.1%**	-	2.4%	4.2%	0%	0%	**3.4%**	-	0%	0.5%	3.0%	0%	**1.4%**	-	1.4%	0.7%	3.4%	0%	**1.6%**	-	2.7%
Articulated Trucks	0	25	6	0	**31**	-	1	20	0	0	**21**	-	0	0	0	0	**0**	-	2	0	0	0	**2**	-	54
% Articulated Trucks	0%	7.5%	1.7%	0%	**3.6%**	-	0.5%	6.4%	0%	0%	**3.9%**	-	0%	0%	0%	0%	**0%**	-	0.5%	0%	0%	0%	**0.2%**	-	2.0%
Buses	0	11	16	0	**27**	-	11	13	0	0	**24**	-	0	0	1	0	**1**	-	12	0	12	0	**24**	-	76
% Buses	0%	3.3%	4.5%	0%	**3.2%**	-	5.3%	4.2%	0%	0%	**4.5%**	-	0%	0%	0.7%	0%	**0.3%**	-	2.9%	0%	5.9%	0%	**2.6%**	-	2.8%
Bicycles on Road	1	10	1	0	**12**	-	1	3	2	0	**6**	-	0	3	0	0	**3**	-	0	1	1	0	**2**	-	23
% Bicycles on Road	0.6%	3.0%	0.3%	0%	**1.4%**	-	0.5%	1.0%	14.3%	0%	**1.1%**	-	0%	1.4%	0%	0%	**0.8%**	-	0%	0.3%	0.5%	0%	**0.2%**	-	0.9%
Pedestrians	-	-	-	-	-	4	-	-	-	-	-	21	-	-	-	-	-	76	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	84.0%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	16.0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Willingdon Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707680, Location: 49.285533, -123.003021

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Willingdon Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707680, Location: 49.285533, -123.003021

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

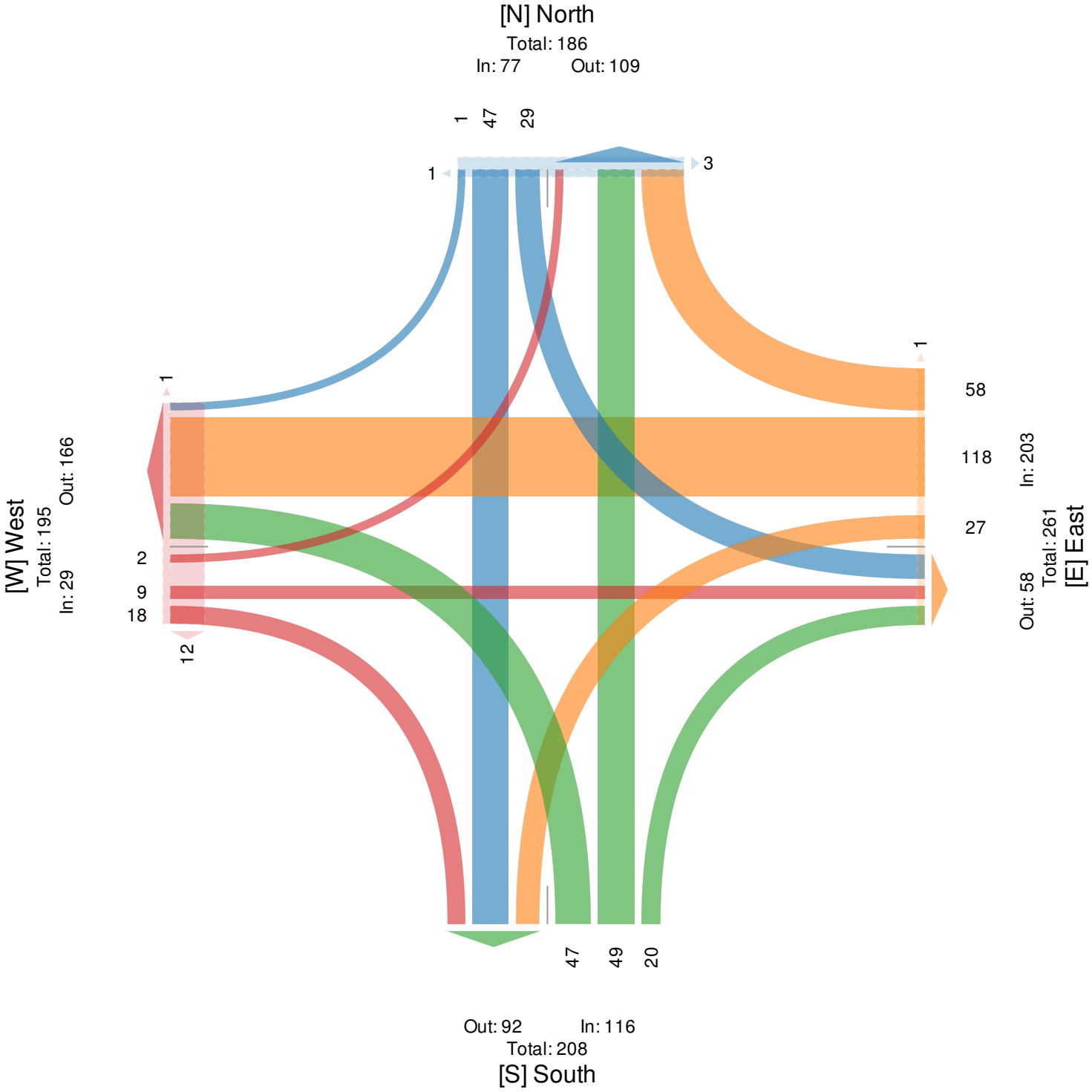
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 8:00AM	8	13	5	0	**26**	0	6	12	0	0	**18**	0	1	1	4	0	**6**	4	10	26	12	0	**48**	1	**98**
8:15AM	12	7	5	0	**24**	0	9	11	0	0	**20**	2	1	1	5	0	**7**	6	8	25	14	0	**47**	0	**98**
8:30AM	19	13	4	0	**36**	0	8	14	0	0	**22**	1	0	4	7	0	**11**	3	4	30	16	0	**50**	0	**119**
8:45AM	8	16	6	0	**30**	0	6	10	1	0	**17**	1	0	3	2	0	**5**	0	5	37	16	0	**58**	0	**110**
Total	47	49	20	0	**116**	0	29	47	1	0	**77**	4	2	9	18	0	**29**	13	27	118	58	0	**203**	1	**425**
% Approach	40.5%	42.2%	17.2%	0%	**-**	-	37.7%	61.0%	1.3%	0%	**-**	-	6.9%	31.0%	62.1%	0%	**-**	-	13.3%	58.1%	28.6%	0%	**-**	-	-
% Total	11.1%	11.5%	4.7%	0%	**27.3%**	-	6.8%	11.1%	0.2%	0%	**18.1%**	-	0.5%	2.1%	4.2%	0%	**6.8%**	-	6.4%	27.8%	13.6%	0%	**47.8%**	-	-
PHF	0.618	0.766	0.833	-	**0.806**	-	0.806	0.839	0.250	-	**0.875**	-	0.500	0.563	0.643	-	**0.659**	-	0.675	0.797	0.906	-	**0.875**	-	0.893
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Lights	46	34	15	0	**95**	-	26	40	1	0	**67**	-	2	9	16	0	**27**	-	26	117	54	0	**197**	-	386
% Lights	97.9%	69.4%	75.0%	0%	**81.9%**	-	89.7%	85.1%	100%	0%	**87.0%**	-	100%	100%	88.9%	0%	**93.1%**	-	96.3%	99.2%	93.1%	0%	**97.0%**	-	90.8%
Single-Unit Trucks	1	6	2	0	**9**	-	0	2	0	0	**2**	-	0	0	1	0	**1**	-	1	1	2	0	**4**	-	16
% Single-Unit Trucks	2.1%	12.2%	10.0%	0%	**7.8%**	-	0%	4.3%	0%	0%	**2.6%**	-	0%	0%	5.6%	0%	**3.4%**	-	3.7%	0.8%	3.4%	0%	**2.0%**	-	3.8%
Articulated Trucks	0	7	3	0	**10**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	13
% Articulated Trucks	0%	14.3%	15.0%	0%	**8.6%**	-	0%	6.4%	0%	0%	**3.9%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	3.1%
Buses	0	2	0	0	**2**	-	3	2	0	0	**5**	-	0	0	1	0	**1**	-	0	0	2	0	**2**	-	10
% Buses	0%	4.1%	0%	0%	**1.7%**	-	10.3%	4.3%	0%	0%	**6.5%**	-	0%	0%	5.6%	0%	**3.4%**	-	0%	0%	3.4%	0%	**1.0%**	-	2.4%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	13	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	75.0%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	25.0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Willingdon Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707680, Location: 49.285533, -123.003021

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Willingdon Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707680, Location: 49.285533, -123.003021

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

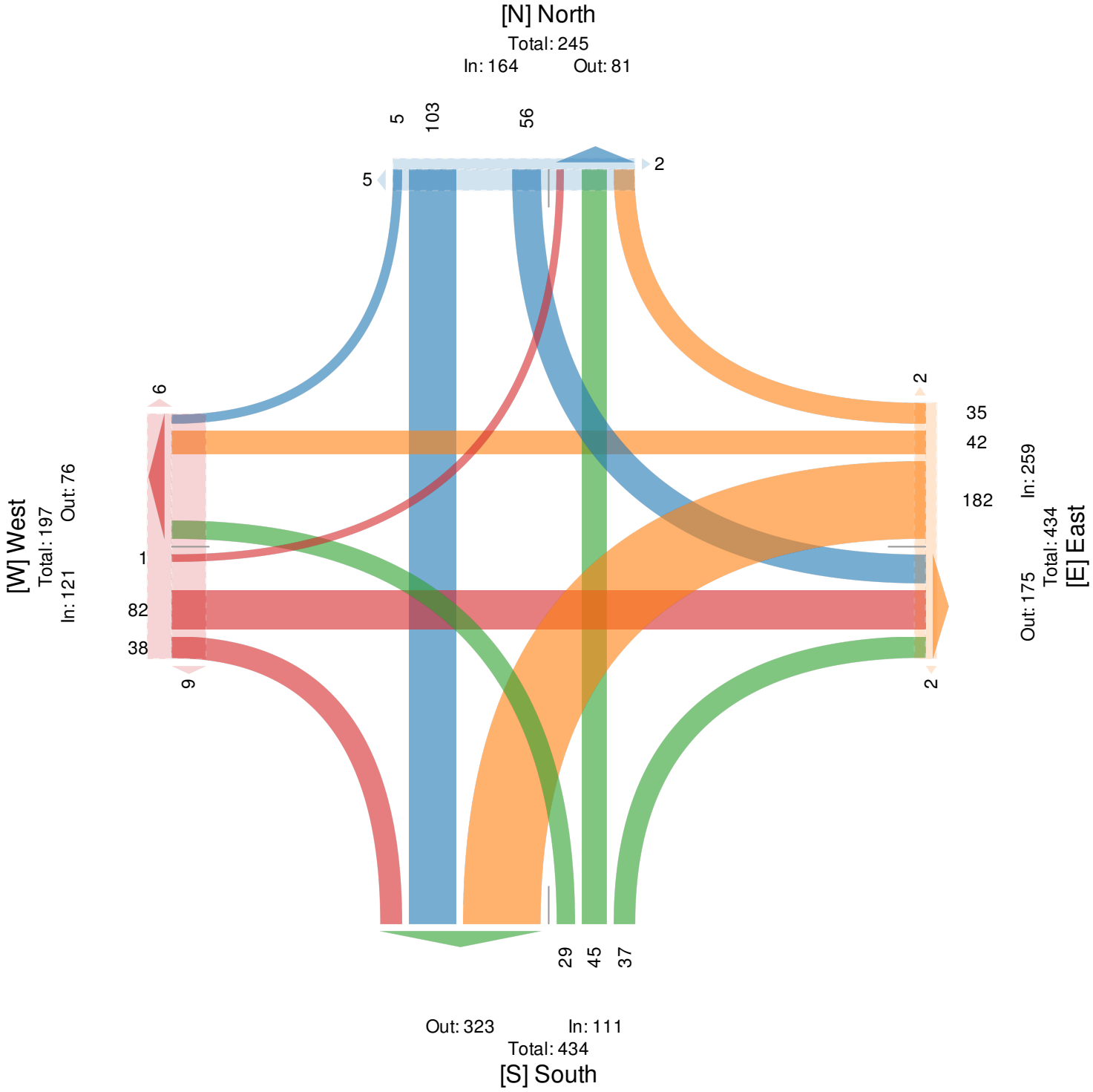
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 4:45PM	5	9	7	0	**21**	0	20	21	0	0	**41**	1	1	26	12	0	**39**	7	17	3	6	0	**26**	2	**127**
5:00PM	6	10	9	0	**25**	0	12	27	3	0	**42**	5	0	20	12	0	**32**	6	33	10	13	0	**56**	0	**155**
5:15PM	10	10	10	0	**30**	0	11	24	0	0	**35**	0	0	20	9	0	**29**	2	39	3	5	0	**47**	1	**141**
5:30PM	8	16	11	0	**35**	0	13	31	2	0	**46**	1	0	16	5	0	**21**	0	93	26	11	0	**130**	1	**232**
Total	29	45	37	0	**111**	0	56	103	5	0	**164**	7	1	82	38	0	**121**	15	182	42	35	0	**259**	4	**655**
% Approach	26.1%	40.5%	33.3%	0%	**-**	-	34.1%	62.8%	3.0%	0%	**-**	-	0.8%	67.8%	31.4%	0%	**-**	-	70.3%	16.2%	13.5%	0%	**-**	-	**-**
% Total	4.4%	6.9%	5.6%	0%	**16.9%**	-	8.5%	15.7%	0.8%	0%	**25.0%**	-	0.2%	12.5%	5.8%	0%	**18.5%**	-	27.8%	6.4%	5.3%	0%	**39.5%**	-	**-**
PHF	0.725	0.672	0.841	-	**0.779**	-	0.700	0.833	0.417	-	**0.894**	-	0.250	0.779	0.792	-	**0.769**	-	0.489	0.394	0.673	-	**0.496**	-	0.701
Motorcycles	0	0	1	0	**1**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	2	1	0	0	**3**	-	6
% Motorcycles	0%	0%	2.7%	0%	**0.9%**	-	0%	1.0%	0%	0%	**0.6%**	-	0%	1.2%	0%	0%	**0.8%**	-	1.1%	2.4%	0%	0%	**1.2%**	-	0.9%
Lights	29	39	29	0	**97**	-	49	95	5	0	**149**	-	1	79	38	0	**118**	-	175	40	31	0	**246**	-	610
% Lights	100%	86.7%	78.4%	0%	**87.4%**	-	87.5%	92.2%	100%	0%	**90.9%**	-	100%	96.3%	100%	0%	**97.5%**	-	96.2%	95.2%	88.6%	0%	**95.0%**	-	93.1%
Single-Unit Trucks	0	0	1	0	**1**	-	2	0	0	0	**2**	-	0	1	0	0	**1**	-	1	0	1	0	**2**	-	6
% Single-Unit Trucks	0%	0%	2.7%	0%	**0.9%**	-	3.6%	0%	0%	0%	**1.2%**	-	0%	1.2%	0%	0%	**0.8%**	-	0.5%	0%	2.9%	0%	**0.8%**	-	0.9%
Articulated Trucks	0	2	3	0	**5**	-	1	2	0	0	**3**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	8
% Articulated Trucks	0%	4.4%	8.1%	0%	**4.5%**	-	1.8%	1.9%	0%	0%	**1.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.2%
Buses	0	2	3	0	**5**	-	4	2	0	0	**6**	-	0	0	0	0	**0**	-	4	0	3	0	**7**	-	18
% Buses	0%	4.4%	8.1%	0%	**4.5%**	-	7.1%	1.9%	0%	0%	**3.7%**	-	0%	0%	0%	0%	**0%**	-	2.2%	0%	8.6%	0%	**2.7%**	-	2.7%
Bicycles on Road	0	2	0	0	**2**	-	0	3	0	0	**3**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	7
% Bicycles on Road	0%	4.4%	0%	0%	**1.8%**	-	0%	2.9%	0%	0%	**1.8%**	-	0%	1.2%	0%	0%	**0.8%**	-	0%	2.4%	0%	0%	**0.4%**	-	1.1%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	15	-	-	-	-	-	4	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	85.7%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	14.3%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Willingdon Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707680, Location: 49.285533, -123.003021

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Willingdon Ave and Albert St. - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706444, Location: 49.2819, -123.003133

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

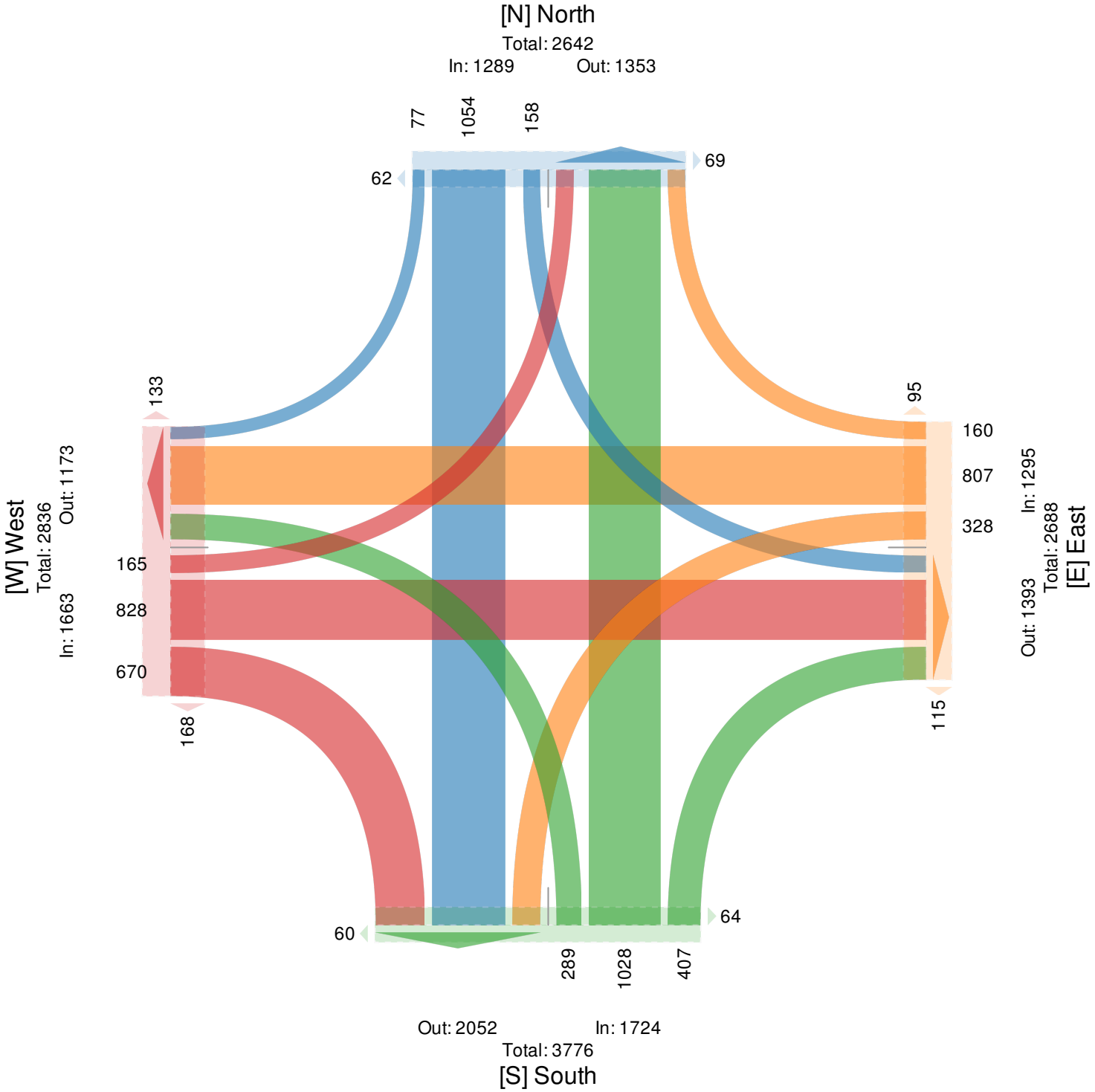
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 6:00AM	1	63	4	0	**68**	3	2	11	0	0	**13**	3	10	9	9	0	**28**	5	1	7	1	0	**9**	4	**118**
6:15AM	3	68	2	0	**73**	3	1	16	1	0	**18**	1	7	2	6	0	**15**	4	5	16	4	0	**25**	1	**131**
6:30AM	9	80	2	0	**91**	2	2	23	2	0	**27**	2	8	2	7	0	**17**	3	7	24	11	0	**42**	1	**177**
6:45AM	6	56	5	0	**67**	2	1	24	0	0	**25**	4	7	3	10	0	**20**	8	6	16	7	0	**29**	1	**141**
Hourly Total	19	267	13	0	**299**	10	6	74	3	0	**83**	10	32	16	32	0	**80**	20	19	63	23	0	**105**	7	**567**
7:00AM	8	44	3	0	**55**	4	1	25	2	0	**28**	3	2	8	15	0	**25**	5	14	38	6	0	**58**	5	**166**
7:15AM	12	43	5	0	**60**	1	2	18	5	0	**25**	0	6	6	22	0	**34**	9	15	67	12	0	**94**	3	**213**
7:30AM	23	45	4	0	**72**	2	1	23	2	0	**26**	6	6	5	24	0	**35**	14	14	77	13	0	**104**	4	**237**
7:45AM	20	26	13	0	**59**	3	3	33	5	0	**41**	2	5	6	28	0	**39**	16	22	57	8	0	**87**	3	**226**
Hourly Total	63	158	25	0	**246**	10	7	99	14	0	**120**	11	19	25	89	0	**133**	44	65	239	39	0	**343**	15	**842**
8:00AM	21	31	14	0	**66**	4	1	37	6	0	**44**	4	5	9	32	0	**46**	12	26	61	13	0	**100**	4	**256**
8:15AM	20	23	11	0	**54**	7	7	33	2	0	**42**	9	4	20	32	0	**56**	16	15	64	6	0	**85**	5	**237**
8:30AM	19	43	19	0	**81**	7	6	41	1	0	**48**	6	5	19	33	0	**57**	10	18	84	9	0	**111**	16	**297**
8:45AM	16	39	18	0	**73**	6	6	31	5	0	**42**	2	6	35	38	0	**79**	15	26	68	10	0	**104**	2	**298**
Hourly Total	76	136	62	0	**274**	24	20	142	14	0	**176**	21	20	83	135	0	**238**	53	85	277	38	0	**400**	27	**1088**
4:00PM	7	40	26	0	**73**	2	12	59	3	0	**74**	12	4	70	49	0	**123**	19	9	12	2	0	**23**	10	**293**
4:15PM	10	40	25	0	**75**	7	12	41	4	0	**57**	6	9	63	43	0	**115**	12	11	15	4	0	**30**	18	**277**
4:30PM	11	20	20	0	**51**	2	5	44	5	0	**54**	8	11	82	48	0	**141**	14	11	21	4	0	**36**	8	**282**
4:45PM	11	36	25	0	**72**	6	12	75	2	0	**89**	5	6	71	47	0	**124**	19	11	28	5	0	**44**	8	**329**
Hourly Total	39	136	96	0	**271**	17	41	219	14	0	**274**	31	30	286	187	0	**503**	64	42	76	15	0	**133**	44	**1181**
5:00PM	14	43	20	0	**77**	4	20	76	6	0	**102**	9	6	61	31	0	**98**	18	15	23	4	0	**42**	9	**319**
5:15PM	15	37	25	0	**77**	14	19	83	1	0	**103**	5	7	68	30	0	**105**	13	9	20	5	0	**34**	15	**319**
5:30PM	10	46	23	0	**79**	1	12	91	5	0	**108**	15	11	70	31	0	**112**	10	13	16	5	0	**34**	15	**333**
5:45PM	10	41	30	0	**81**	7	11	78	3	0	**92**	6	7	62	26	0	**95**	17	17	27	7	0	**51**	17	**319**
Hourly Total	49	167	98	0	**314**	26	62	328	15	0	**405**	35	31	261	118	0	**410**	58	54	86	21	0	**161**	56	**1290**
6:00PM	8	43	25	0	**76**	10	6	41	8	0	**55**	2	10	60	39	0	**109**	12	21	25	5	0	**51**	4	**291**
6:15PM	9	37	18	0	**64**	6	6	49	3	0	**58**	6	9	35	19	0	**63**	17	14	17	6	0	**37**	11	**222**
6:30PM	12	43	34	0	**89**	15	6	58	1	0	**65**	10	6	35	31	0	**72**	23	10	18	6	0	**34**	36	**260**
6:45PM	14	41	36	0	**91**	6	4	44	5	0	**53**	5	8	27	20	0	**55**	10	18	6	7	0	**31**	10	**230**
Hourly Total	43	164	113	0	**320**	37	22	192	17	0	**231**	23	33	157	109	0	**299**	62	63	66	24	0	**153**	61	**1003**
Total	289	1028	407	0	**1724**	124	158	1054	77	0	**1289**	131	165	828	670	0	**1663**	301	328	807	160	0	**1295**	210	**5971**
% Approach	16.8%	59.6%	23.6%	0%	**-**	-	12.3%	81.8%	6.0%	0%	**-**	-	9.9%	49.8%	40.3%	0%	**-**	-	25.3%	62.3%	12.4%	0%	**-**	-	-
% Total	4.8%	17.2%	6.8%	0%	**28.9%**	-	2.6%	17.7%	1.3%	0%	**21.6%**	-	2.8%	13.9%	11.2%	0%	**27.9%**	-	5.5%	13.5%	2.7%	0%	**21.7%**	-	-
Motorcycles	0	1	0	0	**1**	-	1	5	0	0	**6**	-	0	1	0	0	**1**	-	0	0	1	0	**1**	-	9
% Motorcycles	0%	0.1%	0%	0%	**0.1%**	-	0.6%	0.5%	0%	0%	**0.5%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0.6%	0%	**0.1%**	-	0.2%
Lights	285	930	403	0	**1618**	-	154	963	76	0	**1193**	-	162	823	660	0	**1645**	-	325	801	154	0	**1280**	-	5736
% Lights	98.6%	90.5%	99.0%	0%	**93.9%**	-	97.5%	91.4%	98.7%	0%	**92.6%**	-	98.2%	99.4%	98.5%	0%	**98.9%**	-	99.1%	99.3%	96.3%	0%	**98.8%**	-	96.1%
Single-Unit Trucks	3	38	3	0	**44**	-	2	27	0	0	**29**	-	1	2	4	0	**7**	-	1	2	2	0	**5**	-	85
% Single-Unit Trucks	1.0%	3.7%	0.7%	0%	**2.6%**	-	1.3%	2.6%	0%	0%	**2.2%**	-	0.6%	0.2%	0.6%	0%	**0.4%**	-	0.3%	0.2%	1.3%	0%	**0.4%**	-	1.4%
Articulated Trucks	0	34	0	0	**34**	-	0	31	0	0	**31**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	65
% Articulated Trucks	0%	3.3%	0%	0%	**2.0%**	-	0%	2.9%	0%	0%	**2.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.1%
Buses	1	24	1	0	**26**	-	1	24	0	0	**25**	-	1	0	4	0	**5**	-	2	2	0	0	**4**	-	60
% Buses	0.3%	2.3%	0.2%	0%	**1.5%**	-	0.6%	2.3%	0%	0%	**1.9%**	-	0.6%	0%	0.6%	0%	**0.3%**	-	0.6%	0.2%	0%	0%	**0.3%**	-	1.0%
Bicycles on Road	0	1	0	0	**1**	-	0	4	1	0	**5**	-	1	2	2	0	**5**	-	0	2	3	0	**5**	-	16
% Bicycles on Road	0%	0.1%	0%	0%	**0.1%**	-	0%	0.4%	1.3%	0%	**0.4%**	-	0.6%	0.2%	0.3%	0%	**0.3%**	-	0%	0.2%	1.9%	0%	**0.4%**	-	0.3%
Pedestrians	-	-	-	-	-	121	-	-	-	-	-	128	-	-	-	-	-	297	-	-	-	-	-	184	
% Pedestrians	-	-	-	-	-	97.6%	-	-	-	-	-	97.7%	-	-	-	-	-	98.7%	-	-	-	-	-	87.6%	-
Bicycles on Crosswalk	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	26	
% Bicycles on Crosswalk	-	-	-	-	-	2.4%	-	-	-	-	-	2.3%	-	-	-	-	-	1.3%	-	-	-	-	-	12.4%	-

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

Willingdon Ave and Albert St. - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706444, Location: 49.2819, -123.003133

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Willingdon Ave and Albert St. - TMC
Tue Oct 8, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706444, Location: 49.2819, -123.003133

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

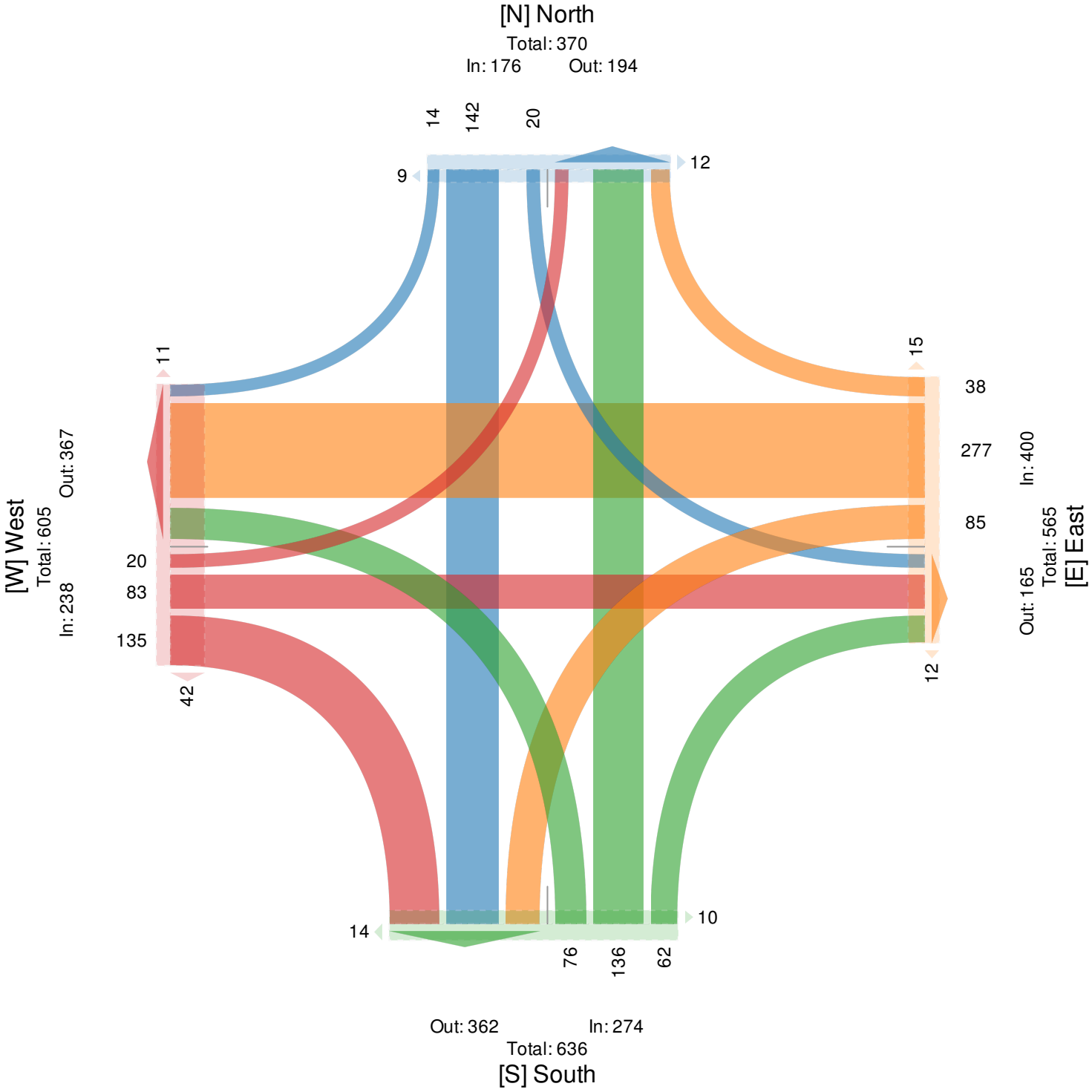
Leg / Direction	South Northbound						North Southbound						West Eastbound						East Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 8:00AM	21	31	14	0	**66**	4	1	37	6	0	**44**	4	5	9	32	0	**46**	12	26	61	13	0	**100**	4	**256**
8:15AM	20	23	11	0	**54**	7	7	33	2	0	**42**	9	4	20	32	0	**56**	16	15	64	6	0	**85**	5	**237**
8:30AM	19	43	19	0	**81**	7	6	41	1	0	**48**	6	5	19	33	0	**57**	10	18	84	9	0	**111**	16	**297**
8:45AM	16	39	18	0	**73**	6	6	31	5	0	**42**	2	6	35	38	0	**79**	15	26	68	10	0	**104**	2	**298**
Total	76	136	62	0	**274**	24	20	142	14	0	**176**	21	20	83	135	0	**238**	53	85	277	38	0	**400**	27	**1088**
% Approach	27.7%	49.6%	22.6%	0%	-	-	11.4%	80.7%	8.0%	0%	-	-	8.4%	34.9%	56.7%	0%	-	-	21.3%	69.3%	9.5%	0%	-	-	-
% Total	7.0%	12.5%	5.7%	0%	**25.2%**	-	1.8%	13.1%	1.3%	0%	**16.2%**	-	1.8%	7.6%	12.4%	0%	**21.9%**	-	7.8%	25.5%	3.5%	0%	**36.8%**	-	-
PHF	0.905	0.791	0.816	-	**0.846**	-	0.714	0.866	0.542	-	**0.931**	-	0.833	0.593	0.882	-	**0.750**	-	0.817	0.821	0.771	-	**0.896**	-	0.912
Motorcycles	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	3
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	1.4%	0%	0%	**1.1%**	-	0%	1.2%	0%	0%	**0.4%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Lights	74	119	60	0	**253**	-	19	119	13	0	**151**	-	20	81	132	0	**233**	-	83	274	37	0	**394**	-	1031
% Lights	97.4%	87.5%	96.8%	0%	**92.3%**	-	95.0%	83.8%	92.9%	0%	**85.8%**	-	100%	97.6%	97.8%	0%	**97.9%**	-	97.6%	98.9%	97.4%	0%	**98.5%**	-	94.8%
Single-Unit Trucks	1	5	1	0	**7**	-	0	10	0	0	**10**	-	0	1	1	0	**2**	-	1	2	0	0	**3**	-	22
% Single-Unit Trucks	1.3%	3.7%	1.6%	0%	**2.6%**	-	0%	7.0%	0%	0%	**5.7%**	-	0%	1.2%	0.7%	0%	**0.8%**	-	1.2%	0.7%	0%	0%	**0.8%**	-	2.0%
Articulated Trucks	0	10	0	0	**10**	-	0	9	0	0	**9**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	19
% Articulated Trucks	0%	7.4%	0%	0%	**3.6%**	-	0%	6.3%	0%	0%	**5.1%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	1.7%
Buses	1	2	1	0	**4**	-	1	2	0	0	**3**	-	0	0	1	0	**1**	-	1	0	0	0	**1**	-	9
% Buses	1.3%	1.5%	1.6%	0%	**1.5%**	-	5.0%	1.4%	0%	0%	**1.7%**	-	0%	0%	0.7%	0%	**0.4%**	-	1.2%	0%	0%	0%	**0.3%**	-	0.8%
Bicycles on Road	0	0	0	0	**0**	-	0	0	1	0	**1**	-	0	0	1	0	**1**	-	0	1	1	0	**2**	-	4
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	7.1%	0%	**0.6%**	-	0%	0%	0.7%	0%	**0.4%**	-	0%	0.4%	2.6%	0%	**0.5%**	-	0.4%
Pedestrians	-	-	-	-	-	24	-	-	-	-	-	19	-	-	-	-	-	53	-	-	-	-	-	23	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	90.5%	-	-	-	-	-	100%	-	-	-	-	-	85.2%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	4	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	9.5%	-	-	-	-	-	0%	-	-	-	-	-	14.8%	-

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

Willingdon Ave and Albert St. - TMC
Tue Oct 8, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706444, Location: 49.2819, -123.003133

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Willingdon Ave and Albert St. - TMC
Tue Oct 8, 2019
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706444, Location: 49.2819, -123.003133

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

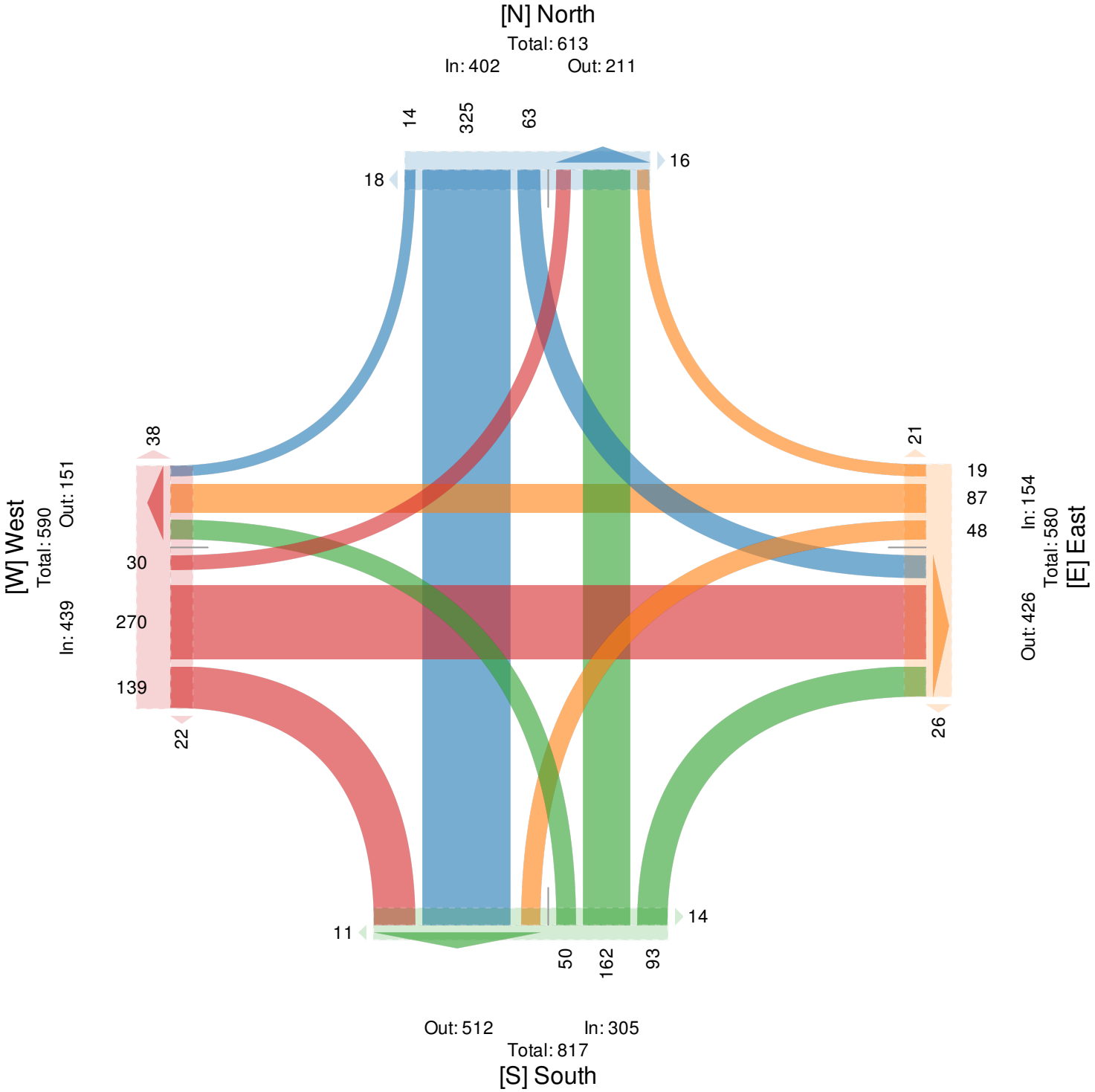
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 4:45PM	11	36	25	0	**72**	6	12	75	2	0	**89**	5	6	71	47	0	**124**	19	11	28	5	0	**44**	8	**329**
5:00PM	14	43	20	0	**77**	4	20	76	6	0	**102**	9	6	61	31	0	**98**	18	15	23	4	0	**42**	9	**319**
5:15PM	15	37	25	0	**77**	14	19	83	1	0	**103**	5	7	68	30	0	**105**	13	9	20	5	0	**34**	15	**319**
5:30PM	10	46	23	0	**79**	1	12	91	5	0	**108**	15	11	70	31	0	**112**	10	13	16	5	0	**34**	15	**333**
Total	50	162	93	0	**305**	25	63	325	14	0	**402**	34	30	270	139	0	**439**	60	48	87	19	0	**154**	47	**1300**
% Approach	16.4%	53.1%	30.5%	0%	**-**	-	15.7%	80.8%	3.5%	0%	**-**	-	6.8%	61.5%	31.7%	0%	**-**	-	31.2%	56.5%	12.3%	0%	**-**	-	**-**
% Total	3.8%	12.5%	7.2%	0%	**23.5%**	-	4.8%	25.0%	1.1%	0%	**30.9%**	-	2.3%	20.8%	10.7%	0%	**33.8%**	-	3.7%	6.7%	1.5%	0%	**11.8%**	-	-
PHF	0.833	0.880	0.930	-	**0.965**	-	0.788	0.897	0.583	-	**0.935**	-	0.682	0.961	0.739	-	**0.890**	-	0.800	0.768	0.950	-	**0.869**	-	0.976
Motorcycles	0	0	0	0	**0**	-	1	2	0	0	**3**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	3
% Motorcycles	0%	0%	0%	0%	**0%**	-	1.6%	0.6%	0%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.2%
Lights	49	154	93	0	**296**	-	61	309	14	0	**384**	-	30	269	138	0	**437**	-	48	86	19	0	**153**	-	1270
% Lights	98.0%	95.1%	100%	0%	**97.0%**	-	96.8%	95.1%	100%	0%	**95.5%**	-	100%	99.6%	99.3%	0%	**99.5%**	-	100%	98.9%	100%	0%	**99.4%**	-	97.7%
Single-Unit Trucks	1	3	0	0	**4**	-	1	4	0	0	**5**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	10
% Single-Unit Trucks	2.0%	1.9%	0%	0%	**1.3%**	-	1.6%	1.2%	0%	0%	**1.2%**	-	0%	0%	0.7%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Articulated Trucks	0	1	0	0	**1**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	4
% Articulated Trucks	0%	0.6%	0%	0%	**0.3%**	-	0%	0.9%	0%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.3%
Buses	0	4	0	0	**4**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	9
% Buses	0%	2.5%	0%	0%	**1.3%**	-	0%	1.5%	0%	0%	**1.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.7%
Bicycles on Road	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	4
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0.6%	0%	0%	**0.5%**	-	0%	0.4%	0%	0%	**0.2%**	-	0%	1.1%	0%	0%	**0.6%**	-	0.3%
Pedestrians	-	-	-	-	-	25	-	-	-	-	-	33	-	-	-	-	-	60	-	-	-	-	-	37	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	97.1%	-	-	-	-	-	100%	-	-	-	-	-	78.7%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	10	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	2.9%	-	-	-	-	-	0%	-	-	-	-	-	21.3%	-

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

Willingdon Ave and Albert St. - TMC
Tue Oct 8, 2019
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706444, Location: 49.2819, -123.003133

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings St and Willingdon Ave - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706447, Location: 49.281018, -123.003098

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

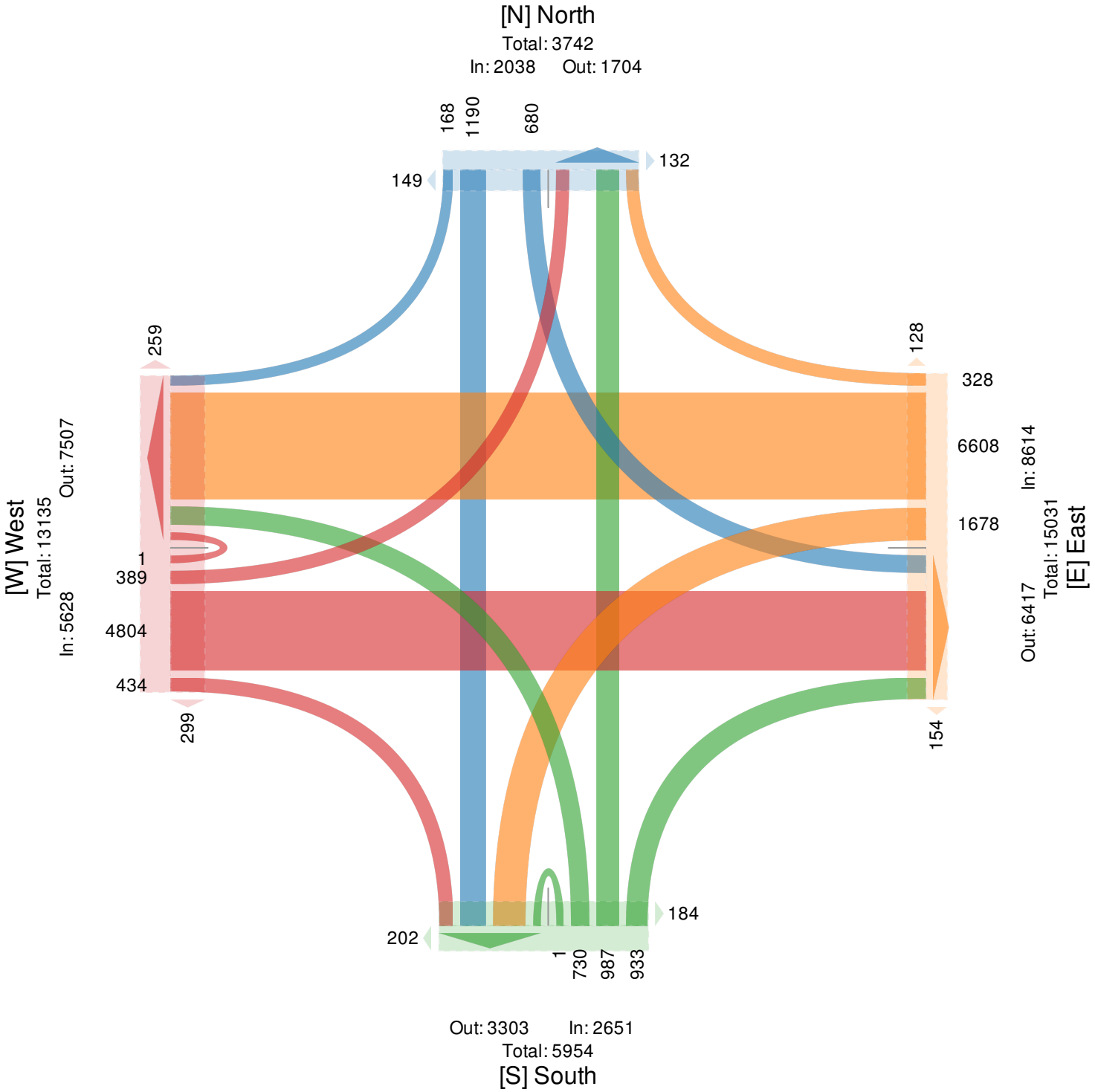
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 6:00AM	8	35	9	0	**52**	2	5	11	7	0	**23**	4	13	39	6	0	**58**	6	25	244	11	0	**280**	2	**413**
6:15AM	18	42	9	0	**69**	3	6	15	4	0	**25**	3	19	73	5	0	**97**	4	34	361	14	0	**409**	1	**600**
6:30AM	18	38	11	0	**67**	1	8	22	8	0	**38**	4	29	63	12	0	**104**	9	61	452	15	0	**528**	1	**737**
6:45AM	24	33	13	0	**70**	3	12	25	10	0	**47**	6	16	65	13	0	**94**	20	91	407	12	0	**510**	2	**721**
Hourly Total	68	148	42	0	**258**	9	31	73	29	0	**133**	17	77	240	36	0	**353**	39	211	1464	52	0	**1727**	6	**2471**
7:00AM	16	27	7	0	**50**	4	13	33	5	0	**51**	6	18	92	9	0	**119**	11	77	423	9	0	**509**	4	**729**
7:15AM	32	23	8	0	**63**	5	15	42	4	0	**61**	4	17	92	13	0	**122**	22	88	423	15	0	**526**	4	**772**
7:30AM	32	33	14	0	**79**	7	15	38	6	0	**59**	11	11	135	12	0	**158**	21	119	416	20	0	**555**	5	**851**
7:45AM	27	31	29	0	**87**	8	21	56	7	0	**84**	12	13	126	22	0	**161**	28	116	394	15	0	**525**	11	**857**
Hourly Total	107	114	58	0	**279**	24	64	169	22	0	**255**	33	59	445	56	0	**560**	82	400	1656	59	0	**2115**	24	**3209**
8:00AM	30	33	27	1	**91**	10	20	64	6	0	**90**	8	11	101	16	0	**128**	32	140	382	20	0	**542**	8	**851**
8:15AM	29	26	25	0	**80**	12	28	50	6	0	**84**	10	10	151	20	0	**181**	26	110	427	18	0	**555**	18	**900**
8:30AM	40	60	31	0	**131**	8	28	58	7	0	**93**	17	10	134	21	0	**165**	28	107	347	16	0	**470**	16	**859**
8:45AM	27	48	23	0	**98**	13	22	53	5	0	**80**	8	12	158	20	1	**191**	20	124	325	6	0	**455**	9	**824**
Hourly Total	126	167	106	1	**400**	43	98	225	24	0	**347**	43	43	544	77	1	**665**	106	481	1481	60	0	**2022**	51	**3434**
4:00PM	38	51	45	0	**134**	20	43	71	11	0	**125**	20	20	367	36	0	**423**	28	45	135	14	0	**194**	15	**876**
4:15PM	38	46	67	0	**151**	25	30	51	3	0	**84**	18	12	368	23	0	**403**	23	45	170	11	0	**226**	13	**864**
4:30PM	33	29	65	0	**127**	21	51	49	12	0	**112**	12	11	216	17	0	**244**	26	57	177	8	0	**242**	18	**725**
4:45PM	36	42	68	0	**146**	30	55	60	10	0	**125**	13	17	305	14	0	**336**	34	55	205	17	0	**277**	6	**884**
Hourly Total	145	168	245	0	**558**	96	179	231	36	0	**446**	63	60	1256	90	0	**1406**	111	202	687	50	0	**939**	52	**3349**
5:00PM	37	46	61	0	**144**	23	46	62	11	0	**119**	14	11	308	26	0	**345**	20	53	170	12	0	**235**	17	**843**
5:15PM	42	60	91	0	**193**	34	52	66	7	0	**125**	22	19	277	20	0	**316**	47	42	161	16	0	**219**	23	**853**
5:30PM	30	49	70	0	**149**	36	49	71	8	0	**128**	15	12	306	17	0	**335**	22	55	199	16	0	**270**	17	**882**
5:45PM	47	54	53	0	**154**	31	46	83	5	0	**134**	19	18	288	23	0	**329**	34	41	193	14	0	**248**	16	**865**
Hourly Total	156	209	275	0	**640**	124	193	282	31	0	**506**	70	60	1179	86	0	**1325**	123	191	723	58	0	**972**	73	**3443**
6:00PM	30	46	47	0	**123**	27	27	55	7	0	**89**	14	15	372	24	0	**411**	30	47	194	8	0	**249**	12	**872**
6:15PM	32	38	48	0	**118**	17	27	48	7	0	**82**	11	22	292	20	0	**334**	19	48	152	16	0	**216**	16	**750**
6:30PM	34	50	56	0	**140**	27	32	62	7	0	**101**	16	26	237	20	0	**283**	20	54	127	14	0	**195**	32	**719**
6:45PM	32	47	56	0	**135**	19	29	45	5	0	**79**	14	27	239	25	0	**291**	28	44	124	11	0	**179**	16	**684**
Hourly Total	128	181	207	0	**516**	90	115	210	26	0	**351**	55	90	1140	89	0	**1319**	97	193	597	49	0	**839**	76	**3025**
Total	730	987	933	1	**2651**	386	680	1190	168	0	**2038**	281	389	4804	434	1	**5628**	558	1678	6608	328	0	**8614**	282	**18931**
% Approach	27.5%	37.2%	35.2%	0%	**-**	-	33.4%	58.4%	8.2%	0%	**-**	-	6.9%	85.4%	7.7%	0%	**-**	-	19.5%	76.7%	3.8%	0%	**-**	-	-
% Total	3.9%	5.2%	4.9%	0%	**14.0%**	-	3.6%	6.3%	0.9%	0%	**10.8%**	-	2.1%	25.4%	2.3%	0%	**29.7%**	-	8.9%	34.9%	1.7%	0%	**45.5%**	-	-
Motorcycles	2	2	1	0	**5**	-	1	1	1	0	**3**	-	0	11	2	0	**13**	-	5	22	0	0	**27**	-	48
% Motorcycles	0.3%	0.2%	0.1%	0%	**0.2%**	-	0.1%	0.1%	0.6%	0%	**0.1%**	-	0%	0.2%	0.5%	0%	**0.2%**	-	0.3%	0.3%	0%	0%	**0.3%**	-	0.3%
Lights	683	919	924	1	**2527**	-	660	1133	145	0	**1938**	-	370	4618	352	1	**5341**	-	1660	6367	312	0	**8339**	-	18145
% Lights	93.6%	93.1%	99.0%	100%	**95.3%**	-	97.1%	95.2%	86.3%	0%	**95.1%**	-	95.1%	96.1%	81.1%	100%	**94.9%**	-	98.9%	96.4%	95.1%	0%	**96.8%**	-	95.8%
Single-Unit Trucks	19	25	5	0	**49**	-	6	21	3	0	**30**	-	4	50	16	0	**70**	-	12	73	3	0	**88**	-	237
% Single-Unit Trucks	2.6%	2.5%	0.5%	0%	**1.8%**	-	0.9%	1.8%	1.8%	0%	**1.5%**	-	1.0%	1.0%	3.7%	0%	**1.2%**	-	0.7%	1.1%	0.9%	0%	**1.0%**	-	1.3%
Articulated Trucks	1	37	2	0	**40**	-	0	26	7	0	**33**	-	4	2	0	0	**6**	-	0	9	1	0	**10**	-	89
% Articulated Trucks	0.1%	3.7%	0.2%	0%	**1.5%**	-	0%	2.2%	4.2%	0%	**1.6%**	-	1.0%	0%	0%	0%	**0.1%**	-	0%	0.1%	0.3%	0%	**0.1%**	-	0.5%
Buses	25	3	1	0	**29**	-	12	6	11	0	**29**	-	11	120	62	0	**193**	-	1	131	11	0	**143**	-	394
% Buses	3.4%	0.3%	0.1%	0%	**1.1%**	-	1.8%	0.5%	6.5%	0%	**1.4%**	-	2.8%	2.5%	14.3%	0%	**3.4%**	-	0.1%	2.0%	3.4%	0%	**1.7%**	-	2.1%
Pedestrians	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Pedestrians	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	1	0	0	**1**	-	1	2	1	0	**4**	-	0	3	2	0	**5**	-	0	6	1	0	**7**	-	17
% Bicycles on Road	0%	0.1%	0%	0%	**0%**	-	0.1%	0.2%	0.6%	0%	**0.2%**	-	0%	0.1%	0.5%	0%	**0.1%**	-	0%	0.1%	0.3%	0%	**0.1%**	-	0.1%
Pedestrians	-	-	-	-	-	383	-	-	-	-	-	280	-	-	-	-	-	550	-	-	-	-	-	264	
% Pedestrians	-	-	-	-	-	99.2%	-	-	-	-	-	99.6%	-	-	-	-	-	98.6%	-	-	-	-	-	93.6%	-
Bicycles on Crosswalk	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	8	-	-	-	-	-	18	
% Bicycles on Crosswalk	-	-	-	-	-	0.8%	-	-	-	-	-	0.4%	-	-	-	-	-	1.4%	-	-	-	-	-	6.4%	-

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

Hastings St and Willingdon Ave - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706447, Location: 49.281018, -123.003098

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings St and Willingdon Ave - TMC
Tue Oct 8, 2019
AM Peak (7:45 AM - 8:45 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706447, Location: 49.281018, -123.003098

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

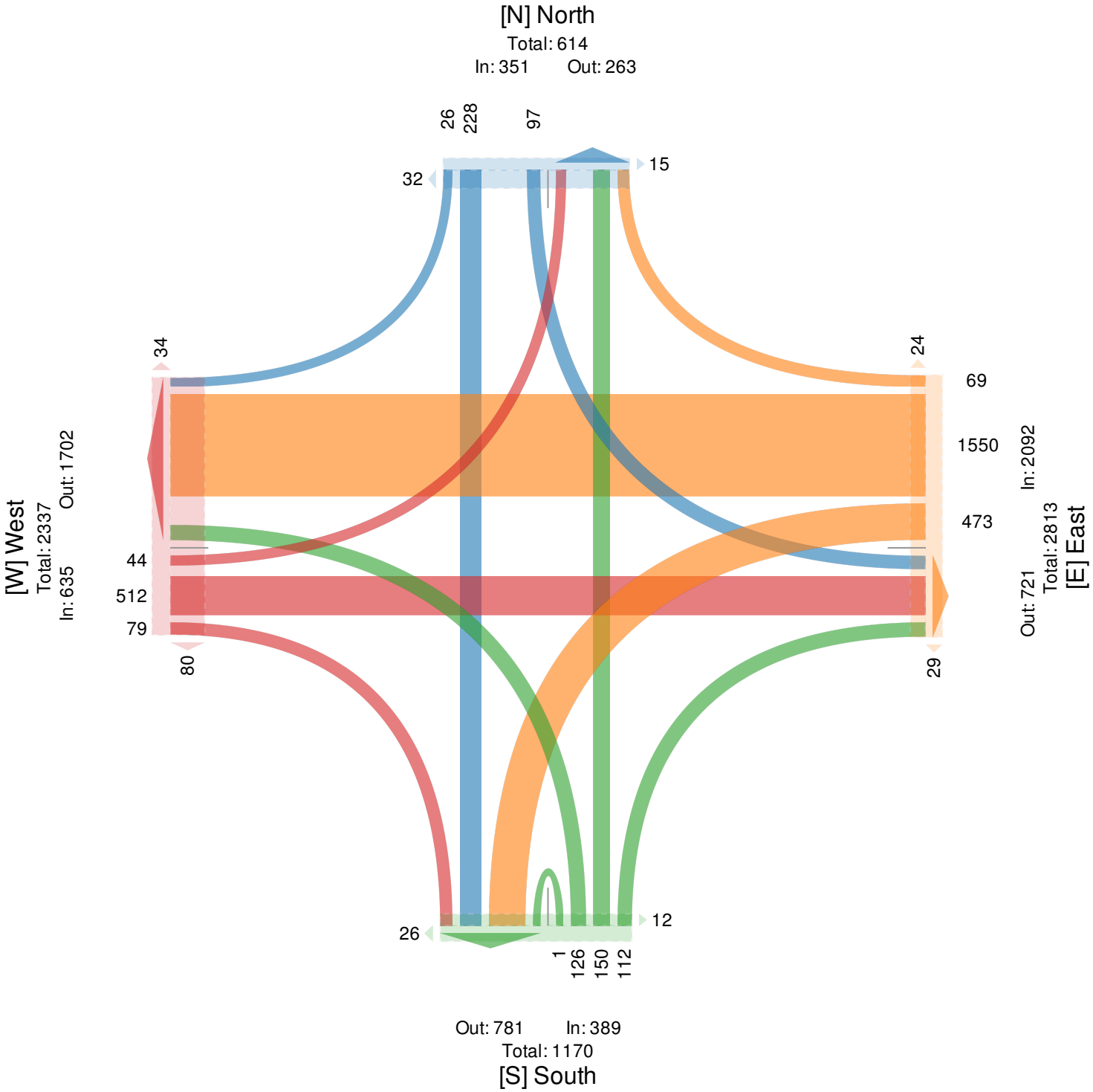
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 7:45AM	27	31	29	0	**87**	8	21	56	7	0	**84**	12	13	126	22	0	**161**	28	116	394	15	0	**525**	11	**857**
8:00AM	30	33	27	1	**91**	10	20	64	6	0	**90**	8	11	101	16	0	**128**	32	140	382	20	0	**542**	8	**851**
8:15AM	29	26	25	0	**80**	12	28	50	6	0	**84**	10	10	151	20	0	**181**	26	110	427	18	0	**555**	18	**900**
8:30AM	40	60	31	0	**131**	8	28	58	7	0	**93**	17	10	134	21	0	**165**	28	107	347	16	0	**470**	16	**859**
Total	126	150	112	1	**389**	38	97	228	26	0	**351**	47	44	512	79	0	**635**	114	473	1550	69	0	**2092**	53	**3467**
% Approach	32.4%	38.6%	28.8%	0.3%	-	-	27.6%	65.0%	7.4%	0%	-	-	6.9%	80.6%	12.4%	0%	-	-	22.6%	74.1%	3.3%	0%	-	-	-
% Total	3.6%	4.3%	3.2%	0%	**11.2%**	-	2.8%	6.6%	0.7%	0%	**10.1%**	-	1.3%	14.8%	2.3%	0%	**18.3%**	-	13.6%	44.7%	2.0%	0%	**60.3%**	-	-
PHF	0.788	0.625	0.903	0.250	**0.742**	-	0.857	0.891	0.893	-	**0.938**	-	0.846	0.848	0.886	-	**0.881**	-	0.845	0.907	0.863	-	**0.942**	-	0.965
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	4	0	0	**4**	-	6
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.4%	0%	0%	**0.3%**	-	0%	0.3%	0%	0%	**0.2%**	-	0.2%
Lights	117	134	111	1	**363**	-	94	212	20	0	**326**	-	40	489	63	0	**592**	-	470	1499	68	0	**2037**	-	3318
% Lights	92.9%	89.3%	99.1%	100%	**93.3%**	-	96.9%	93.0%	76.9%	0%	**92.9%**	-	90.9%	95.5%	79.7%	0%	**93.2%**	-	99.4%	96.7%	98.6%	0%	**97.4%**	-	95.7%
Single-Unit Trucks	4	6	0	0	**10**	-	2	9	0	0	**11**	-	2	5	5	0	**12**	-	3	24	1	0	**28**	-	61
% Single-Unit Trucks	3.2%	4.0%	0%	0%	**2.6%**	-	2.1%	3.9%	0%	0%	**3.1%**	-	4.5%	1.0%	6.3%	0%	**1.9%**	-	0.6%	1.5%	1.4%	0%	**1.3%**	-	1.8%
Articulated Trucks	1	8	1	0	**10**	-	0	4	3	0	**7**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	18
% Articulated Trucks	0.8%	5.3%	0.9%	0%	**2.6%**	-	0%	1.8%	11.5%	0%	**2.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0%**	-	0.5%
Buses	4	2	0	0	**6**	-	0	3	2	0	**5**	-	2	16	10	0	**28**	-	0	22	0	0	**22**	-	61
% Buses	3.2%	1.3%	0%	0%	**1.5%**	-	0%	1.3%	7.7%	0%	**1.4%**	-	4.5%	3.1%	12.7%	0%	**4.4%**	-	0%	1.4%	0%	0%	**1.1%**	-	1.8%
Pedestrians	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Pedestrians	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	0	**0**	-	1	0	1	0	**2**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	3
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	1.0%	0%	3.8%	0%	**0.6%**	-	0%	0%	1.3%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Pedestrians	-	-	-	-	-	38	-	-	-	-	-	47	-	-	-	-	-	114	-	-	-	-	-	49	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	92.5%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	4	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	7.5%	-

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

Hastings St and Willingdon Ave - TMC
Tue Oct 8, 2019
AM Peak (7:45 AM - 8:45 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706447, Location: 49.281018, -123.003098

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings St and Willingdon Ave - TMC
Tue Oct 8, 2019
PM Peak (5:15 PM - 6:15 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706447, Location: 49.281018, -123.003098

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

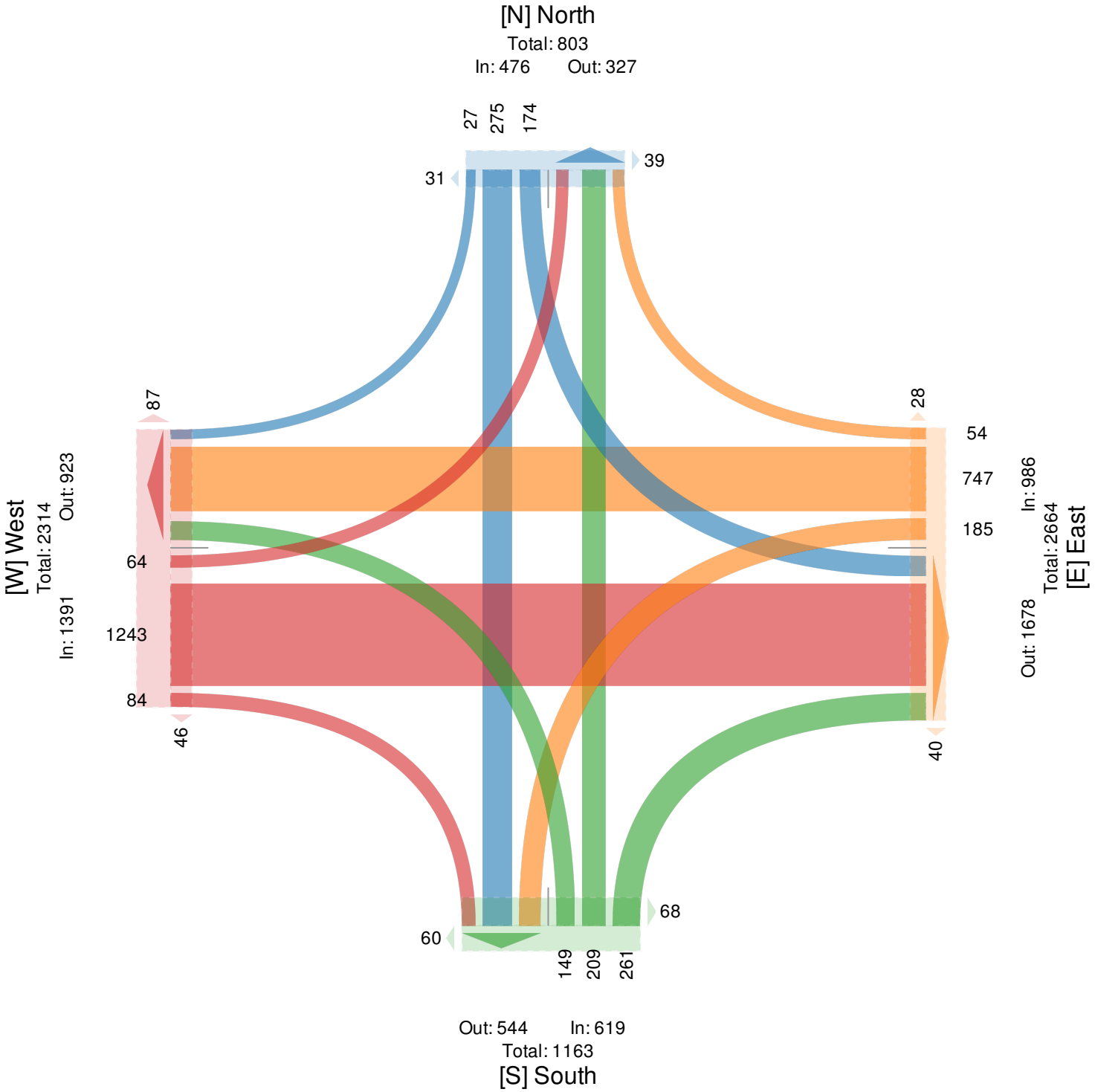
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 5:15PM	42	60	91	0	**193**	34	52	66	7	0	**125**	22	19	277	20	0	**316**	47	42	161	16	0	**219**	23	**853**
5:30PM	30	49	70	0	**149**	36	49	71	8	0	**128**	15	12	306	17	0	**335**	22	55	199	16	0	**270**	17	**882**
5:45PM	47	54	53	0	**154**	31	46	83	5	0	**134**	19	18	288	23	0	**329**	34	41	193	14	0	**248**	16	**865**
6:00PM	30	46	47	0	**123**	27	27	55	7	0	**89**	14	15	372	24	0	**411**	30	47	194	8	0	**249**	12	**872**
Total	149	209	261	0	**619**	128	174	275	27	0	**476**	70	64	1243	84	0	**1391**	133	185	747	54	0	**986**	68	**3472**
% Approach	24.1%	33.8%	42.2%	0%	**-**	-	36.6%	57.8%	5.7%	0%	**-**	-	4.6%	89.4%	6.0%	0%	**-**	-	18.8%	75.8%	5.5%	0%	**-**	-	-
% Total	4.3%	6.0%	7.5%	0%	**17.8%**	-	5.0%	7.9%	0.8%	0%	**13.7%**	-	1.8%	35.8%	2.4%	0%	**40.1%**	-	5.3%	21.5%	1.6%	0%	**28.4%**	-	-
PHF	0.793	0.871	0.717	-	**0.802**	-	0.837	0.835	0.844	-	**0.893**	-	0.842	0.835	0.875	-	**0.845**	-	0.841	0.937	0.844	-	**0.912**	-	0.984
Motorcycles	0	0	1	0	**1**	-	0	1	0	0	**1**	-	0	3	0	0	**3**	-	1	3	0	0	**4**	-	9
% Motorcycles	0%	0%	0.4%	0%	**0.2%**	-	0%	0.4%	0%	0%	**0.2%**	-	0%	0.2%	0%	0%	**0.2%**	-	0.5%	0.4%	0%	0%	**0.4%**	-	0.3%
Lights	146	202	260	0	**608**	-	171	265	26	0	**462**	-	62	1214	70	0	**1346**	-	184	715	50	0	**949**	-	3365
% Lights	98.0%	96.7%	99.6%	0%	**98.2%**	-	98.3%	96.4%	96.3%	0%	**97.1%**	-	96.9%	97.7%	83.3%	0%	**96.8%**	-	99.5%	95.7%	92.6%	0%	**96.2%**	-	96.9%
Single-Unit Trucks	0	2	0	0	**2**	-	0	5	0	0	**5**	-	0	6	0	0	**6**	-	0	6	0	0	**6**	-	19
% Single-Unit Trucks	0%	1.0%	0%	0%	**0.3%**	-	0%	1.8%	0%	0%	**1.1%**	-	0%	0.5%	0%	0%	**0.4%**	-	0%	0.8%	0%	0%	**0.6%**	-	0.5%
Articulated Trucks	0	5	0	0	**5**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	3	1	0	**4**	-	12
% Articulated Trucks	0%	2.4%	0%	0%	**0.8%**	-	0%	1.1%	0%	0%	**0.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0.4%	1.9%	0%	**0.4%**	-	0.3%
Buses	3	0	0	0	**3**	-	3	0	1	0	**4**	-	2	19	14	0	**35**	-	0	19	3	0	**22**	-	64
% Buses	2.0%	0%	0%	0%	**0.5%**	-	1.7%	0%	3.7%	0%	**0.8%**	-	3.1%	1.5%	16.7%	0%	**2.5%**	-	0%	2.5%	5.6%	0%	**2.2%**	-	1.8%
Pedestrians	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Pedestrians	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	3
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0.4%	0%	0%	**0.2%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.1%
Pedestrians	-	-	-	-	-	126	-	-	-	-	-	69	-	-	-	-	-	125	-	-	-	-	-	63	
% Pedestrians	-	-	-	-	-	98.4%	-	-	-	-	-	98.6%	-	-	-	-	-	94.0%	-	-	-	-	-	92.6%	-
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	8	-	-	-	-	-	5	
% Bicycles on Crosswalk	-	-	-	-	-	1.6%	-	-	-	-	-	1.4%	-	-	-	-	-	6.0%	-	-	-	-	-	7.4%	-

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

Hastings St and Willingdon Ave - TMC
Tue Oct 8, 2019
PM Peak (5:15 PM - 6:15 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706447, Location: 49.281018, -123.003098

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



North Beta Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707676, Location: 49.287499, -122.99694

McElhanney

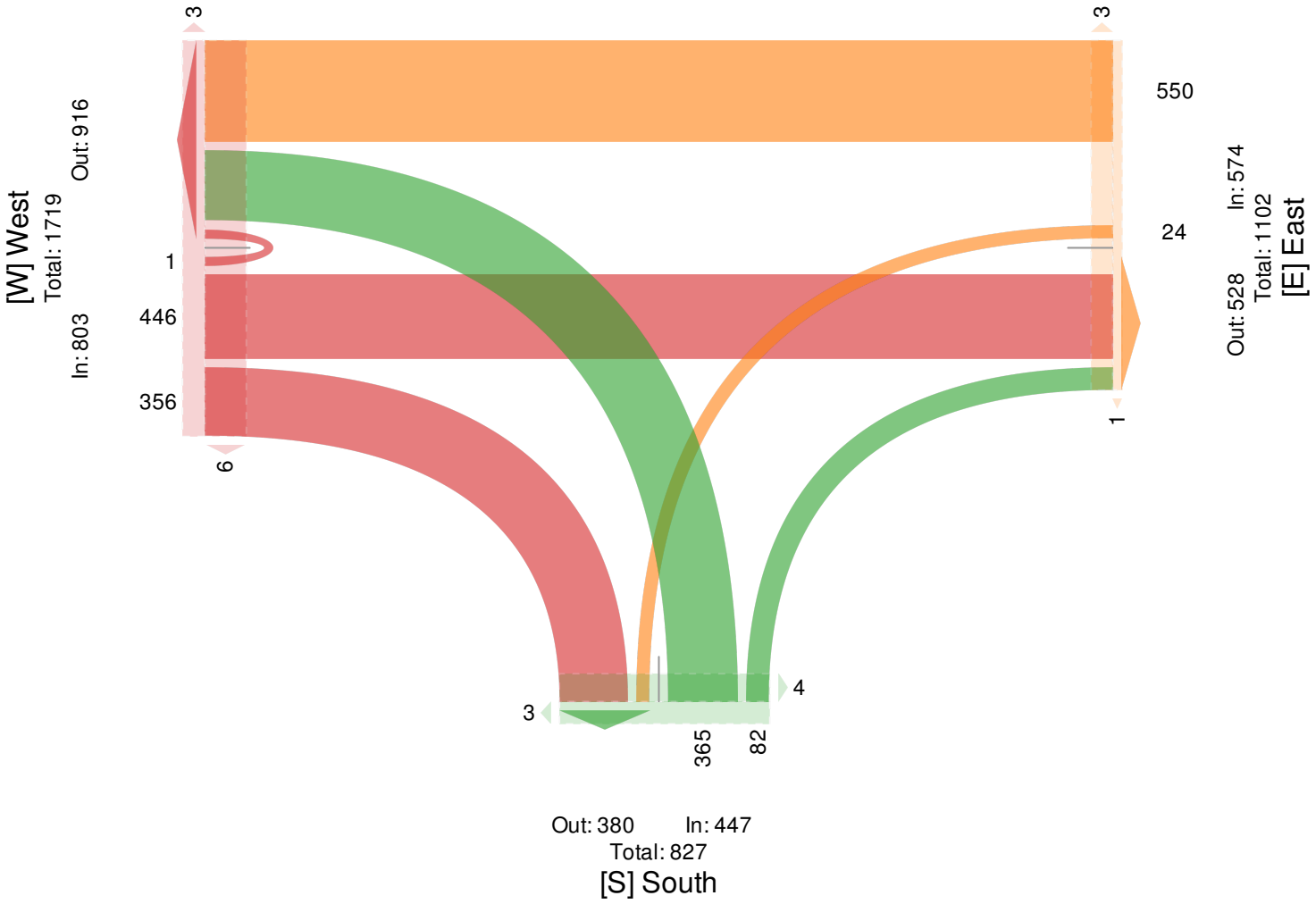
Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

Leg	South					West					East					
Direction	Northbound					Eastbound					Westbound					
Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
2019-10-10 6:00AM	2	6	0	**8**	0	29	0	0	**29**	0	1	5	0	**6**	0	**43**
6:15AM	7	15	0	**22**	0	55	2	0	**57**	0	0	7	0	**7**	0	**86**
6:30AM	12	30	0	**42**	0	63	0	0	**63**	0	1	6	0	**7**	0	**112**
6:45AM	17	11	0	**28**	0	34	2	0	**36**	0	0	12	0	**12**	0	**76**
Hourly Total	38	62	0	**100**	0	181	4	0	**185**	0	2	30	0	**32**	0	**317**
7:00AM	21	4	0	**25**	0	29	0	0	**29**	0	0	8	0	**8**	0	**62**
7:15AM	19	3	0	**22**	0	20	2	0	**22**	1	0	10	0	**10**	0	**54**
7:30AM	38	2	0	**40**	0	25	0	0	**25**	0	0	9	0	**9**	0	**74**
7:45AM	42	1	0	**43**	0	17	1	0	**18**	0	0	9	0	**9**	2	**70**
Hourly Total	120	10	0	**130**	0	91	3	0	**94**	1	0	36	0	**36**	2	**260**
8:00AM	34	1	0	**35**	0	11	1	0	**12**	1	0	14	0	**14**	0	**61**
8:15AM	38	1	0	**39**	0	11	2	0	**13**	3	0	10	0	**10**	0	**62**
8:30AM	42	2	0	**44**	0	14	3	0	**17**	1	0	7	0	**7**	0	**68**
8:45AM	44	1	0	**45**	0	8	5	1	**14**	1	0	12	0	**12**	0	**71**
Hourly Total	158	5	0	**163**	0	44	11	1	**56**	6	0	43	0	**43**	0	**262**
4:00PM	7	0	0	**7**	0	16	32	0	**48**	0	5	21	0	**26**	1	**81**
4:15PM	2	0	0	**2**	0	12	50	0	**62**	0	1	21	0	**22**	0	**86**
4:30PM	5	1	0	**6**	0	7	37	0	**44**	0	2	24	0	**26**	0	**76**
4:45PM	3	0	0	**3**	0	19	35	0	**54**	0	0	18	0	**18**	0	**75**
Hourly Total	17	1	0	**18**	0	54	154	0	**208**	0	8	84	0	**92**	1	**318**
5:00PM	1	0	0	**1**	0	7	28	0	**35**	0	0	54	0	**54**	0	**90**
5:15PM	2	2	0	**4**	3	18	30	0	**48**	0	0	46	0	**46**	0	**98**
5:30PM	6	0	0	**6**	0	13	47	0	**60**	0	11	149	0	**160**	0	**226**
5:45PM	6	0	0	**6**	2	9	27	0	**36**	1	0	46	0	**46**	1	**88**
Hourly Total	15	2	0	**17**	5	47	132	0	**179**	1	11	295	0	**306**	1	**502**
6:00PM	5	0	0	**5**	0	11	23	0	**34**	1	2	19	0	**21**	0	**60**
6:15PM	4	1	0	**5**	1	8	14	0	**22**	0	0	22	0	**22**	0	**49**
6:30PM	5	0	0	**5**	1	4	11	0	**15**	0	0	16	0	**16**	0	**36**
6:45PM	3	1	0	**4**	0	6	4	0	**10**	0	1	5	0	**6**	0	**20**
Hourly Total	17	2	0	**19**	2	29	52	0	**81**	1	3	62	0	**65**	0	**165**
Total	365	82	0	**447**	7	446	356	1	**803**	9	24	550	0	**574**	4	**1824**
% Approach	81.7%	18.3%	0%	-	-	55.5%	44.3%	0.1%	-	-	4.2%	95.8%	0%	-	-	-
% Total	20.0%	4.5%	0%	**24.5%**	-	24.5%	19.5%	0.1%	**44.0%**	-	1.3%	30.2%	0%	**31.5%**	-	-
Motorcycles	0	0	0	**0**	-	4	3	0	**7**	-	0	5	0	**5**	-	12
% Motorcycles	0%	0%	0%	**0%**	-	0.9%	0.8%	0%	**0.9%**	-	0%	0.9%	0%	**0.9%**	-	0.7%
Lights	364	81	0	**445**	-	393	351	1	**745**	-	23	503	0	**526**	-	1716
% Lights	99.7%	98.8%	0%	**99.6%**	-	88.1%	98.6%	100%	**92.8%**	-	95.8%	91.5%	0%	**91.6%**	-	94.1%
Single-Unit Trucks	1	0	0	**1**	-	14	2	0	**16**	-	0	17	0	**17**	-	34
% Single-Unit Trucks	0.3%	0%	0%	**0.2%**	-	3.1%	0.6%	0%	**2.0%**	-	0%	3.1%	0%	**3.0%**	-	1.9%
Articulated Trucks	0	0	0	**0**	-	5	0	0	**5**	-	0	1	0	**1**	-	6
% Articulated Trucks	0%	0%	0%	**0%**	-	1.1%	0%	0%	**0.6%**	-	0%	0.2%	0%	**0.2%**	-	0.3%
Buses	0	0	0	**0**	-	27	0	0	**27**	-	0	21	0	**21**	-	48
% Buses	0%	0%	0%	**0%**	-	6.1%	0%	0%	**3.4%**	-	0%	3.8%	0%	**3.7%**	-	2.6%
Bicycles on Road	0	1	0	**1**	-	3	0	0	**3**	-	1	3	0	**4**	-	8
% Bicycles on Road	0%	1.2%	0%	**0.2%**	-	0.7%	0%	0%	**0.4%**	-	4.2%	0.5%	0%	**0.7%**	-	0.4%
Pedestrians	-	-	-	-	7	-	-	-	-	9	-	-	-	-	3	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	75.0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	25.0%	-

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

North Beta Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707676, Location: 49.287499, -122.99694

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



North Beta Ave and Penzance Dr. - TMC

Thu Oct 10, 2019
AM Peak (6:15 AM - 7:15 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707676, Location: 49.287499, -122.99694

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

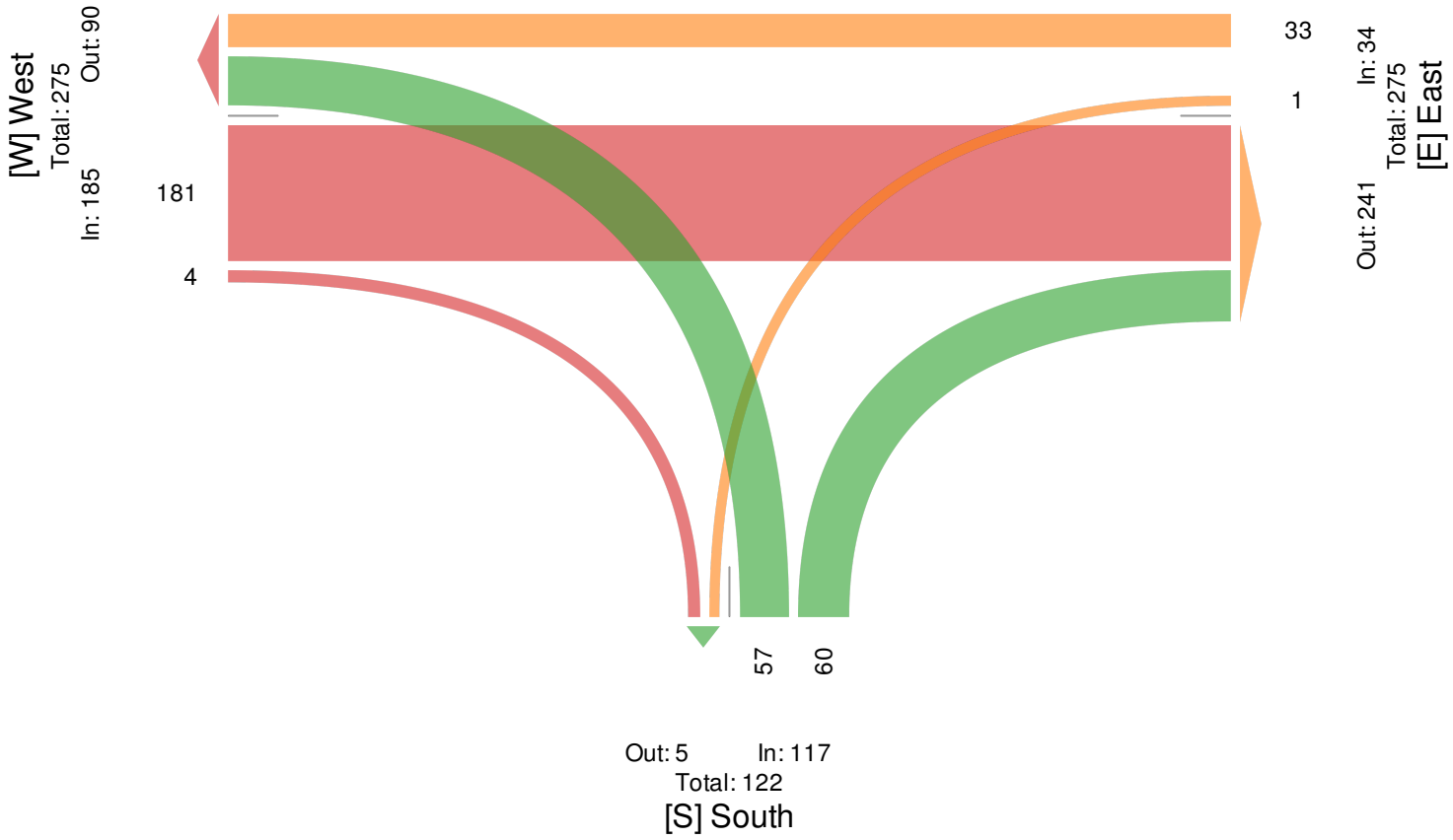
Leg	South					West					East					
Direction	Northbound					Eastbound					Westbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
2019-10-10 6:15AM	7	15	0	**22**	0	55	2	0	**57**	0	0	7	0	**7**	0	**86**
6:30AM	12	30	0	**42**	0	63	0	0	**63**	0	1	6	0	**7**	0	**112**
6:45AM	17	11	0	**28**	0	34	2	0	**36**	0	0	12	0	**12**	0	**76**
7:00AM	21	4	0	**25**	0	29	0	0	**29**	0	0	8	0	**8**	0	**62**
Total	57	60	0	**117**	0	181	4	0	**185**	0	1	33	0	**34**	0	**336**
% Approach	48.7%	51.3%	0%	-	-	97.8%	2.2%	0%	-	-	2.9%	97.1%	0%	-	-	-
% Total	17.0%	17.9%	0%	**34.8%**	-	53.9%	1.2%	0%	**55.1%**	-	0.3%	9.8%	0%	**10.1%**	-	-
PHF	0.679	0.492	-	**0.690**	-	0.718	0.500	-	**0.734**	-	0.250	0.688	-	**0.708**	-	0.748
Motorcycles	0	0	0	**0**	-	3	0	0	**3**	-	0	0	0	**0**	-	3
% Motorcycles	0%	0%	0%	**0%**	-	1.7%	0%	0%	**1.6%**	-	0%	0%	0%	**0%**	-	0.9%
Lights	57	59	0	**116**	-	171	4	0	**175**	-	1	28	0	**29**	-	320
% Lights	100%	98.3%	0%	**99.1%**	-	94.5%	100%	0%	**94.6%**	-	100%	84.8%	0%	**85.3%**	-	95.2%
Single-Unit Trucks	0	0	0	**0**	-	1	0	0	**1**	-	0	2	0	**2**	-	3
% Single-Unit Trucks	0%	0%	0%	**0%**	-	0.6%	0%	0%	**0.5%**	-	0%	6.1%	0%	**5.9%**	-	0.9%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	**0**	-	6	0	0	**6**	-	0	3	0	**3**	-	9
% Buses	0%	0%	0%	**0%**	-	3.3%	0%	0%	**3.2%**	-	0%	9.1%	0%	**8.8%**	-	2.7%
Bicycles on Road	0	1	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Bicycles on Road	0%	1.7%	0%	**0.9%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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

North Beta Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
AM Peak (6:15 AM - 7:15 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707676, Location: 49.287499, -122.99694

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



North Beta Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707676, Location: 49.287499, -122.99694

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

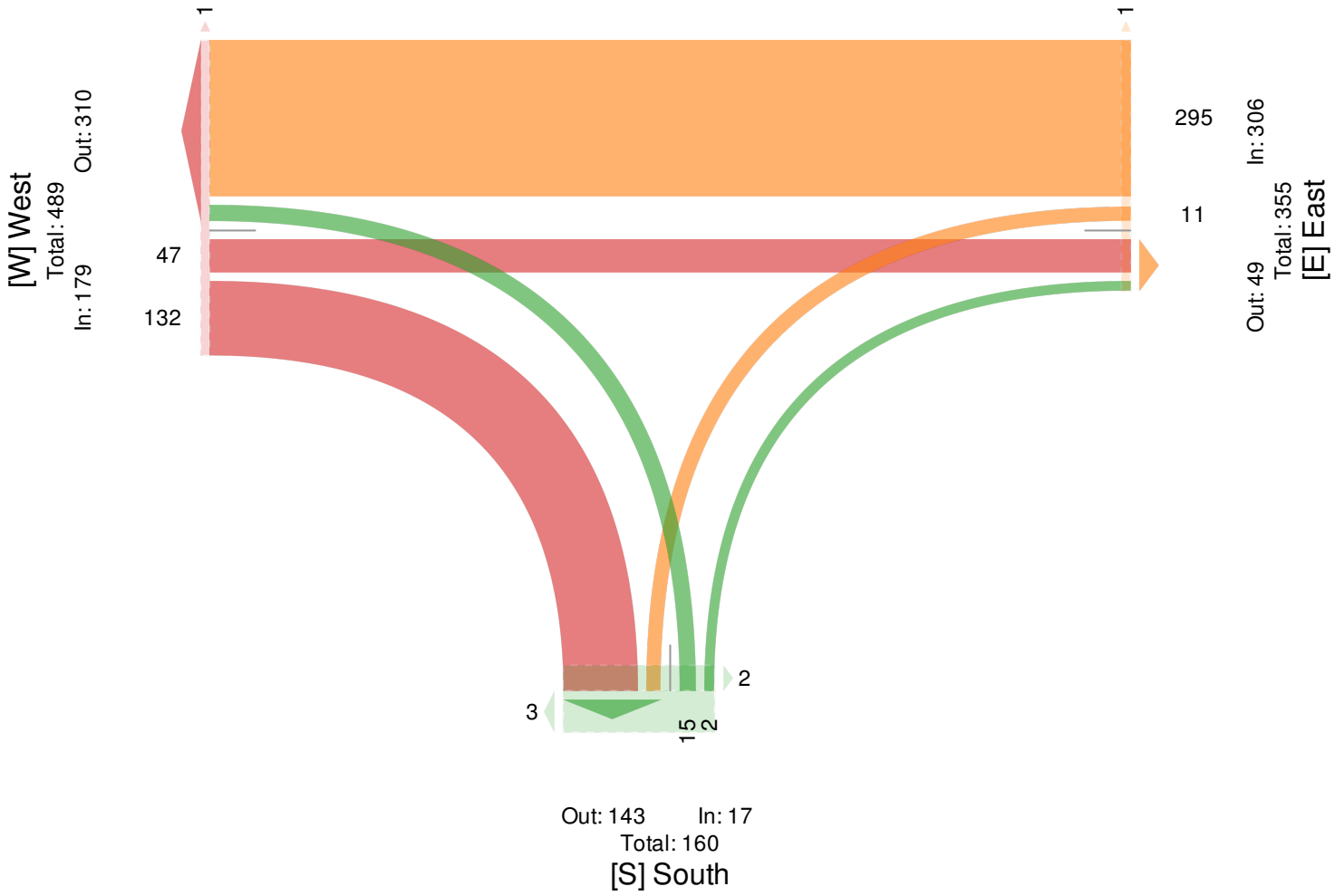
Leg Direction	South Northbound					West Eastbound					East Westbound					
Time	L	R	U	**App**	Ped*	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	**Int**
2019-10-10 5:00PM	1	0	0	**1**	0	7	28	0	**35**	0	0	54	0	**54**	0	**90**
5:15PM	2	2	0	**4**	3	18	30	0	**48**	0	0	46	0	**46**	0	**98**
5:30PM	6	0	0	**6**	0	13	47	0	**60**	0	11	149	0	**160**	0	**226**
5:45PM	6	0	0	**6**	2	9	27	0	**36**	1	0	46	0	**46**	1	**88**
Total	15	2	0	**17**	5	47	132	0	**179**	1	11	295	0	**306**	1	**502**
% Approach	88.2%	11.8%	0%	-	-	26.3%	73.7%	0%	-	-	3.6%	96.4%	0%	-	-	-
% Total	3.0%	0.4%	0%	**3.4%**	-	9.4%	26.3%	0%	**35.7%**	-	2.2%	58.8%	0%	**61.0%**	-	-
PHF	0.625	0.250	-	**0.708**	-	0.653	0.702	-	**0.746**	-	0.250	0.493	-	**0.477**	-	0.554
Motorcycles	0	0	0	**0**	-	1	2	0	**3**	-	0	5	0	**5**	-	8
% Motorcycles	0%	0%	0%	**0%**	-	2.1%	1.5%	0%	**1.7%**	-	0%	1.7%	0%	**1.6%**	-	1.6%
Lights	15	2	0	**17**	-	39	128	0	**167**	-	11	283	0	**294**	-	478
% Lights	100%	100%	0%	**100%**	-	83.0%	97.0%	0%	**93.3%**	-	100%	95.9%	0%	**96.1%**	-	95.2%
Single-Unit Trucks	0	0	0	**0**	-	2	2	0	**4**	-	0	1	0	**1**	-	5
% Single-Unit Trucks	0%	0%	0%	**0%**	-	4.3%	1.5%	0%	**2.2%**	-	0%	0.3%	0%	**0.3%**	-	1.0%
Articulated Trucks	0	0	0	**0**	-	1	0	0	**1**	-	0	0	0	**0**	-	1
% Articulated Trucks	0%	0%	0%	**0%**	-	2.1%	0%	0%	**0.6%**	-	0%	0%	0%	**0%**	-	0.2%
Buses	0	0	0	**0**	-	4	0	0	**4**	-	0	5	0	**5**	-	9
% Buses	0%	0%	0%	**0%**	-	8.5%	0%	0%	**2.2%**	-	0%	1.7%	0%	**1.6%**	-	1.8%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	1	0	**1**	-	1
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0.3%	0%	**0.3%**	-	0.2%
Pedestrians	-	-	-	-	5	-	-	-	-	1	-	-	-	-	1	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-

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

North Beta Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
PM Peak (5 PM - 6 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707676, Location: 49.287499, -122.99694

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707679, Location: 49.288803, -122.99469

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

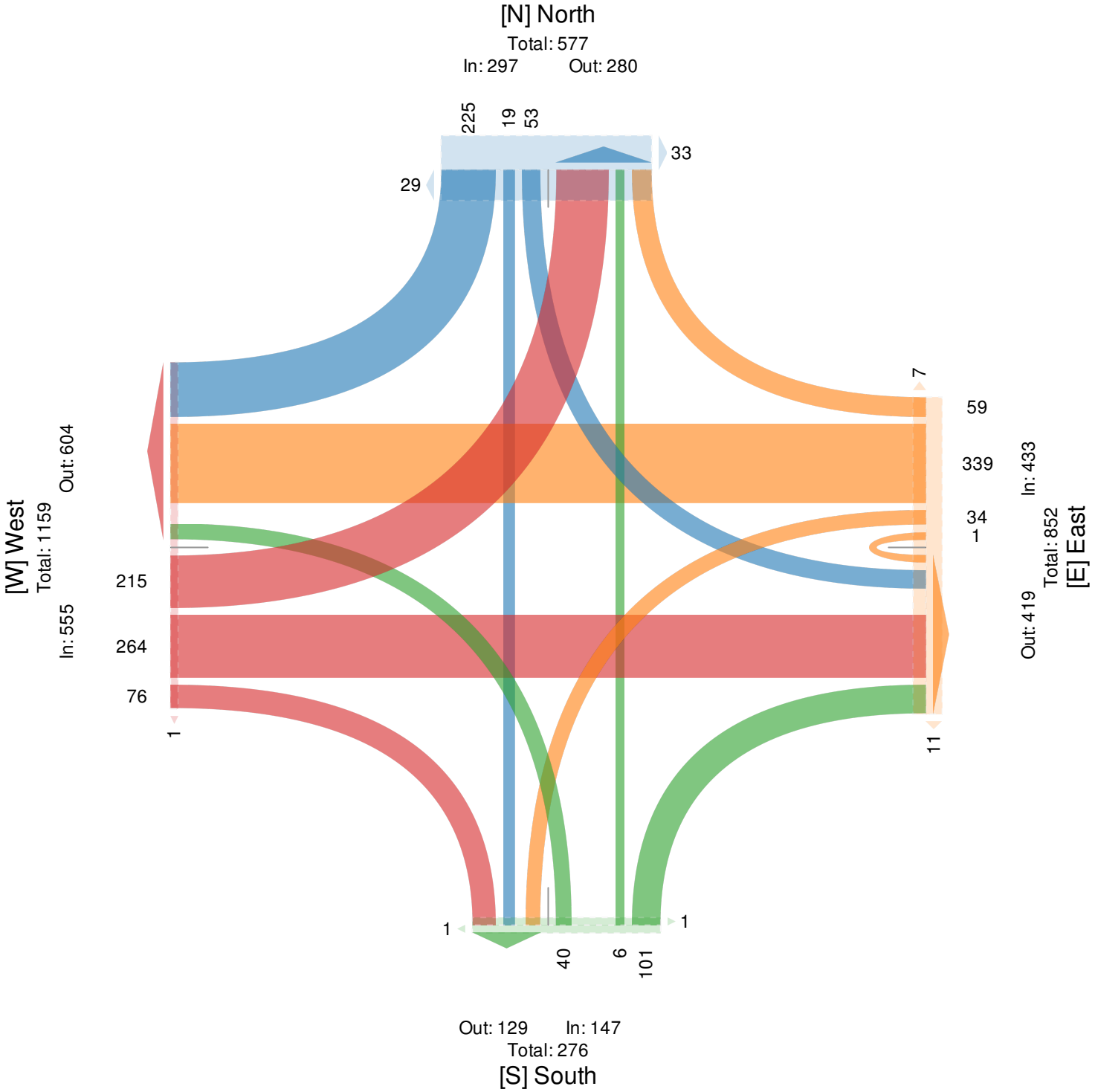
Leg / Direction	South Northbound						North Southbound						West Eastbound						East Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 6:00AM	3	0	10	0	**13**	0	0	0	0	0	**0**	1	26	11	0	0	**37**	0	5	9	0	0	**14**	0	**64**
6:15AM	2	0	7	0	**9**	0	4	0	0	0	**4**	0	51	19	0	0	**70**	0	0	9	0	0	**9**	0	**92**
6:30AM	1	1	19	0	**21**	0	1	0	0	0	**1**	0	73	26	0	0	**99**	0	2	11	1	0	**14**	0	**135**
6:45AM	0	0	15	0	**15**	0	2	0	0	0	**2**	0	20	27	0	0	**47**	0	0	15	0	0	**15**	1	**79**
Hourly Total	6	1	51	0	**58**	0	7	0	0	0	**7**	1	170	83	0	0	**253**	0	7	44	1	0	**52**	1	**370**
7:00AM	1	0	10	0	**11**	0	6	0	0	0	**6**	2	12	16	0	0	**28**	0	0	8	5	0	**13**	2	**58**
7:15AM	3	0	5	0	**8**	0	4	0	0	0	**4**	0	6	13	0	0	**19**	0	2	7	7	0	**16**	0	**47**
7:30AM	1	0	4	0	**5**	0	1	0	1	0	**2**	0	7	16	1	0	**24**	0	0	6	3	0	**9**	1	**40**
7:45AM	2	2	4	0	**8**	0	4	0	0	0	**4**	1	5	9	0	0	**14**	0	1	7	3	0	**11**	0	**37**
Hourly Total	7	2	23	0	**32**	0	15	0	1	0	**16**	3	30	54	1	0	**85**	0	3	28	18	0	**49**	3	**182**
8:00AM	3	0	3	0	**6**	0	3	0	0	0	**3**	4	3	5	3	0	**11**	0	0	8	3	0	**11**	0	**31**
8:15AM	0	0	4	0	**4**	0	3	0	1	0	**4**	4	4	5	5	0	**14**	0	0	7	0	0	**7**	1	**29**
8:30AM	5	0	2	0	**7**	0	3	0	0	0	**3**	1	4	7	3	0	**14**	0	2	7	2	0	**11**	0	**35**
8:45AM	2	2	2	0	**6**	0	2	0	2	0	**4**	2	1	5	2	0	**8**	0	0	7	2	1	**10**	1	**28**
Hourly Total	10	2	11	0	**23**	0	11	0	3	0	**14**	11	12	22	13	0	**47**	0	2	29	7	1	**39**	2	**123**
4:00PM	2	0	1	0	**3**	1	5	7	11	0	**23**	2	0	14	6	0	**20**	1	7	14	6	0	**27**	0	**73**
4:15PM	2	0	0	0	**2**	1	1	0	6	0	**7**	1	0	12	4	0	**16**	0	2	9	4	0	**15**	0	**40**
4:30PM	2	0	4	0	**6**	0	1	2	7	0	**10**	3	0	9	4	0	**13**	0	4	26	1	0	**31**	1	**60**
4:45PM	0	0	1	0	**1**	0	1	3	5	0	**9**	2	0	15	9	0	**24**	0	4	16	1	0	**21**	1	**55**
Hourly Total	6	0	6	0	**12**	2	8	12	29	0	**49**	8	0	50	23	0	**73**	1	17	65	12	0	**94**	2	**228**
5:00PM	0	0	1	0	**1**	0	0	1	26	0	**27**	1	0	9	5	0	**14**	0	1	30	0	0	**31**	0	**73**
5:15PM	2	1	2	0	**5**	0	1	3	14	0	**18**	2	1	15	4	0	**20**	0	1	32	2	0	**35**	2	**78**
5:30PM	1	0	5	0	**6**	0	0	2	113	0	**115**	9	0	14	8	0	**22**	0	0	57	4	0	**61**	3	**204**
5:45PM	1	0	1	0	**2**	0	2	0	12	0	**14**	8	1	6	4	0	**11**	0	0	25	1	0	**26**	1	**53**
Hourly Total	4	1	9	0	**14**	0	3	6	165	0	**174**	20	2	44	21	0	**67**	0	2	144	7	0	**153**	6	**408**
6:00PM	3	0	0	0	**3**	0	4	0	6	0	**10**	2	1	4	4	0	**9**	0	1	11	4	0	**16**	1	**38**
6:15PM	3	0	0	0	**3**	0	1	0	11	0	**12**	9	0	3	6	0	**9**	0	1	9	4	0	**14**	0	**38**
6:30PM	1	0	0	0	**1**	0	1	1	6	0	**8**	6	0	1	3	0	**4**	0	1	4	2	0	**7**	2	**20**
6:45PM	0	0	1	0	**1**	0	3	0	4	0	**7**	2	0	3	5	0	**8**	0	0	5	4	0	**9**	1	**25**
Hourly Total	7	0	1	0	**8**	0	9	1	27	0	**37**	19	1	11	18	0	**30**	0	3	29	14	0	**46**	4	**121**
Total	40	6	101	0	**147**	2	53	19	225	0	**297**	62	215	264	76	0	**555**	1	34	339	59	1	**433**	18	**1432**
% Approach	27.2%	4.1%	68.7%	0%	**-**	-	17.8%	6.4%	75.8%	0%	**-**	-	38.7%	47.6%	13.7%	0%	**-**	-	7.9%	78.3%	13.6%	0.2%	**-**	-	-
% Total	2.8%	0.4%	7.1%	0%	**10.3%**	-	3.7%	1.3%	15.7%	0%	**20.7%**	-	15.0%	18.4%	5.3%	0%	**38.8%**	-	2.4%	23.7%	4.1%	0.1%	**30.2%**	-	-
Motorcycles	0	0	2	0	**2**	-	0	0	0	0	**0**	-	0	4	0	0	**4**	-	0	5	0	0	**5**	-	11
% Motorcycles	0%	0%	2.0%	0%	**1.4%**	-	0%	0%	0%	0%	**0%**	-	0%	1.5%	0%	0%	**0.7%**	-	0%	1.5%	0%	0%	**1.2%**	-	0.8%
Lights	39	5	97	0	**141**	-	10	19	221	0	**250**	-	209	171	75	0	**455**	-	33	240	23	1	**297**	-	1143
% Lights	97.5%	83.3%	96.0%	0%	**95.9%**	-	18.9%	100%	98.2%	0%	**84.2%**	-	97.2%	64.8%	98.7%	0%	**82.0%**	-	97.1%	70.8%	39.0%	100%	**68.6%**	-	79.8%
Single-Unit Trucks	1	0	0	0	**1**	-	0	0	0	0	**0**	-	0	9	1	0	**10**	-	1	14	1	0	**16**	-	27
% Single-Unit Trucks	2.5%	0%	0%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	3.4%	1.3%	0%	**1.8%**	-	2.9%	4.1%	1.7%	0%	**3.7%**	-	1.9%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	8	0	0	**8**	-	0	1	0	0	**1**	-	9
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	3.0%	0%	0%	**1.4%**	-	0%	0.3%	0%	0%	**0.2%**	-	0.6%
Buses	0	1	1	0	**2**	-	41	0	4	0	**45**	-	6	69	0	0	**75**	-	0	76	34	0	**110**	-	232
% Buses	0%	16.7%	1.0%	0%	**1.4%**	-	77.4%	0%	1.8%	0%	**15.2%**	-	2.8%	26.1%	0%	0%	**13.5%**	-	0%	22.4%	57.6%	0%	**25.4%**	-	16.2%
Bicycles on Road	0	0	1	0	**1**	-	2	0	0	0	**2**	-	0	3	0	0	**3**	-	0	3	1	0	**4**	-	10
% Bicycles on Road	0%	0%	1.0%	0%	**0.7%**	-	3.8%	0%	0%	0%	**0.7%**	-	0%	1.1%	0%	0%	**0.5%**	-	0%	0.9%	1.7%	0%	**0.9%**	-	0.7%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	40	-	-	-	-	-	1	-	-	-	-	-	16	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	64.5%	-	-	-	-	-	100%	-	-	-	-	-	88.9%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	22	-	-	-	-	-	0	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	35.5%	-	-	-	-	-	0%	-	-	-	-	-	11.1%	-

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

Gamma Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707679, Location: 49.288803, -122.99469

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
AM Peak (6 AM - 7 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707679, Location: 49.288803, -122.99469

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

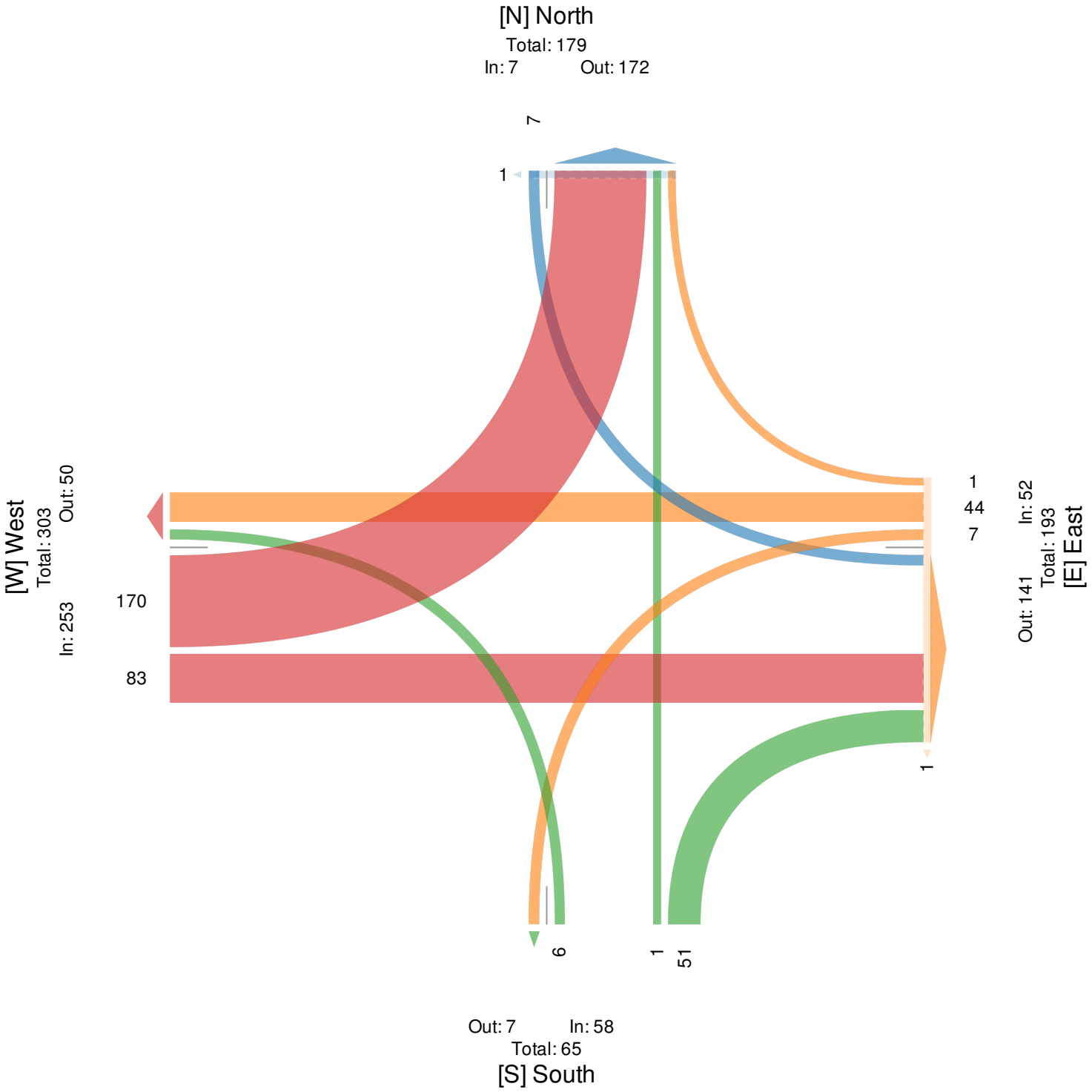
Leg / Direction	South Northbound						North Southbound						West Eastbound						East Westbound						
Time	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	L	T	R	U	**App**	Ped*	**Int**
2019-10-10 6:00AM	3	0	10	0	**13**	0	0	0	0	0	**0**	1	26	11	0	0	**37**	0	5	9	0	0	**14**	0	**64**
6:15AM	2	0	7	0	**9**	0	4	0	0	0	**4**	0	51	19	0	0	**70**	0	0	9	0	0	**9**	0	**92**
6:30AM	1	1	19	0	**21**	0	1	0	0	0	**1**	0	73	26	0	0	**99**	0	2	11	1	0	**14**	0	**135**
6:45AM	0	0	15	0	**15**	0	2	0	0	0	**2**	0	20	27	0	0	**47**	0	0	15	0	0	**15**	1	**79**
Total	6	1	51	0	**58**	0	7	0	0	0	**7**	1	170	83	0	0	**253**	0	7	44	1	0	**52**	1	**370**
% Approach	10.3%	1.7%	87.9%	0%	**-**	-	100%	0%	0%	0%	**-**	-	67.2%	32.8%	0%	0%	**-**	-	13.5%	84.6%	1.9%	0%	**-**	-	-
% Total	1.6%	0.3%	13.8%	0%	**15.7%**	-	1.9%	0%	0%	0%	**1.9%**	-	45.9%	22.4%	0%	0%	**68.4%**	-	1.9%	11.9%	0.3%	0%	**14.1%**	-	-
PHF	0.500	0.250	0.658	-	**0.679**	-	0.438	-	-	-	**0.438**	-	0.582	0.779	-	-	**0.640**	-	0.350	0.733	0.250	-	**0.867**	-	0.685
Motorcycles	0	0	1	0	**1**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	3
% Motorcycles	0%	0%	2.0%	0%	**1.7%**	-	0%	0%	0%	0%	**0%**	-	0%	2.4%	0%	0%	**0.8%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Lights	6	1	49	0	**56**	-	6	0	0	0	**6**	-	170	58	0	0	**228**	-	7	23	1	0	**31**	-	321
% Lights	100%	100%	96.1%	0%	**96.6%**	-	85.7%	0%	0%	0%	**85.7%**	-	100%	69.9%	0%	0%	**90.1%**	-	100%	52.3%	100%	0%	**59.6%**	-	86.8%
Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	1
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	2.3%	0%	0%	**1.9%**	-	0.3%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	0	**0**	-	1	0	0	0	**1**	-	0	21	0	0	**21**	-	0	20	0	0	**20**	-	42
% Buses	0%	0%	0%	0%	**0%**	-	14.3%	0%	0%	0%	**14.3%**	-	0%	25.3%	0%	0%	**8.3%**	-	0%	45.5%	0%	0%	**38.5%**	-	11.4%
Bicycles on Road	0	0	1	0	**1**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	3
% Bicycles on Road	0%	0%	2.0%	0%	**1.7%**	-	0%	0%	0%	0%	**0%**	-	0%	2.4%	0%	0%	**0.8%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	0%	-

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

Gamma Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
AM Peak (6 AM - 7 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707679, Location: 49.288803, -122.99469

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707679, Location: 49.288803, -122.99469

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

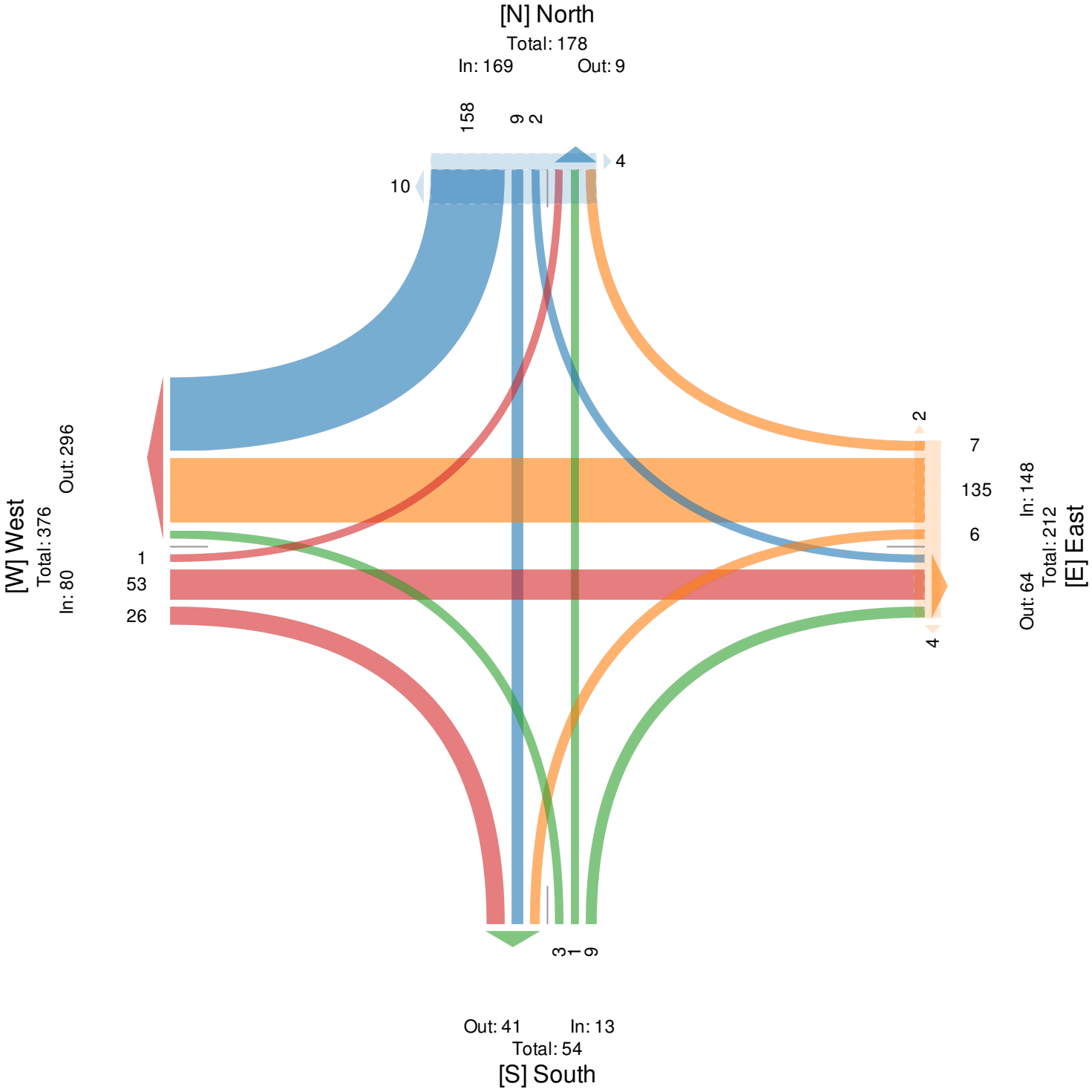
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 4:45PM	0	0	1	0	**1**	0	1	3	5	0	**9**	2	0	15	9	0	**24**	0	4	16	1	0	**21**	1	**55**
5:00PM	0	0	1	0	**1**	0	0	1	26	0	**27**	1	0	9	5	0	**14**	0	1	30	0	0	**31**	0	**73**
5:15PM	2	1	2	0	**5**	0	1	3	14	0	**18**	2	1	15	4	0	**20**	0	1	32	2	0	**35**	2	**78**
5:30PM	1	0	5	0	**6**	0	0	2	113	0	**115**	9	0	14	8	0	**22**	0	0	57	4	0	**61**	3	**204**
Total	3	1	9	0	**13**	0	2	9	158	0	**169**	14	1	53	26	0	**80**	0	6	135	7	0	**148**	6	**410**
% Approach	23.1%	7.7%	69.2%	0%	**-**	-	1.2%	5.3%	93.5%	0%	**-**	-	1.3%	66.3%	32.5%	0%	**-**	-	4.1%	91.2%	4.7%	0%	**-**	-	-
% Total	0.7%	0.2%	2.2%	0%	**3.2%**	-	0.5%	2.2%	38.5%	0%	**41.2%**	-	0.2%	12.9%	6.3%	0%	**19.5%**	-	1.5%	32.9%	1.7%	0%	**36.1%**	-	-
PHF	0.375	0.250	0.450	-	**0.542**	-	0.250	0.750	0.350	-	**0.365**	-	0.250	0.883	0.722	-	**0.833**	-	0.375	0.588	0.438	-	**0.602**	-	0.500
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	4	0	0	**4**	-	5
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	1.9%	0%	0%	**1.3%**	-	0%	3.0%	0%	0%	**2.7%**	-	1.2%
Lights	3	0	9	0	**12**	-	1	9	157	0	**167**	-	1	19	25	0	**45**	-	6	100	6	0	**112**	-	336
% Lights	100%	0%	100%	0%	**92.3%**	-	50.0%	100%	99.4%	0%	**98.8%**	-	100%	35.8%	96.2%	0%	**56.3%**	-	100%	74.1%	85.7%	0%	**75.7%**	-	82.0%
Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	1	0	**2**	-	0	3	0	0	**3**	-	5
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	1.9%	3.8%	0%	**2.5%**	-	0%	2.2%	0%	0%	**2.0%**	-	1.2%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	5	0	0	**5**	-	0	0	0	0	**0**	-	5
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	9.4%	0%	0%	**6.3%**	-	0%	0%	0%	0%	**0%**	-	1.2%
Buses	0	1	0	0	**1**	-	0	0	1	0	**1**	-	0	27	0	0	**27**	-	0	27	1	0	**28**	-	57
% Buses	0%	100%	0%	0%	**7.7%**	-	0%	0%	0.6%	0%	**0.6%**	-	0%	50.9%	0%	0%	**33.8%**	-	0%	20.0%	14.3%	0%	**18.9%**	-	13.9%
Bicycles on Road	0	0	0	0	**0**	-	1	0	0	0	**1**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	2
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	50.0%	0%	0%	0%	**0.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0.7%	0%	0%	**0.7%**	-	0.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	5	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	50.0%	-	-	-	-	-	-	-	-	-	-	-	83.3%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	7	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	50.0%	-	-	-	-	-	-	-	-	-	-	-	16.7%	-

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

Gamma Ave and Penzance Dr. - TMC
Thu Oct 10, 2019
PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707679, Location: 49.288803, -122.99469

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 709225, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

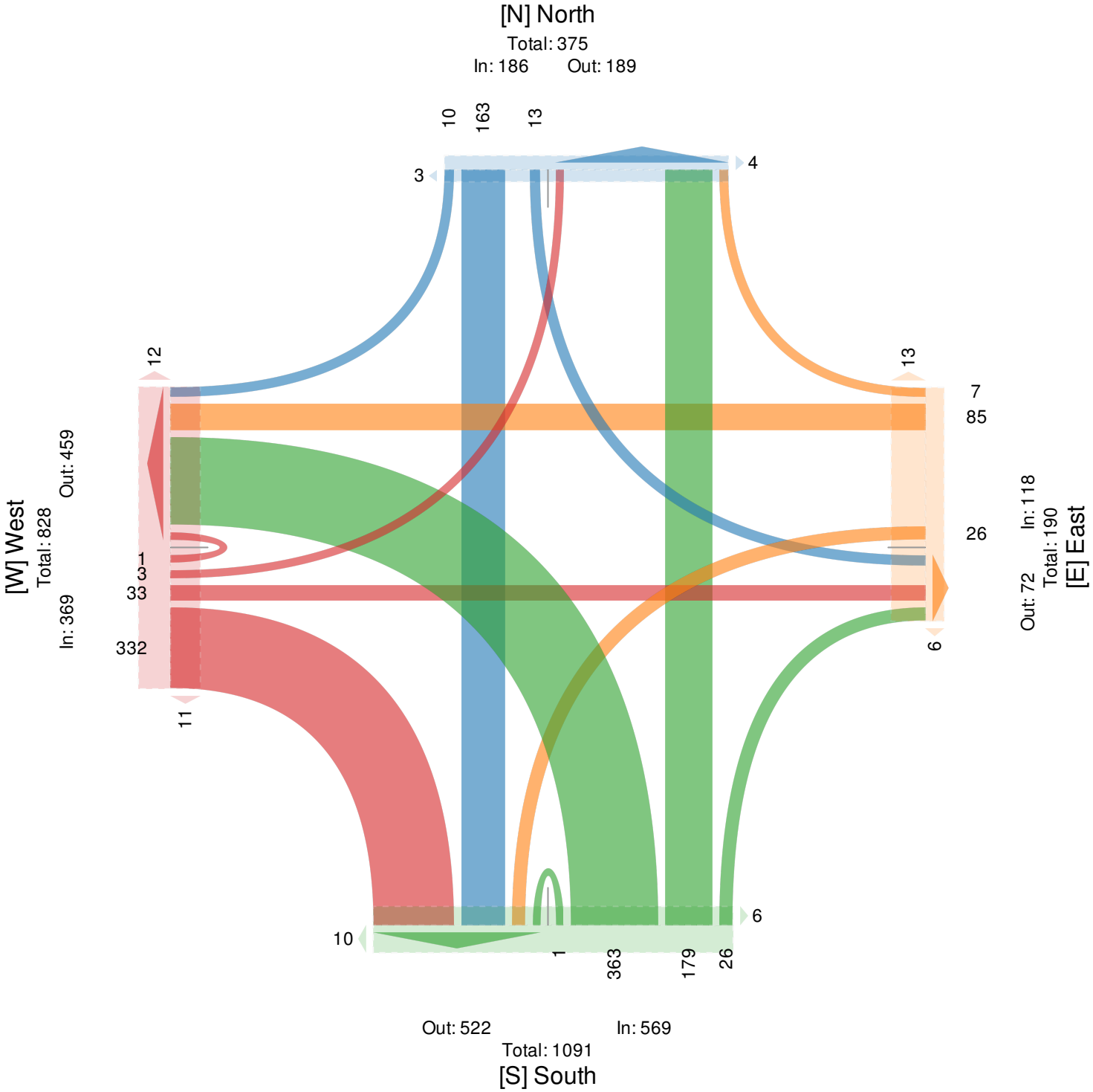
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 6:00AM	8	13	1	0	**22**	1	0	7	0	0	**7**	0	0	0	1	0	**1**	1	2	1	0	0	**3**	0	**33**
6:15AM	33	9	1	0	**43**	0	0	3	3	0	**6**	0	1	0	1	1	**3**	0	0	1	0	0	**1**	1	**53**
6:30AM	44	21	0	0	**65**	0	0	2	0	0	**2**	0	1	0	1	0	**2**	0	0	0	0	0	**0**	0	**69**
6:45AM	21	14	0	0	**35**	0	0	1	0	0	**1**	0	0	0	2	0	**2**	0	0	5	0	0	**5**	2	**43**
Hourly Total	106	57	2	0	**165**	1	0	13	3	0	**16**	0	2	0	5	1	**8**	1	2	7	0	0	**9**	3	**198**
7:00AM	22	11	0	0	**33**	2	0	1	0	0	**1**	0	0	0	0	0	**0**	0	1	5	0	0	**6**	0	**40**
7:15AM	19	8	1	0	**28**	0	0	2	0	0	**2**	0	0	1	0	0	**1**	0	2	2	0	0	**4**	0	**35**
7:30AM	29	7	1	0	**37**	0	0	4	1	0	**5**	0	0	0	0	0	**0**	0	1	11	0	0	**12**	0	**54**
7:45AM	34	8	0	0	**42**	0	0	6	1	0	**7**	0	0	1	1	0	**2**	0	1	7	0	0	**8**	2	**59**
Hourly Total	104	34	2	0	**140**	2	0	13	2	0	**15**	0	0	2	1	0	**3**	0	5	25	0	0	**30**	2	**188**
8:00AM	22	6	0	0	**28**	1	0	11	0	0	**11**	0	0	0	0	0	**0**	1	4	8	0	0	**12**	1	**51**
8:15AM	31	6	0	0	**37**	3	1	8	1	0	**10**	0	0	0	3	0	**3**	1	0	5	0	0	**5**	1	**55**
8:30AM	31	6	1	1	**39**	2	0	10	0	0	**10**	0	1	1	1	0	**3**	2	1	14	0	0	**15**	0	**67**
8:45AM	25	10	0	0	**35**	0	0	9	1	0	**10**	0	0	2	2	0	**4**	5	0	13	0	0	**13**	1	**62**
Hourly Total	109	28	1	1	**139**	6	1	38	2	0	**41**	0	1	3	6	0	**10**	9	5	40	0	0	**45**	3	**235**
4:00PM	5	4	2	0	**11**	0	2	16	1	0	**19**	0	0	1	35	0	**36**	1	0	1	2	0	**3**	0	**69**
4:15PM	3	4	2	0	**9**	3	0	9	0	0	**9**	0	0	3	48	0	**51**	2	1	0	1	0	**2**	2	**71**
4:30PM	3	6	1	0	**10**	0	1	9	0	0	**10**	0	0	3	36	0	**39**	0	2	3	1	0	**6**	0	**65**
4:45PM	3	3	2	0	**8**	0	2	15	0	0	**17**	0	0	4	30	0	**34**	1	4	1	0	0	**5**	0	**64**
Hourly Total	14	17	7	0	**38**	3	5	49	1	0	**55**	0	0	11	149	0	**160**	4	7	5	4	0	**16**	2	**269**
5:00PM	1	6	4	0	**11**	0	1	5	0	0	**6**	1	0	4	24	0	**28**	0	1	1	0	0	**2**	1	**47**
5:15PM	2	8	2	0	**12**	1	1	7	0	0	**8**	0	0	4	27	0	**31**	2	1	0	0	0	**1**	1	**52**
5:30PM	7	6	3	0	**16**	0	1	10	0	0	**11**	2	0	0	54	0	**54**	2	1	1	0	0	**2**	1	**83**
5:45PM	4	7	3	0	**14**	1	2	2	0	0	**4**	0	0	2	23	0	**25**	2	0	2	0	0	**2**	1	**45**
Hourly Total	14	27	12	0	**53**	2	5	24	0	0	**29**	3	0	10	128	0	**138**	6	3	4	0	0	**7**	4	**227**
6:00PM	5	2	0	0	**7**	0	1	4	1	0	**6**	0	0	1	22	0	**23**	0	1	0	2	0	**3**	1	**39**
6:15PM	3	2	1	0	**6**	1	0	9	0	0	**9**	1	0	2	11	0	**13**	2	1	1	0	0	**2**	1	**30**
6:30PM	6	3	0	0	**9**	1	1	6	1	0	**8**	1	0	3	7	0	**10**	0	1	0	0	0	**1**	2	**28**
6:45PM	2	9	1	0	**12**	0	0	7	0	0	**7**	2	0	1	3	0	**4**	1	1	3	1	0	**5**	1	**28**
Hourly Total	16	16	2	0	**34**	2	2	26	2	0	**30**	4	0	7	43	0	**50**	3	4	4	3	0	**11**	5	**125**
Total	363	179	26	1	**569**	16	13	163	10	0	**186**	7	3	33	332	1	**369**	23	26	85	7	0	**118**	19	**1242**
% Approach	63.8%	31.5%	4.6%	0.2%	**-**	-	7.0%	87.6%	5.4%	0%	**-**	-	0.8%	8.9%	90.0%	0.3%	**-**	-	22.0%	72.0%	5.9%	0%	**-**	-	-
% Total	29.2%	14.4%	2.1%	0.1%	**45.8%**	-	1.0%	13.1%	0.8%	0%	**15.0%**	-	0.2%	2.7%	26.7%	0.1%	**29.7%**	-	2.1%	6.8%	0.6%	0%	**9.5%**	-	-
Motorcycles	0	2	1	0	**3**	-	0	0	0	0	**0**	-	0	0	3	0	**3**	-	1	0	0	0	**1**	-	7
% Motorcycles	0%	1.1%	3.8%	0%	**0.5%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.9%	0%	**0.8%**	-	3.8%	0%	0%	0%	**0.8%**	-	0.6%
Lights	361	174	24	1	**560**	-	12	156	10	0	**178**	-	3	33	327	1	**364**	-	25	84	6	0	**115**	-	1217
% Lights	99.4%	97.2%	92.3%	100%	**98.4%**	-	92.3%	95.7%	100%	0%	**95.7%**	-	100%	100%	98.5%	100%	**98.6%**	-	96.2%	98.8%	85.7%	0%	**97.5%**	-	98.0%
Single-Unit Trucks	2	1	0	0	**3**	-	0	3	0	0	**3**	-	0	0	2	0	**2**	-	0	1	1	0	**2**	-	10
% Single-Unit Trucks	0.6%	0.6%	0%	0%	**0.5%**	-	0%	1.8%	0%	0%	**1.6%**	-	0%	0%	0.6%	0%	**0.5%**	-	0%	1.2%	14.3%	0%	**1.7%**	-	0.8%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Buses	0%	0.6%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Bicycles on Road	0	1	1	0	**2**	-	1	4	0	0	**5**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	7
% Bicycles on Road	0%	0.6%	3.8%	0%	**0.4%**	-	7.7%	2.5%	0%	0%	**2.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.6%
Pedestrians	-	-	-	-	-	16	-	-	-	-	-	7	-	-	-	-	-	23	-	-	-	-	-	18	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	94.7%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	5.3%	-

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

Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 709225, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 709225, Location: 49.286357, -122.994609

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

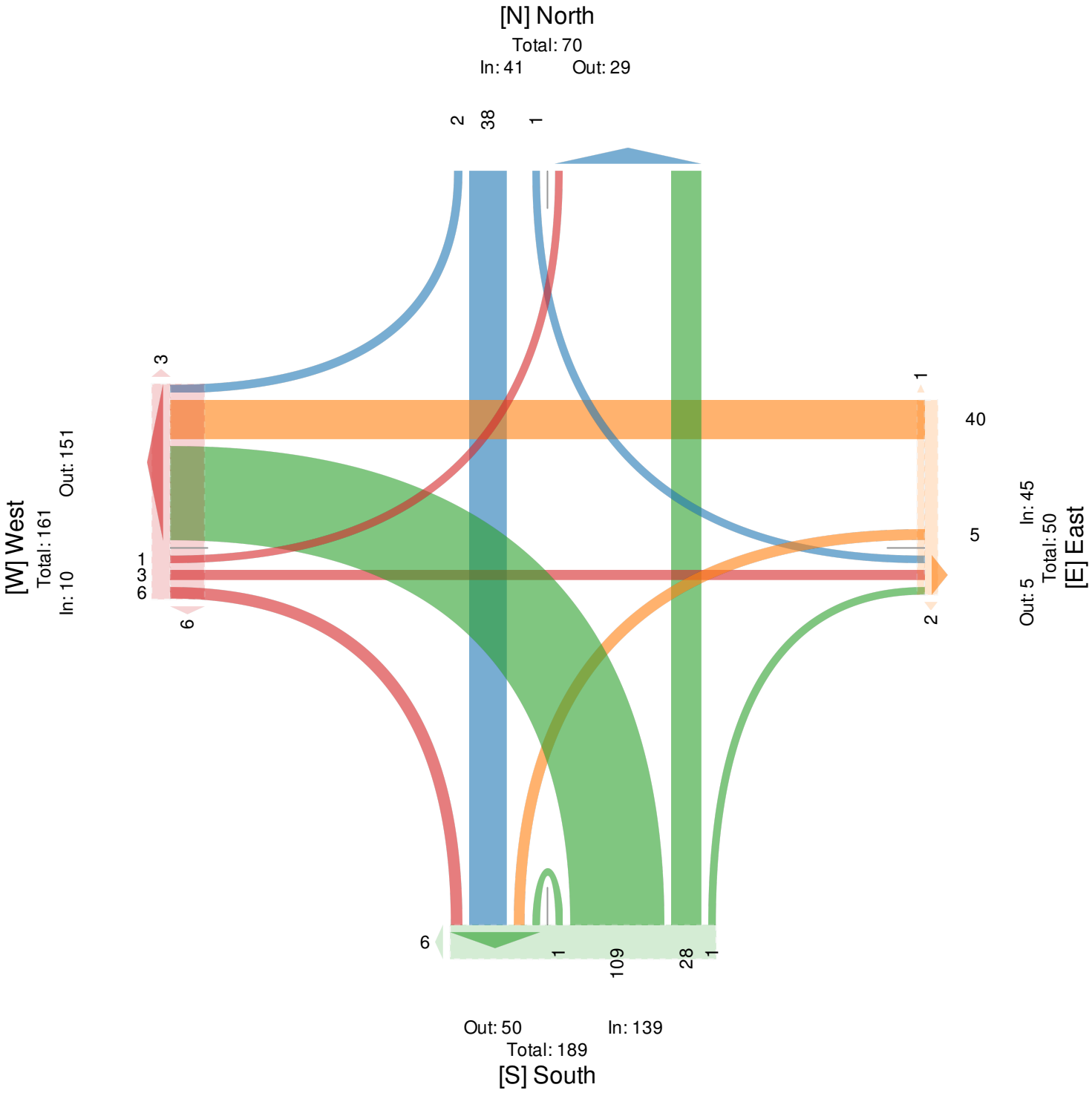
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 8:00AM	22	6	0	0	**28**	1	0	11	0	0	**11**	0	0	0	0	0	**0**	1	4	8	0	0	**12**	1	**51**
8:15AM	31	6	0	0	**37**	3	1	8	1	0	**10**	0	0	0	3	0	**3**	1	0	5	0	0	**5**	1	**55**
8:30AM	31	6	1	1	**39**	2	0	10	0	0	**10**	0	1	1	1	0	**3**	2	1	14	0	0	**15**	0	**67**
8:45AM	25	10	0	0	**35**	0	0	9	1	0	**10**	0	0	2	2	0	**4**	5	0	13	0	0	**13**	1	**62**
Total	109	28	1	1	**139**	6	1	38	2	0	**41**	0	1	3	6	0	**10**	9	5	40	0	0	**45**	3	**235**
% Approach	78.4%	20.1%	0.7%	0.7%	-	-	2.4%	92.7%	4.9%	0%	-	-	10.0%	30.0%	60.0%	0%	-	-	11.1%	88.9%	0%	0%	-	-	-
% Total	46.4%	11.9%	0.4%	0.4%	**59.1%**	-	0.4%	16.2%	0.9%	0%	**17.4%**	-	0.4%	1.3%	2.6%	0%	**4.3%**	-	2.1%	17.0%	0%	0%	**19.1%**	-	-
PHF	0.879	0.700	0.250	0.250	**0.891**	-	0.250	0.864	0.500	-	**0.932**	-	0.250	0.375	0.500	-	**0.625**	-	0.313	0.714	-	-	**0.750**	-	0.877
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Lights	109	27	1	1	**138**	-	1	38	2	0	**41**	-	1	3	6	0	**10**	-	5	39	0	0	**44**	-	233
% Lights	100%	96.4%	100%	100%	**99.3%**	-	100%	100%	100%	0%	**100%**	-	100%	100%	100%	0%	**100%**	-	100%	97.5%	0%	0%	**97.8%**	-	99.1%
Single-Unit Trucks	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	2
% Single-Unit Trucks	0%	3.6%	0%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	2.5%	0%	0%	**2.2%**	-	0.9%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	9	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 709225, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 709225, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

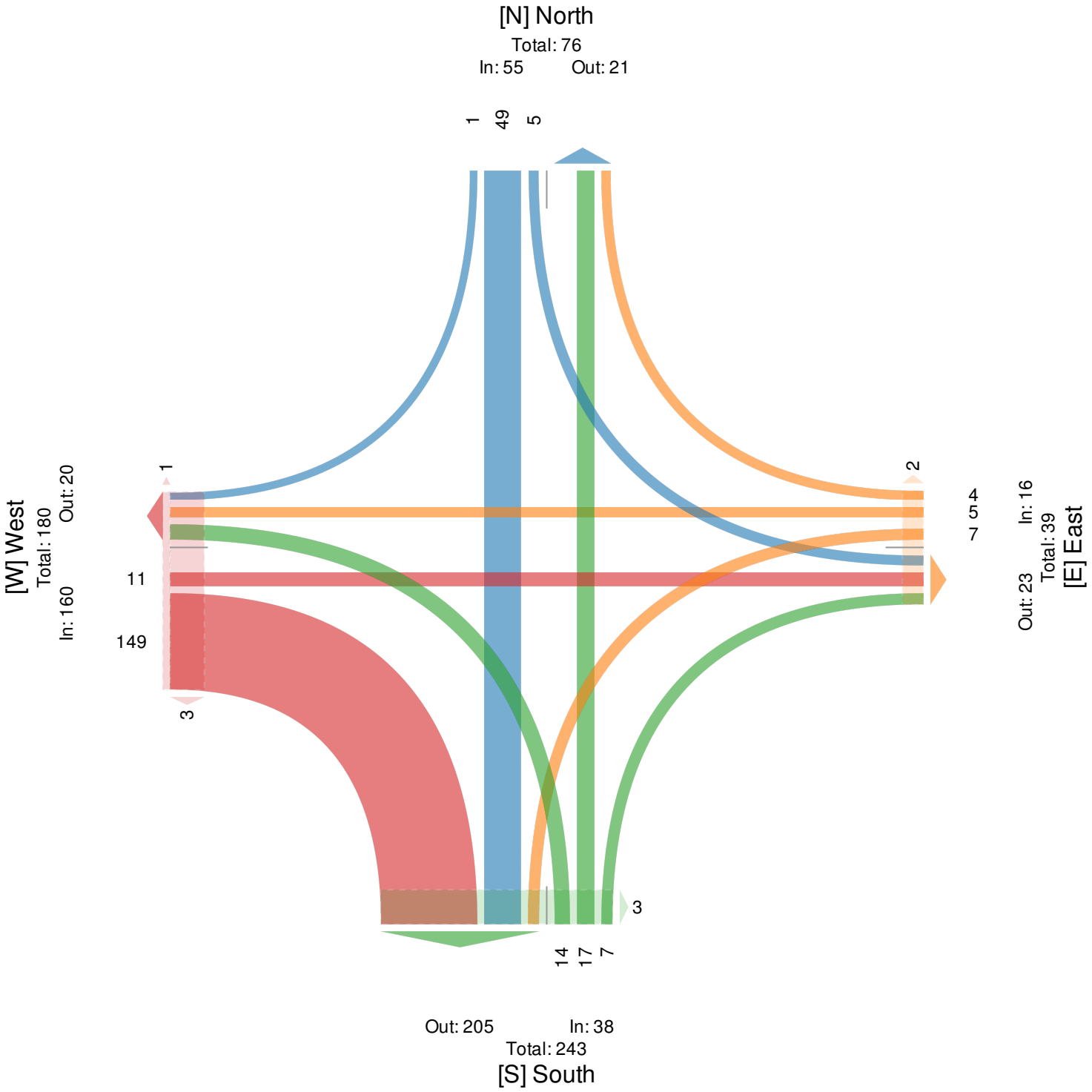
Leg / Direction	South Northbound						North Southbound						West Eastbound						East Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-10 4:00PM	5	4	2	0	**11**	0	2	16	1	0	**19**	0	0	1	35	0	**36**	1	0	1	2	0	**3**	0	**69**
4:15PM	3	4	2	0	**9**	3	0	9	0	0	**9**	0	0	3	48	0	**51**	2	1	0	1	0	**2**	2	**71**
4:30PM	3	6	1	0	**10**	0	1	9	0	0	**10**	0	0	3	36	0	**39**	0	2	3	1	0	**6**	0	**65**
4:45PM	3	3	2	0	**8**	0	2	15	0	0	**17**	0	0	4	30	0	**34**	1	4	1	0	0	**5**	0	**64**
Total	14	17	7	0	**38**	3	5	49	1	0	**55**	0	0	11	149	0	**160**	4	7	5	4	0	**16**	2	**269**
% Approach	36.8%	44.7%	18.4%	0%	**-**	-	9.1%	89.1%	1.8%	0%	**-**	-	0%	6.9%	93.1%	0%	**-**	-	43.8%	31.3%	25.0%	0%	**-**	-	**-**
% Total	5.2%	6.3%	2.6%	0%	**14.1%**	-	1.9%	18.2%	0.4%	0%	**20.4%**	-	0%	4.1%	55.4%	0%	**59.5%**	-	2.6%	1.9%	1.5%	0%	**5.9%**	-	-
PHF	0.700	0.708	0.875	-	**0.864**	-	0.625	0.766	0.250	-	**0.724**	-	-	0.688	0.776	-	**0.784**	-	0.438	0.417	0.500	-	**0.667**	-	0.947
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	0	0	0	0	**0**	-	1
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0.7%	0%	**0.6%**	-	0%	0%	0%	0%	**0%**	-	0.4%
Lights	13	17	7	0	**37**	-	5	48	1	0	**54**	-	0	11	148	0	**159**	-	7	5	4	0	**16**	-	266
% Lights	92.9%	100%	100%	0%	**97.4%**	-	100%	98.0%	100%	0%	**98.2%**	-	0%	100%	99.3%	0%	**99.4%**	-	100%	100%	100%	0%	**100%**	-	98.9%
Single-Unit Trucks	1	0	0	0	**1**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	2
% Single-Unit Trucks	7.1%	0%	0%	0%	**2.6%**	-	0%	2.0%	0%	0%	**1.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.7%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 709225, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707678, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

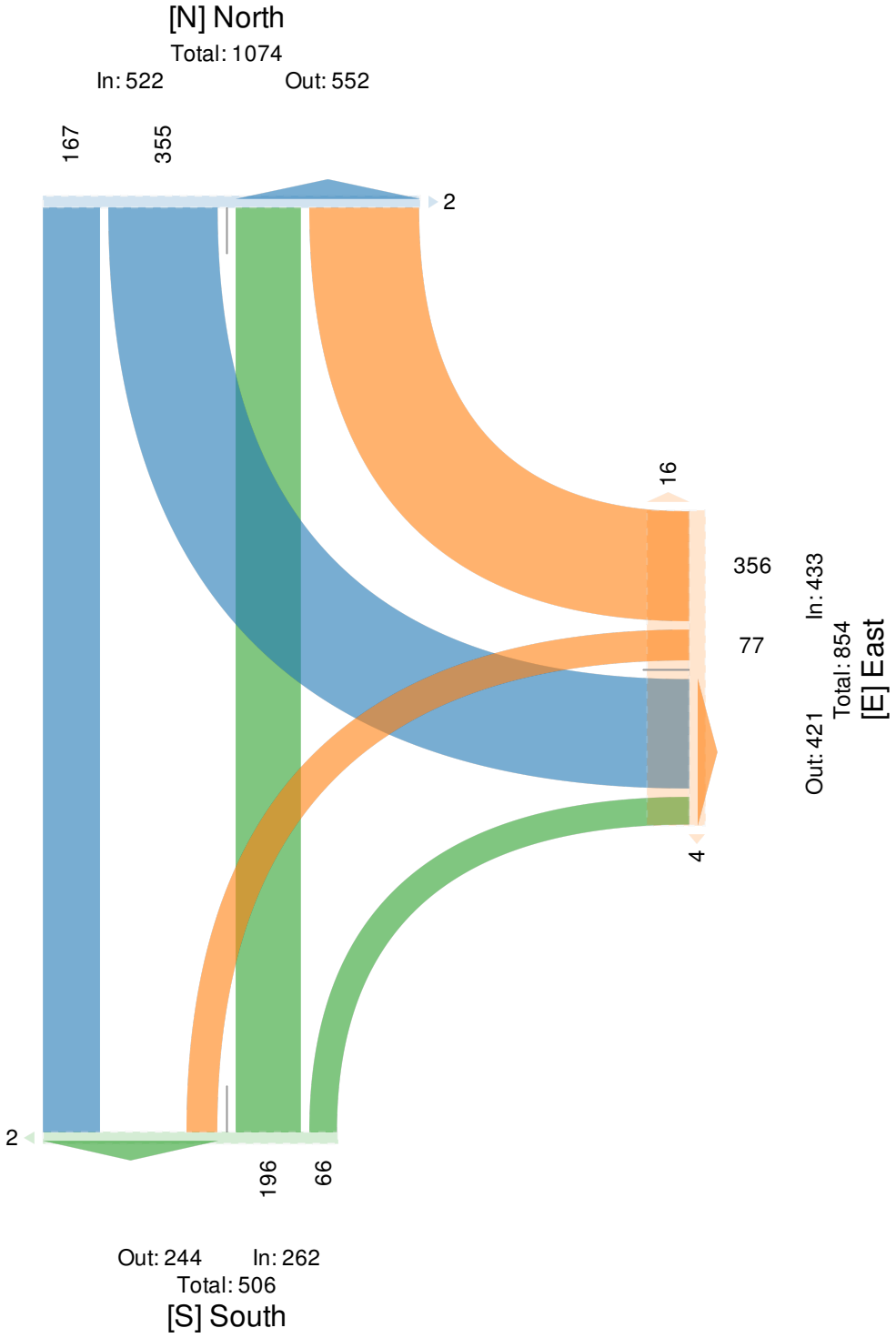
Leg	South					North					East					
Direction	Northbound					Southbound					Westbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2019-10-10 6:00AM	15	0	0	**15**	0	2	8	0	**10**	1	1	7	0	**8**	0	**33**
6:15AM	9	1	0	**10**	0	1	1	0	**2**	0	5	23	0	**28**	0	**40**
6:30AM	21	0	0	**21**	0	1	2	0	**3**	0	2	40	0	**42**	0	**66**
6:45AM	7	2	0	**9**	0	1	3	0	**4**	0	0	28	0	**28**	3	**41**
Hourly Total	52	3	0	**55**	0	5	14	0	**19**	1	8	98	0	**106**	3	**180**
7:00AM	9	1	0	**10**	0	0	2	0	**2**	0	6	23	0	**29**	0	**41**
7:15AM	4	1	0	**5**	0	2	2	0	**4**	0	2	25	0	**27**	0	**36**
7:30AM	5	0	0	**5**	0	0	5	0	**5**	0	3	31	0	**34**	0	**44**
7:45AM	6	2	0	**8**	0	1	7	0	**8**	0	2	36	0	**38**	2	**54**
Hourly Total	24	4	0	**28**	0	3	16	0	**19**	0	13	115	0	**128**	2	**175**
8:00AM	6	3	0	**9**	0	5	10	0	**15**	0	6	22	0	**28**	0	**52**
8:15AM	7	3	0	**10**	0	4	6	0	**10**	0	8	30	0	**38**	1	**58**
8:30AM	9	3	0	**12**	0	6	7	0	**13**	0	5	29	0	**34**	0	**59**
8:45AM	15	2	0	**17**	0	5	6	0	**11**	0	6	20	0	**26**	1	**54**
Hourly Total	37	11	0	**48**	0	20	29	0	**49**	0	25	101	0	**126**	2	**223**
4:00PM	8	2	0	**10**	0	37	14	0	**51**	0	2	4	0	**6**	2	**67**
4:15PM	8	6	0	**14**	1	45	14	0	**59**	0	2	2	0	**4**	1	**77**
4:30PM	4	1	0	**5**	0	36	11	0	**47**	0	1	5	0	**6**	0	**58**
4:45PM	6	5	0	**11**	0	35	14	0	**49**	0	3	2	0	**5**	0	**65**
Hourly Total	26	14	0	**40**	1	153	53	0	**206**	0	8	13	0	**21**	3	**267**
5:00PM	9	6	0	**15**	0	23	6	0	**29**	0	5	1	0	**6**	1	**50**
5:15PM	9	8	0	**17**	0	26	10	0	**36**	1	2	3	0	**5**	0	**58**
5:30PM	8	4	0	**12**	0	53	12	0	**65**	0	3	8	0	**11**	0	**88**
5:45PM	9	4	0	**13**	0	22	3	0	**25**	0	4	5	0	**9**	3	**47**
Hourly Total	35	22	0	**57**	0	124	31	0	**155**	1	14	17	0	**31**	4	**243**
6:00PM	4	2	0	**6**	0	22	6	0	**28**	0	2	3	0	**5**	1	**39**
6:15PM	4	3	0	**7**	0	16	5	0	**21**	0	5	2	0	**7**	2	**35**
6:30PM	6	3	0	**9**	0	8	6	0	**14**	0	0	3	0	**3**	1	**26**
6:45PM	8	4	0	**12**	1	4	7	0	**11**	0	2	4	0	**6**	2	**29**
Hourly Total	22	12	0	**34**	1	50	24	0	**74**	0	9	12	0	**21**	6	**129**
Total	196	66	0	**262**	2	355	167	0	**522**	2	77	356	0	**433**	20	**1217**
% Approach	74.8%	25.2%	0%	-	-	68.0%	32.0%	0%	-	-	17.8%	82.2%	0%	-	-	-
% Total	16.1%	5.4%	0%	**21.5%**	-	29.2%	13.7%	0%	**42.9%**	-	6.3%	29.3%	0%	**35.6%**	-	-
Motorcycles	2	0	0	**2**	-	2	0	0	**2**	-	0	1	0	**1**	-	5
% Motorcycles	1.0%	0%	0%	**0.8%**	-	0.6%	0%	0%	**0.4%**	-	0%	0.3%	0%	**0.2%**	-	0.4%
Lights	189	50	0	**239**	-	351	159	0	**510**	-	65	354	0	**419**	-	1168
% Lights	96.4%	75.8%	0%	**91.2%**	-	98.9%	95.2%	0%	**97.7%**	-	84.4%	99.4%	0%	**96.8%**	-	96.0%
Single-Unit Trucks	2	2	0	**4**	-	1	4	0	**5**	-	1	1	0	**2**	-	11
% Single-Unit Trucks	1.0%	3.0%	0%	**1.5%**	-	0.3%	2.4%	0%	**1.0%**	-	1.3%	0.3%	0%	**0.5%**	-	0.9%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	1	13	0	**14**	-	0	0	0	**0**	-	11	0	0	**11**	-	25
% Buses	0.5%	19.7%	0%	**5.3%**	-	0%	0%	0%	**0%**	-	14.3%	0%	0%	**2.5%**	-	2.1%
Bicycles on Road	2	1	0	**3**	-	1	4	0	**5**	-	0	0	0	**0**	-	8
% Bicycles on Road	1.0%	1.5%	0%	**1.1%**	-	0.3%	2.4%	0%	**1.0%**	-	0%	0%	0%	**0%**	-	0.7%
Pedestrians	-	-	-	-	2	-	-	-	-	2	-	-	-	-	19	
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	95.0%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	1	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	5.0%	-

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

Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707678, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707678, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

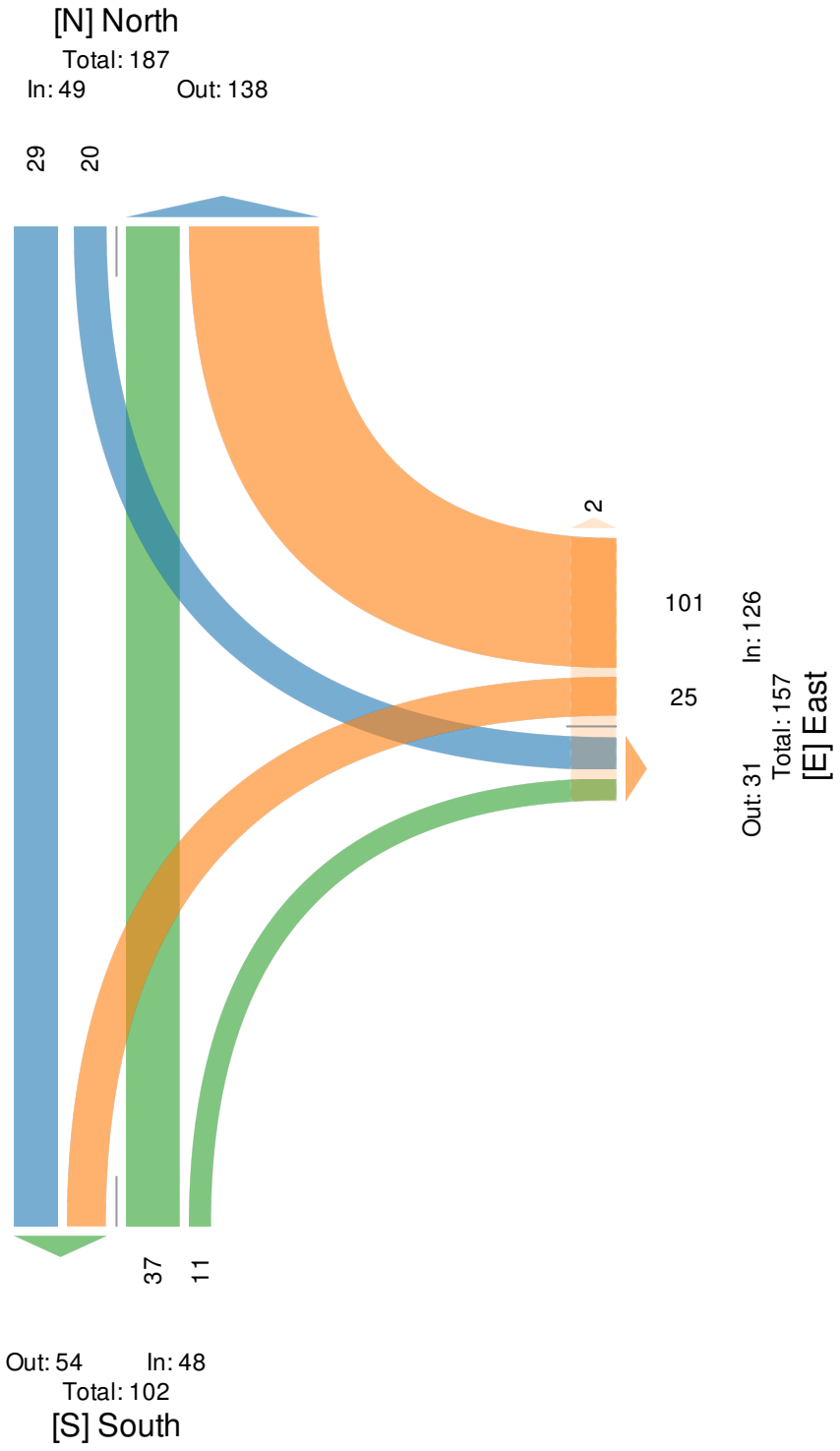
Leg / Direction	South Northbound					North Southbound					East Westbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2019-10-10 8:00AM	6	3	0	**9**	0	5	10	0	**15**	0	6	22	0	**28**	0	**52**
8:15AM	7	3	0	**10**	0	4	6	0	**10**	0	8	30	0	**38**	1	**58**
8:30AM	9	3	0	**12**	0	6	7	0	**13**	0	5	29	0	**34**	0	**59**
8:45AM	15	2	0	**17**	0	5	6	0	**11**	0	6	20	0	**26**	1	**54**
Total	37	11	0	**48**	0	20	29	0	**49**	0	25	101	0	**126**	2	**223**
% Approach	77.1%	22.9%	0%	-	-	40.8%	59.2%	0%	-	-	19.8%	80.2%	0%	-	-	-
% Total	16.6%	4.9%	0%	**21.5%**	-	9.0%	13.0%	0%	**22.0%**	-	11.2%	45.3%	0%	**56.5%**	-	-
PHF	0.617	0.917	-	**0.706**	-	0.833	0.725	-	**0.817**	-	0.781	0.842	-	**0.829**	-	0.945
Motorcycles	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Lights	36	9	0	**45**	-	20	29	0	**49**	-	22	101	0	**123**	-	217
% Lights	97.3%	81.8%	0%	**93.8%**	-	100%	100%	0%	**100%**	-	88.0%	100%	0%	**97.6%**	-	97.3%
Single-Unit Trucks	1	0	0	**1**	-	0	0	0	**0**	-	0	0	0	**0**	-	1
% Single-Unit Trucks	2.7%	0%	0%	**2.1%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0.4%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	2	0	**2**	-	0	0	0	**0**	-	3	0	0	**3**	-	5
% Buses	0%	18.2%	0%	**4.2%**	-	0%	0%	0%	**0%**	-	12.0%	0%	0%	**2.4%**	-	2.2%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%	-

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

Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707678, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707678, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

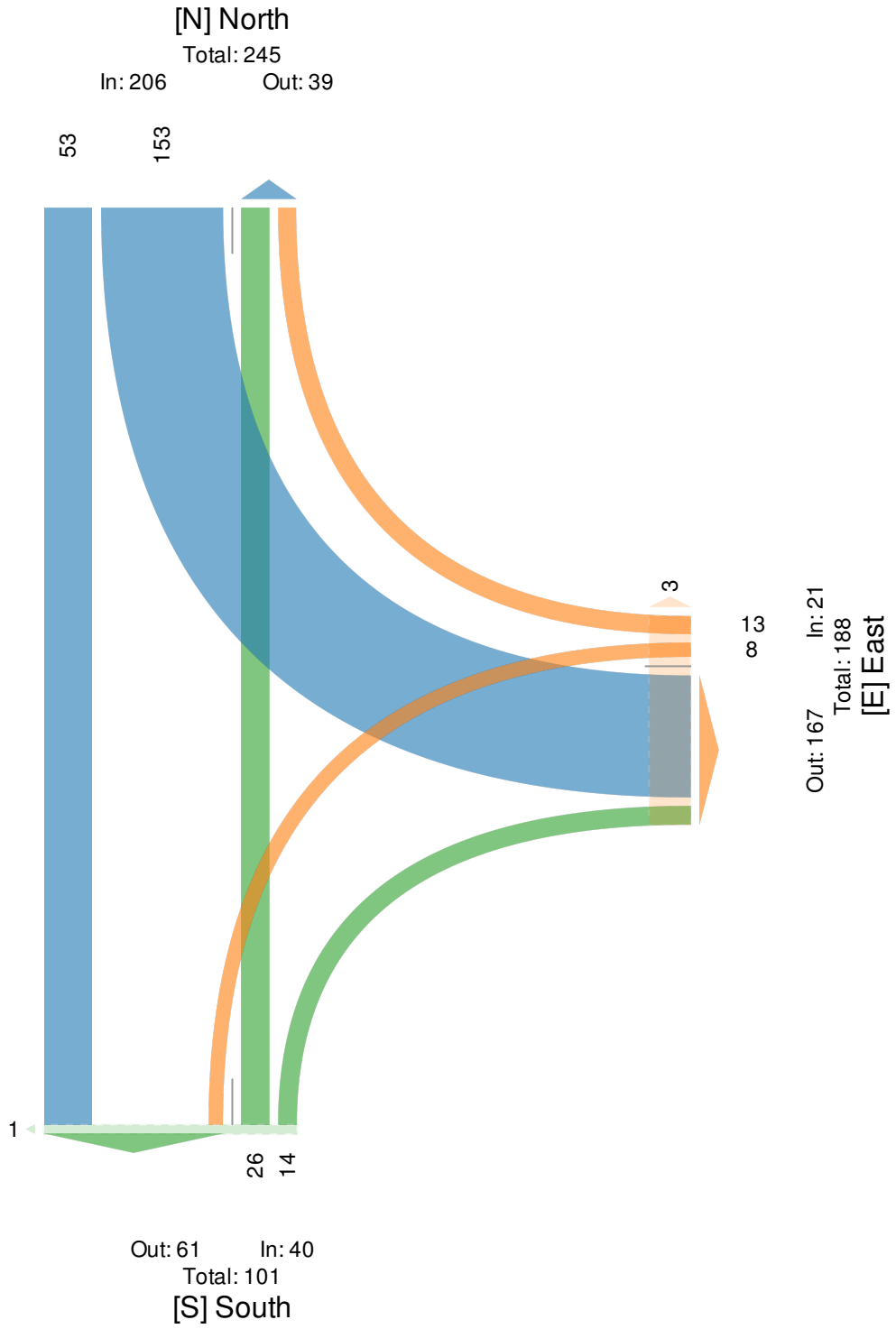
Leg	South					North					East					
Direction	Northbound					Southbound					Westbound					
Time	T	R	U	**App**	Ped*	L	T	U	**App**	Ped*	L	R	U	**App**	Ped*	**Int**
2019-10-10 4:00PM	8	2	0	**10**	0	37	14	0	**51**	0	2	4	0	**6**	2	**67**
4:15PM	8	6	0	**14**	1	45	14	0	**59**	0	2	2	0	**4**	1	**77**
4:30PM	4	1	0	**5**	0	36	11	0	**47**	0	1	5	0	**6**	0	**58**
4:45PM	6	5	0	**11**	0	35	14	0	**49**	0	3	2	0	**5**	0	**65**
Total	26	14	0	**40**	1	153	53	0	**206**	0	8	13	0	**21**	3	**267**
% Approach	65.0%	35.0%	0%	-	-	74.3%	25.7%	0%	-	-	38.1%	61.9%	0%	-	-	-
% Total	9.7%	5.2%	0%	**15.0%**	-	57.3%	19.9%	0%	**77.2%**	-	3.0%	4.9%	0%	**7.9%**	-	-
PHF	0.813	0.583	-	**0.714**	-	0.850	0.946	-	**0.873**	-	0.667	0.650	-	**0.875**	-	0.867
Motorcycles	0	0	0	**0**	-	1	0	0	**1**	-	0	0	0	**0**	-	1
% Motorcycles	0%	0%	0%	**0%**	-	0.7%	0%	0%	**0.5%**	-	0%	0%	0%	**0%**	-	0.4%
Lights	25	10	0	**35**	-	152	52	0	**204**	-	6	13	0	**19**	-	258
% Lights	96.2%	71.4%	0%	**87.5%**	-	99.3%	98.1%	0%	**99.0%**	-	75.0%	100%	0%	**90.5%**	-	96.6%
Single-Unit Trucks	1	1	0	**2**	-	0	1	0	**1**	-	0	0	0	**0**	-	3
% Single-Unit Trucks	3.8%	7.1%	0%	**5.0%**	-	0%	1.9%	0%	**0.5%**	-	0%	0%	0%	**0%**	-	1.1%
Articulated Trucks	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Buses	0	3	0	**3**	-	0	0	0	**0**	-	2	0	0	**2**	-	5
% Buses	0%	21.4%	0%	**7.5%**	-	0%	0%	0%	**0%**	-	25.0%	0%	0%	**9.5%**	-	1.9%
Bicycles on Road	0	0	0	**0**	-	0	0	0	**0**	-	0	0	0	**0**	-	0
% Bicycles on Road	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%	0%	0%	**0%**	-	0%
Pedestrians	-	-	-	-	1	-	-	-	-	0	-	-	-	-	3	
% Pedestrians	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	0%	-

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

Gamma Ave and Empire Dr. - TMC
Thu Oct 10, 2019
PM Peak (4 PM - 5 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 707678, Location: 49.286357, -122.994609

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



North Gamma Ave and Albert St - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706448, Location: 49.281861, -122.994706

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

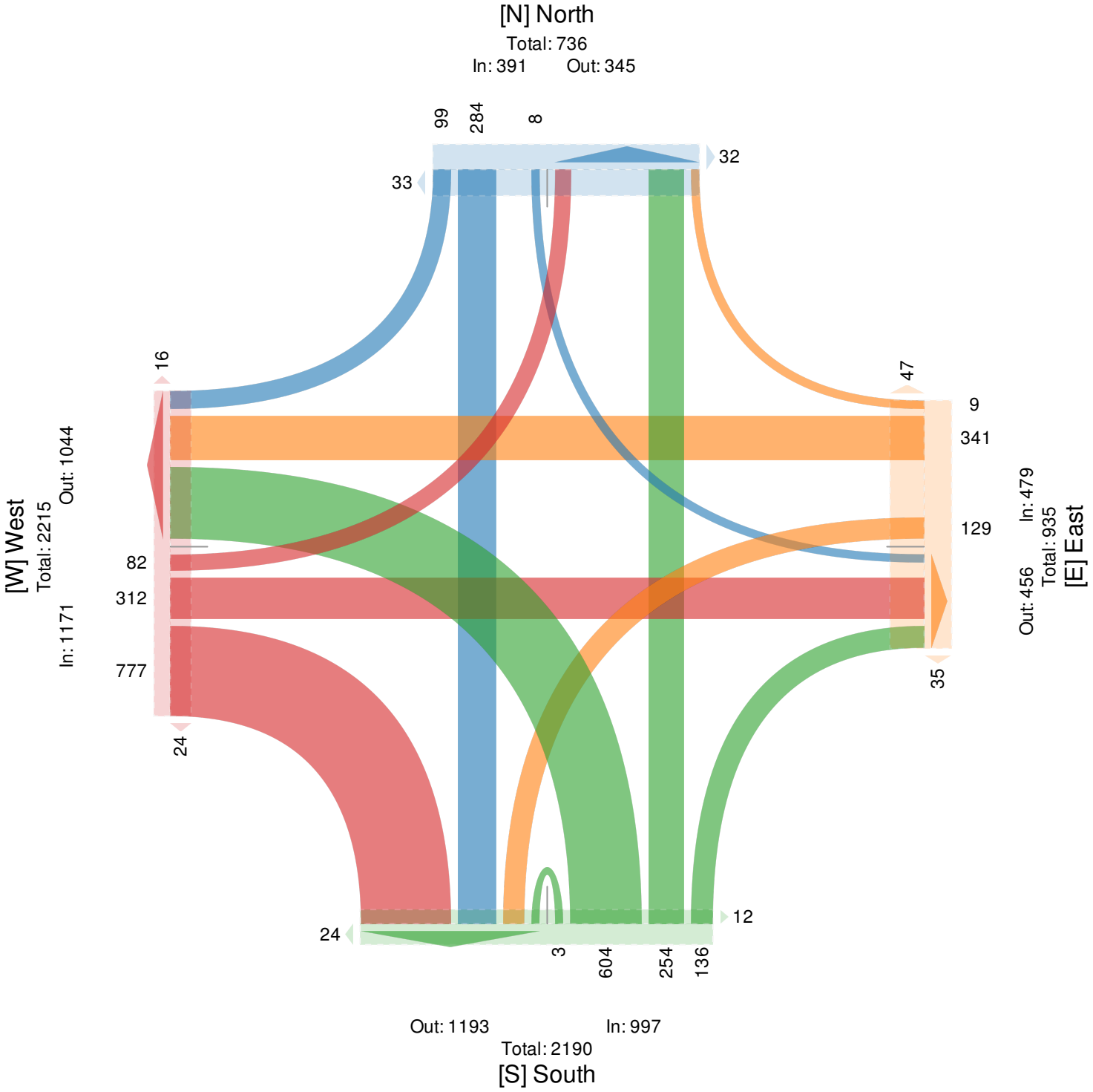
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 6:00AM	8	13	0	0	**21**	0	0	11	3	0	**14**	0	1	1	2	0	**4**	0	2	5	0	0	**7**	2	**46**
6:15AM	7	10	1	0	**18**	0	0	3	1	0	**4**	4	0	1	1	0	**2**	0	3	7	0	0	**10**	1	**34**
6:30AM	20	19	1	0	**40**	1	0	4	2	0	**6**	1	3	0	4	0	**7**	0	4	11	0	0	**15**	1	**68**
6:45AM	13	10	2	0	**25**	0	0	6	1	0	**7**	3	1	2	9	0	**12**	0	4	10	0	0	**14**	2	**58**
Hourly Total	48	52	4	0	**104**	1	0	24	7	0	**31**	8	5	4	16	0	**25**	0	13	33	0	0	**46**	6	**206**
7:00AM	18	7	3	0	**28**	1	0	5	5	0	**10**	2	3	0	9	0	**12**	1	5	21	0	0	**26**	2	**76**
7:15AM	32	7	2	0	**41**	0	0	7	4	0	**11**	0	1	0	10	0	**11**	2	4	33	1	0	**38**	5	**101**
7:30AM	44	6	0	0	**50**	0	0	8	5	0	**13**	0	2	1	12	0	**15**	0	11	22	0	0	**33**	1	**111**
7:45AM	41	8	0	0	**49**	1	0	8	5	0	**13**	2	0	4	12	0	**16**	1	3	26	1	0	**30**	1	**108**
Hourly Total	135	28	5	0	**168**	2	0	28	19	0	**47**	4	6	5	43	0	**54**	4	23	102	2	0	**127**	9	**396**
8:00AM	45	6	4	0	**55**	1	1	11	7	0	**19**	1	2	1	15	0	**18**	1	9	26	1	0	**36**	0	**128**
8:15AM	48	9	0	0	**57**	2	0	16	11	0	**27**	0	4	9	13	0	**26**	2	5	20	1	0	**26**	1	**136**
8:30AM	86	23	2	0	**111**	0	0	13	6	0	**19**	6	4	7	19	0	**30**	1	8	30	0	0	**38**	10	**198**
8:45AM	65	23	10	0	**98**	3	0	27	9	0	**36**	4	2	7	22	0	**31**	4	6	17	2	0	**25**	8	**190**
Hourly Total	244	61	16	0	**321**	6	1	67	33	0	**101**	11	12	24	69	0	**105**	8	28	93	4	0	**125**	19	**652**
4:00PM	18	8	10	0	**36**	0	1	16	3	0	**20**	5	7	17	60	0	**84**	2	9	10	1	0	**20**	6	**160**
4:15PM	13	8	9	0	**30**	1	1	10	1	0	**12**	1	4	22	52	0	**78**	2	2	10	0	0	**12**	1	**132**
4:30PM	21	6	7	0	**34**	3	1	18	4	0	**23**	6	2	23	48	0	**73**	2	8	5	0	0	**13**	9	**143**
4:45PM	17	6	10	0	**33**	5	1	11	2	0	**14**	4	4	33	56	0	**93**	6	6	12	0	0	**18**	6	**158**
Hourly Total	69	28	36	0	**133**	9	4	55	10	0	**69**	16	17	95	216	0	**328**	12	25	37	1	0	**63**	22	**593**
5:00PM	15	16	6	0	**37**	4	0	11	2	0	**13**	1	5	18	65	0	**88**	1	7	8	0	0	**15**	2	**153**
5:15PM	9	14	6	1	**30**	3	0	15	4	0	**19**	2	4	33	67	0	**104**	2	2	14	1	0	**17**	1	**170**
5:30PM	19	10	14	1	**44**	0	1	22	3	0	**26**	5	8	21	79	0	**108**	3	6	7	0	0	**13**	4	**191**
5:45PM	12	10	9	0	**31**	1	1	14	6	0	**21**	6	6	27	61	0	**94**	3	4	10	1	0	**15**	7	**161**
Hourly Total	55	50	35	2	**142**	8	2	62	15	0	**79**	14	23	99	272	0	**394**	9	19	39	2	0	**60**	14	**675**
6:00PM	19	10	8	0	**37**	2	1	13	3	0	**17**	1	6	32	49	0	**87**	2	7	9	0	0	**16**	4	**157**
6:15PM	15	11	10	0	**36**	1	0	17	3	0	**20**	4	2	16	40	0	**58**	3	3	9	0	0	**12**	3	**126**
6:30PM	9	5	12	1	**27**	4	0	9	6	0	**15**	5	8	18	40	0	**66**	1	6	7	0	0	**13**	0	**121**
6:45PM	10	9	10	0	**29**	3	0	9	3	0	**12**	2	3	19	32	0	**54**	1	5	12	0	0	**17**	5	**112**
Hourly Total	53	35	40	1	**129**	10	1	48	15	0	**64**	12	19	85	161	0	**265**	7	21	37	0	0	**58**	12	**516**
Total	604	254	136	3	**997**	36	8	284	99	0	**391**	65	82	312	777	0	**1171**	40	129	341	9	0	**479**	82	**3038**
% Approach	60.6%	25.5%	13.6%	0.3%	**-**	-	2.0%	72.6%	25.3%	0%	**-**	-	7.0%	26.6%	66.4%	0%	**-**	-	26.9%	71.2%	1.9%	0%	**-**	-	-
% Total	19.9%	8.4%	4.5%	0.1%	**32.8%**	-	0.3%	9.3%	3.3%	0%	**12.9%**	-	2.7%	10.3%	25.6%	0%	**38.5%**	-	4.2%	11.2%	0.3%	0%	**15.8%**	-	-
Motorcycles	0	2	0	0	**2**	-	0	1	0	0	**1**	-	0	1	0	0	**1**	-	1	0	0	0	**1**	-	5
% Motorcycles	0%	0.8%	0%	0%	**0.2%**	-	0%	0.4%	0%	0%	**0.3%**	-	0%	0.3%	0%	0%	**0.1%**	-	0.8%	0%	0%	0%	**0.2%**	-	0.2%
Lights	600	231	136	3	**970**	-	8	262	97	0	**367**	-	81	309	774	0	**1164**	-	126	341	7	0	**474**	-	2975
% Lights	99.3%	90.9%	100%	100%	**97.3%**	-	100%	92.3%	98.0%	0%	**93.9%**	-	98.8%	99.0%	99.6%	0%	**99.4%**	-	97.7%	100%	77.8%	0%	**99.0%**	-	97.9%
Single-Unit Trucks	2	1	0	0	**3**	-	0	3	1	0	**4**	-	1	2	2	0	**5**	-	0	0	2	0	**2**	-	14
% Single-Unit Trucks	0.3%	0.4%	0%	0%	**0.3%**	-	0%	1.1%	1.0%	0%	**1.0%**	-	1.2%	0.6%	0.3%	0%	**0.4%**	-	0%	0%	22.2%	0%	**0.4%**	-	0.5%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	1	12	0	0	**13**	-	0	11	0	0	**11**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	24
% Buses	0.2%	4.7%	0%	0%	**1.3%**	-	0%	3.9%	0%	0%	**2.8%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.8%
Bicycles on Road	1	8	0	0	**9**	-	0	7	1	0	**8**	-	0	0	1	0	**1**	-	2	0	0	0	**2**	-	20
% Bicycles on Road	0.2%	3.1%	0%	0%	**0.9%**	-	0%	2.5%	1.0%	0%	**2.0%**	-	0%	0%	0.1%	0%	**0.1%**	-	1.6%	0%	0%	0%	**0.4%**	-	0.7%
Pedestrians	-	-	-	-	-	36	-	-	-	-	-	65	-	-	-	-	-	39	-	-	-	-	-	82	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	97.5%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	2.5%	-	-	-	-	-	0%	-

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

North Gamma Ave and Albert St - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706448, Location: 49.281861, -122.994706

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



North Gamma Ave and Albert St - TMC
Tue Oct 8, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706448, Location: 49.281861, -122.994706

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

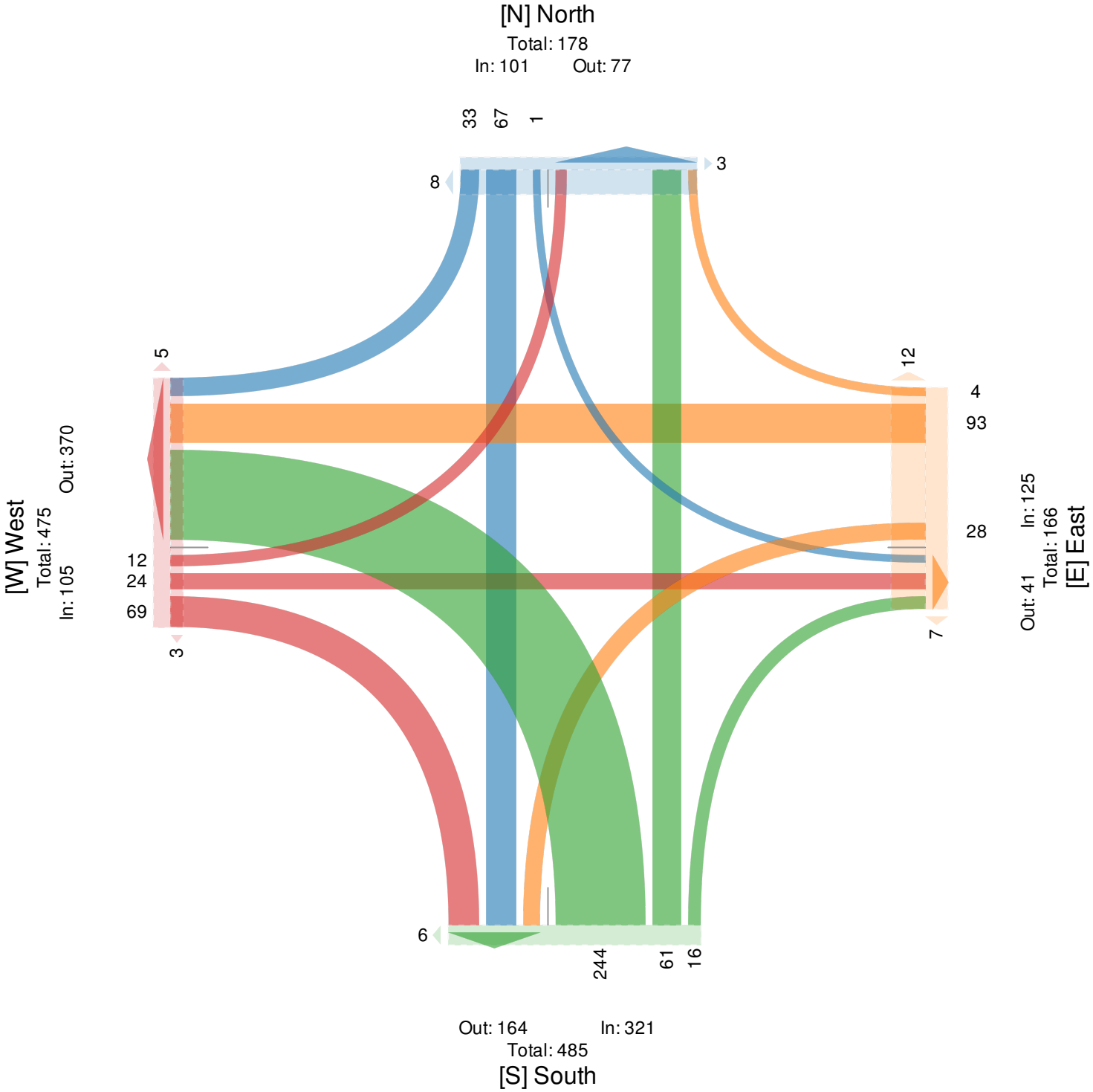
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 8:00AM	45	6	4	0	**55**	1	1	11	7	0	**19**	1	2	1	15	0	**18**	1	9	26	1	0	**36**	0	**128**
8:15AM	48	9	0	0	**57**	2	0	16	11	0	**27**	0	4	9	13	0	**26**	2	5	20	1	0	**26**	1	**136**
8:30AM	86	23	2	0	**111**	0	0	13	6	0	**19**	6	4	7	19	0	**30**	1	8	30	0	0	**38**	10	**198**
8:45AM	65	23	10	0	**98**	3	0	27	9	0	**36**	4	2	7	22	0	**31**	4	6	17	2	0	**25**	8	**190**
Total	244	61	16	0	**321**	6	1	67	33	0	**101**	11	12	24	69	0	**105**	8	28	93	4	0	**125**	19	**652**
% Approach	76.0%	19.0%	5.0%	0%	**-**	-	1.0%	66.3%	32.7%	0%	**-**	-	11.4%	22.9%	65.7%	0%	**-**	-	22.4%	74.4%	3.2%	0%	**-**	-	**-**
% Total	37.4%	9.4%	2.5%	0%	**49.2%**	-	0.2%	10.3%	5.1%	0%	**15.5%**	-	1.8%	3.7%	10.6%	0%	**16.1%**	-	4.3%	14.3%	0.6%	0%	**19.2%**	-	**-**
PHF	0.706	0.652	0.400	-	**0.725**	-	0.250	0.593	0.800	-	**0.674**	-	0.750	0.667	0.784	-	**0.847**	-	0.844	0.775	0.500	-	**0.816**	-	0.827
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Lights	241	57	16	0	**314**	-	1	62	32	0	**95**	-	12	23	69	0	**104**	-	27	93	4	0	**124**	-	637
% Lights	98.8%	93.4%	100%	0%	**97.8%**	-	100%	92.5%	97.0%	0%	**94.1%**	-	100%	95.8%	100%	0%	**99.0%**	-	96.4%	100%	100%	0%	**99.2%**	-	97.7%
Single-Unit Trucks	2	1	0	0	**3**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	4
% Single-Unit Trucks	0.8%	1.6%	0%	0%	**0.9%**	-	0%	0%	0%	0%	**0%**	-	0%	4.2%	0%	0%	**1.0%**	-	0%	0%	0%	0%	**0%**	-	0.6%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	2	0	0	**2**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	4
% Buses	0%	3.3%	0%	0%	**0.6%**	-	0%	3.0%	0%	0%	**2.0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.6%
Bicycles on Road	1	1	0	0	**2**	-	0	3	1	0	**4**	-	0	0	0	0	**0**	-	1	0	0	0	**1**	-	7
% Bicycles on Road	0.4%	1.6%	0%	0%	**0.6%**	-	0%	4.5%	3.0%	0%	**4.0%**	-	0%	0%	0%	0%	**0%**	-	3.6%	0%	0%	0%	**0.8%**	-	1.1%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	11	-	-	-	-	-	8	-	-	-	-	-	19	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

North Gamma Ave and Albert St - TMC
Tue Oct 8, 2019
AM Peak (8 AM - 9 AM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706448, Location: 49.281861, -122.994706

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



North Gamma Ave and Albert St - TMC
Tue Oct 8, 2019
PM Peak (5:15 PM - 6:15 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706448, Location: 49.281861, -122.994706

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

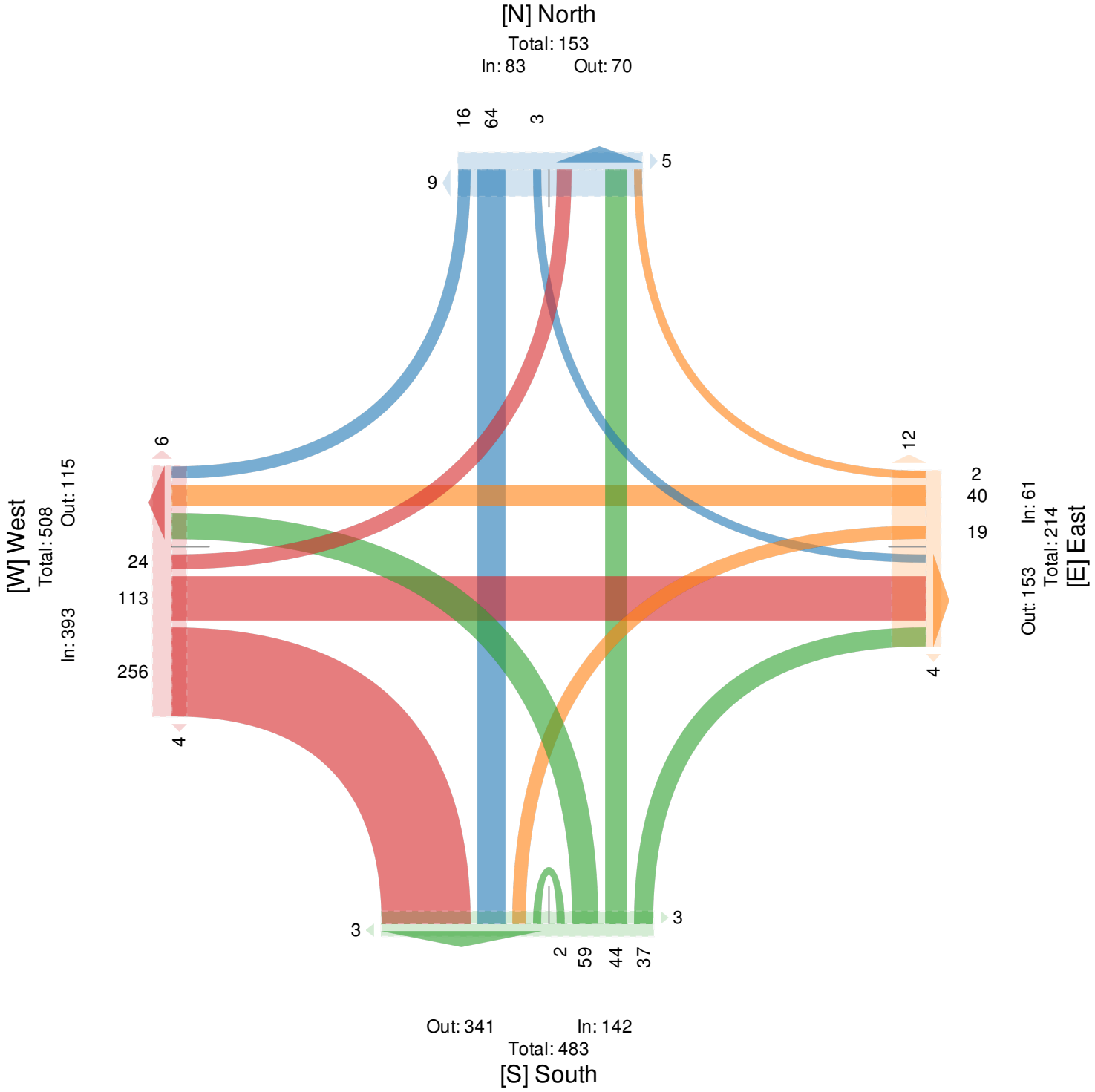
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 5:15PM	9	14	6	1	**30**	3	0	15	4	0	**19**	2	4	33	67	0	**104**	2	2	14	1	0	**17**	1	**170**
5:30PM	19	10	14	1	**44**	0	1	22	3	0	**26**	5	8	21	79	0	**108**	3	6	7	0	0	**13**	4	**191**
5:45PM	12	10	9	0	**31**	1	1	14	6	0	**21**	6	6	27	61	0	**94**	3	4	10	1	0	**15**	7	**161**
6:00PM	19	10	8	0	**37**	2	1	13	3	0	**17**	1	6	32	49	0	**87**	2	7	9	0	0	**16**	4	**157**
Total	59	44	37	2	**142**	6	3	64	16	0	**83**	14	24	113	256	0	**393**	10	19	40	2	0	**61**	16	**679**
% Approach	41.5%	31.0%	26.1%	1.4%	**-**	-	3.6%	77.1%	19.3%	0%	**-**	-	6.1%	28.8%	65.1%	0%	**-**	-	31.1%	65.6%	3.3%	0%	**-**	-	**-**
% Total	8.7%	6.5%	5.4%	0.3%	**20.9%**	-	0.4%	9.4%	2.4%	0%	**12.2%**	-	3.5%	16.6%	37.7%	0%	**57.9%**	-	2.8%	5.9%	0.3%	0%	**9.0%**	-	-
PHF	0.776	0.768	0.661	0.500	**0.801**	-	0.750	0.763	0.667	-	**0.833**	-	0.750	0.856	0.810	-	**0.910**	-	0.679	0.714	0.500	-	**0.897**	-	0.893
Motorcycles	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	1
% Motorcycles	0%	2.3%	0%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Lights	59	40	37	2	**138**	-	3	59	16	0	**78**	-	24	113	256	0	**393**	-	19	40	2	0	**61**	-	670
% Lights	100%	90.9%	100%	100%	**97.2%**	-	100%	92.2%	100%	0%	**94.0%**	-	100%	100%	100%	0%	**100%**	-	100%	100%	100%	0%	**100%**	-	98.7%
Single-Unit Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%
Buses	0	2	0	0	**2**	-	0	2	0	0	**2**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	4
% Buses	0%	4.5%	0%	0%	**1.4%**	-	0%	3.1%	0%	0%	**2.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.6%
Bicycles on Road	0	1	0	0	**1**	-	0	3	0	0	**3**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	4
% Bicycles on Road	0%	2.3%	0%	0%	**0.7%**	-	0%	4.7%	0%	0%	**3.6%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0.6%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	14	-	-	-	-	-	9	-	-	-	-	-	16	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	90.0%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	10.0%	-	-	-	-	-	0%	-

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

North Gamma Ave and Albert St - TMC
Tue Oct 8, 2019
PM Peak (5:15 PM - 6:15 PM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706448, Location: 49.281861, -122.994706

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings Ave and North Gamma Ave - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706446, Location: 49.280986, -122.994737

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 6:00AM	0	3	0	0	**3**	0	9	2	20	0	**31**	3	6	44	0	0	**50**	1	0	260	27	0	**287**	1	**371**
6:15AM	1	2	0	0	**3**	0	2	0	21	0	**23**	0	5	76	1	0	**82**	0	3	427	32	0	**462**	0	**570**
6:30AM	0	3	3	0	**6**	0	3	0	17	0	**20**	0	11	73	0	0	**84**	0	1	550	32	0	**583**	0	**693**
6:45AM	2	3	1	0	**6**	0	13	6	16	0	**35**	1	5	83	1	0	**89**	0	4	536	32	0	**572**	6	**702**
Hourly Total	3	11	4	0	**18**	0	27	8	74	0	**109**	4	27	276	2	0	**305**	1	8	1773	123	0	**1904**	7	**2336**
7:00AM	3	1	1	0	**5**	0	11	3	16	0	**30**	2	8	88	1	0	**97**	0	2	538	34	0	**574**	2	**706**
7:15AM	3	10	1	0	**14**	1	17	3	19	0	**39**	5	7	115	3	0	**125**	1	9	510	48	0	**567**	3	**745**
7:30AM	4	9	0	0	**13**	2	9	4	18	0	**31**	2	7	144	4	0	**155**	1	8	567	50	0	**625**	5	**824**
7:45AM	4	7	3	0	**14**	0	20	7	20	0	**47**	3	7	155	2	0	**164**	2	11	518	52	0	**581**	7	**806**
Hourly Total	14	27	5	0	**46**	3	57	17	73	0	**147**	12	29	502	10	0	**541**	4	30	2133	184	0	**2347**	17	**3081**
8:00AM	7	19	4	0	**30**	3	21	13	19	0	**53**	3	11	186	2	0	**199**	3	10	549	59	0	**618**	6	**900**
8:15AM	3	9	7	0	**19**	1	20	10	21	0	**51**	5	18	177	1	0	**196**	1	18	569	59	0	**646**	7	**912**
8:30AM	6	15	5	0	**26**	2	29	13	17	0	**59**	4	9	200	0	0	**209**	7	22	449	92	0	**563**	9	**857**
8:45AM	6	27	3	0	**36**	3	27	13	12	0	**52**	5	13	180	3	0	**196**	5	22	417	73	0	**512**	7	**796**
Hourly Total	22	70	19	0	**111**	9	97	49	69	0	**215**	17	51	743	6	0	**800**	16	72	1984	283	0	**2339**	29	**3465**
4:00PM	1	10	10	0	**21**	2	73	6	9	0	**88**	6	12	471	3	0	**486**	3	2	194	18	0	**214**	5	**809**
4:15PM	9	8	14	0	**31**	3	54	15	5	0	**74**	6	9	446	2	0	**457**	2	8	201	18	0	**227**	3	**789**
4:30PM	6	10	15	0	**31**	1	62	10	9	0	**81**	8	9	356	1	0	**366**	0	11	215	16	0	**242**	5	**720**
4:45PM	8	12	8	0	**28**	2	69	7	8	0	**84**	4	13	423	3	0	**439**	1	6	277	16	0	**299**	3	**850**
Hourly Total	24	40	47	0	**111**	8	258	38	31	0	**327**	24	43	1696	9	0	**1748**	6	27	887	68	0	**982**	16	**3168**
5:00PM	8	19	20	0	**47**	3	80	11	7	0	**98**	10	17	398	7	0	**422**	5	7	207	16	0	**230**	3	**797**
5:15PM	5	7	18	0	**30**	0	79	7	3	0	**89**	9	17	466	3	0	**486**	2	9	219	17	0	**245**	3	**850**
5:30PM	8	16	19	0	**43**	4	85	12	11	0	**108**	9	9	363	3	0	**375**	5	8	220	17	0	**245**	7	**771**
5:45PM	13	8	13	0	**34**	4	65	8	11	0	**84**	12	15	435	1	0	**451**	6	8	234	19	0	**261**	8	**830**
Hourly Total	34	50	70	0	**154**	11	309	38	32	0	**379**	40	58	1662	14	0	**1734**	18	32	880	69	0	**981**	21	**3248**
6:00PM	13	14	14	0	**41**	1	65	7	12	0	**84**	11	20	430	3	1	**454**	10	4	200	20	0	**224**	7	**803**
6:15PM	3	7	12	0	**22**	2	51	11	19	0	**81**	13	13	353	4	0	**370**	6	6	226	25	1	**258**	4	**731**
6:30PM	5	11	9	0	**25**	4	41	9	10	0	**60**	9	12	309	4	0	**325**	6	11	163	12	0	**186**	1	**596**
6:45PM	7	10	7	0	**24**	2	42	7	16	0	**65**	10	16	284	5	0	**305**	1	5	156	13	0	**174**	12	**568**
Hourly Total	28	42	42	0	**112**	9	199	34	57	0	**290**	43	61	1376	16	1	**1454**	23	26	745	70	1	**842**	24	**2698**
Total	125	240	187	0	**552**	40	947	184	336	0	**1467**	140	269	6255	57	1	**6582**	68	195	8402	797	1	**9395**	114	**17996**
% Approach	22.6%	43.5%	33.9%	0%	**-**	-	64.6%	12.5%	22.9%	0%	**-**	-	4.1%	95.0%	0.9%	0%	**-**	-	2.1%	89.4%	8.5%	0%	**-**	-	-
% Total	0.7%	1.3%	1.0%	0%	**3.1%**	-	5.3%	1.0%	1.9%	0%	**8.2%**	-	1.5%	34.8%	0.3%	0%	**36.6%**	-	1.1%	46.7%	4.4%	0%	**52.2%**	-	-
Motorcycles	0	0	0	0	**0**	-	0	1	1	0	**2**	-	0	18	0	0	**18**	-	0	27	1	0	**28**	-	48
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0.5%	0.3%	0%	**0.1%**	-	0%	0.3%	0%	0%	**0.3%**	-	0%	0.3%	0.1%	0%	**0.3%**	-	0.3%
Lights	124	237	186	0	**547**	-	943	178	322	0	**1443**	-	257	6031	55	1	**6344**	-	193	8142	789	1	**9125**	-	17459
% Lights	99.2%	98.8%	99.5%	0%	**99.1%**	-	99.6%	96.7%	95.8%	0%	**98.4%**	-	95.5%	96.4%	96.5%	100%	**96.4%**	-	99.0%	96.9%	99.0%	100%	**97.1%**	-	97.0%
Single-Unit Trucks	1	0	1	0	**2**	-	4	1	1	0	**6**	-	0	62	1	0	**63**	-	2	89	4	0	**95**	-	166
% Single-Unit Trucks	0.8%	0%	0.5%	0%	**0.4%**	-	0.4%	0.5%	0.3%	0%	**0.4%**	-	0%	1.0%	1.8%	0%	**1.0%**	-	1.0%	1.1%	0.5%	0%	**1.0%**	-	0.9%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	4	1	0	**5**	-	0	8	0	0	**8**	-	13
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	1.8%	0%	**0.1%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.1%
Buses	0	0	0	0	**0**	-	0	0	11	0	**11**	-	12	135	0	0	**147**	-	0	131	1	0	**132**	-	290
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	3.3%	0%	**0.7%**	-	4.5%	2.2%	0%	0%	**2.2%**	-	0%	1.6%	0.1%	0%	**1.4%**	-	1.6%
Bicycles on Road	0	3	0	0	**3**	-	0	4	1	0	**5**	-	0	5	0	0	**5**	-	0	5	2	0	**7**	-	20
% Bicycles on Road	0%	1.3%	0%	0%	**0.5%**	-	0%	2.2%	0.3%	0%	**0.3%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0.1%	0.3%	0%	**0.1%**	-	0.1%
Pedestrians	-	-	-	-	-	40	-	-	-	-	-	134	-	-	-	-	-	64	-	-	-	-	-	108	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	95.7%	-	-	-	-	-	94.1%	-	-	-	-	-	94.7%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	4	-	-	-	-	-	6	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	4.3%	-	-	-	-	-	5.9%	-	-	-	-	-	5.3%	-

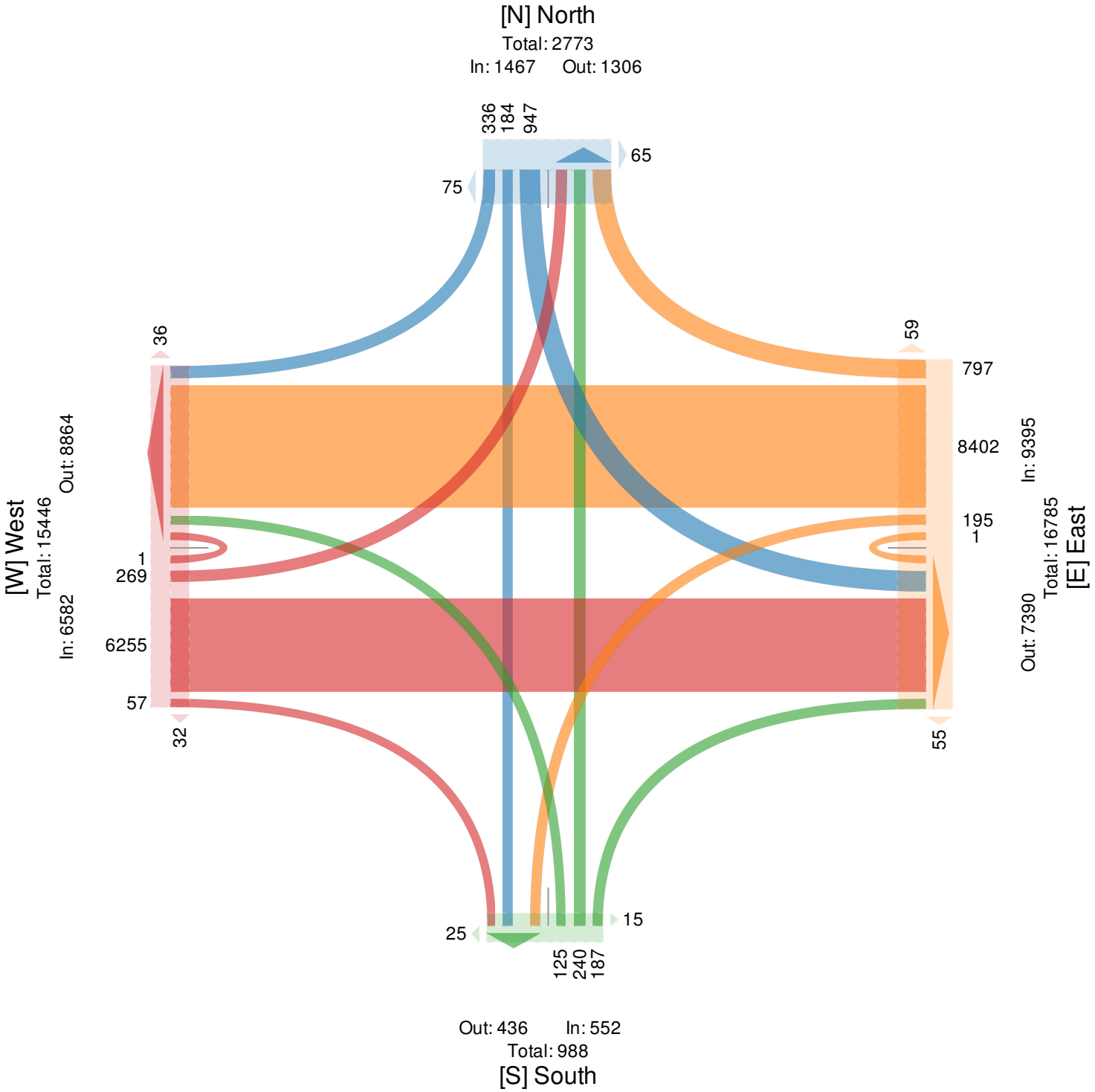
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hastings Ave and North Gamma Ave - TMC

Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706446, Location: 49.280986, -122.994737

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings Ave and North Gamma Ave - TMC
Tue Oct 8, 2019
AM Peak (7:45 AM - 8:45 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706446, Location: 49.280986, -122.994737

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 7:45AM	4	7	3	0	**14**	0	20	7	20	0	**47**	3	7	155	2	0	**164**	2	11	518	52	0	**581**	7	**806**
8:00AM	7	19	4	0	**30**	3	21	13	19	0	**53**	3	11	186	2	0	**199**	3	10	549	59	0	**618**	6	**900**
8:15AM	3	9	7	0	**19**	1	20	10	21	0	**51**	5	18	177	1	0	**196**	1	18	569	59	0	**646**	7	**912**
8:30AM	6	15	5	0	**26**	2	29	13	17	0	**59**	4	9	200	0	0	**209**	7	22	449	92	0	**563**	9	**857**
Total	20	50	19	0	**89**	6	90	43	77	0	**210**	15	45	718	5	0	**768**	13	61	2085	262	0	**2408**	29	**3475**
% Approach	22.5%	56.2%	21.3%	0%	**-**	-	42.9%	20.5%	36.7%	0%	**-**	-	5.9%	93.5%	0.7%	0%	**-**	-	2.5%	86.6%	10.9%	0%	**-**	-	-
% Total	0.6%	1.4%	0.5%	0%	**2.6%**	-	2.6%	1.2%	2.2%	0%	**6.0%**	-	1.3%	20.7%	0.1%	0%	**22.1%**	-	1.8%	60.0%	7.5%	0%	**69.3%**	-	-
PHF	0.714	0.658	0.679		**-0.742**	-	0.776	0.886	0.917		**-0.904**	-	0.625	0.896	0.625		**-0.917**	-	0.693	0.916	0.712		**-0.932**	-	0.952
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	3	0	0	**3**	-	0	3	0	0	**3**	-	6
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.4%	0%	0%	**0.4%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.2%
Lights	20	50	19	0	**89**	-	89	39	75	0	**203**	-	43	682	4	0	**729**	-	61	2030	258	0	**2349**	-	3370
% Lights	100%	100%	100%	0%	**100%**	-	98.9%	90.7%	97.4%	0%	**96.7%**	-	95.6%	95.0%	80.0%	0%	**94.9%**	-	100%	97.4%	98.5%	0%	**97.5%**	-	97.0%
Single-Unit Trucks	0	0	0	0	**0**	-	1	0	0	0	**1**	-	0	10	0	0	**10**	-	0	28	3	0	**31**	-	42
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	1.1%	0%	0%	0%	**0.5%**	-	0%	1.4%	0%	0%	**1.3%**	-	0%	1.3%	1.1%	0%	**1.3%**	-	1.2%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	1	0	**1**	-	0	3	0	0	**3**	-	4
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	20.0%	0%	**0.1%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.1%
Buses	0	0	0	0	**0**	-	0	0	2	0	**2**	-	2	22	0	0	**24**	-	0	21	1	0	**22**	-	48
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	2.6%	0%	**1.0%**	-	4.4%	3.1%	0%	0%	**3.1%**	-	0%	1.0%	0.4%	0%	**0.9%**	-	1.4%
Bicycles on Road	0	0	0	0	**0**	-	0	4	0	0	**4**	-	0	1	0	0	**1**	-	0	0	0	0	**0**	-	5
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	9.3%	0%	0%	**1.9%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Pedestrians	-	-	-	-	-	6	-	-	-	-	-	15	-	-	-	-	-	13	-	-	-	-	-	29	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Hastings Ave and North Gamma Ave - TMC

Tue Oct 8, 2019

AM Peak (7:45 AM - 8:45 AM) - Overall Peak Hour

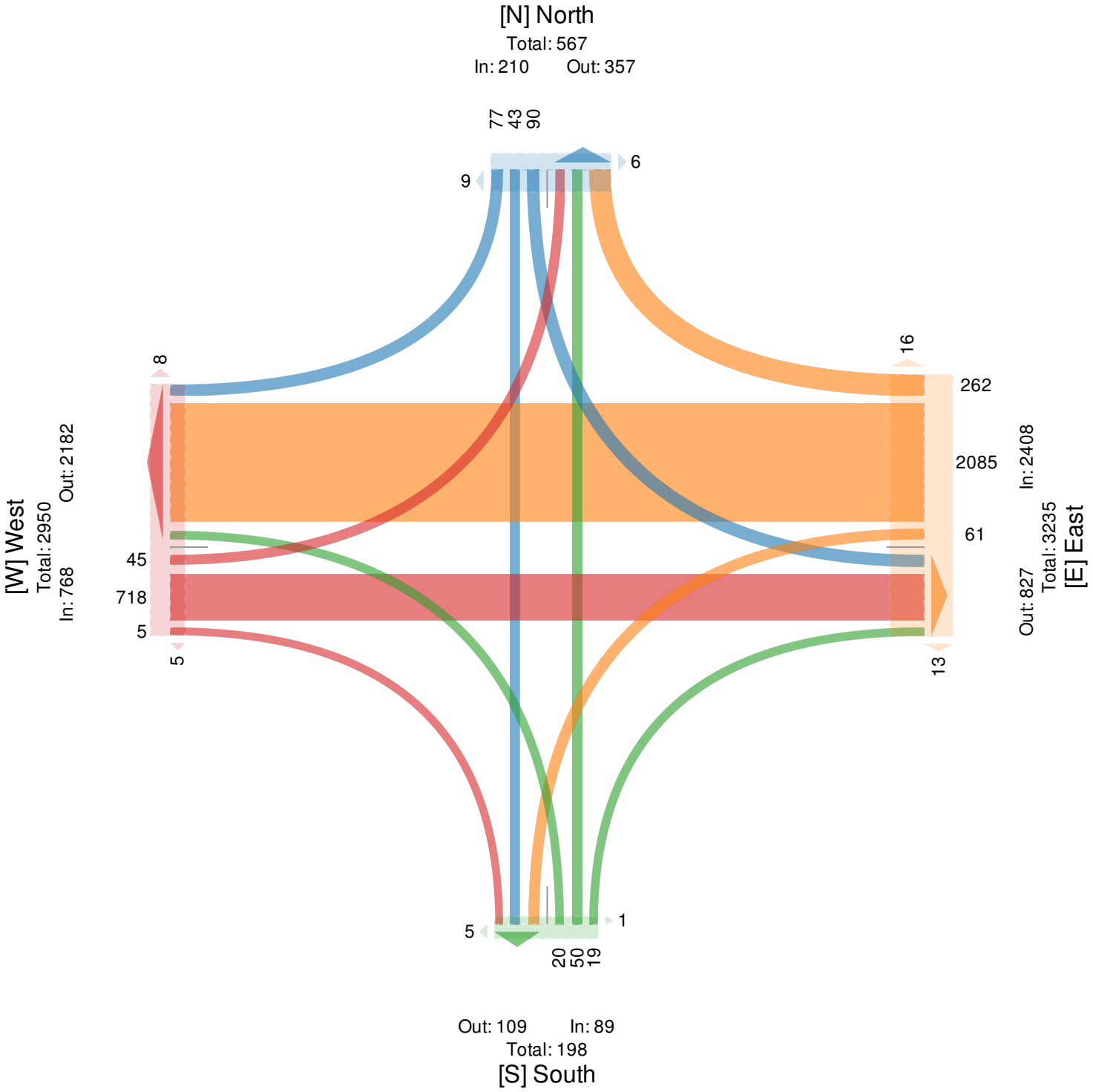
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 706446, Location: 49.280986, -122.994737

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings Ave and North Gamma Ave - TMC
Tue Oct 8, 2019
PM Peak (4:45 PM - 5:45 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706446, Location: 49.280986, -122.994737

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 4:45PM	8	12	8	0	**28**	2	69	7	8	0	**84**	4	13	423	3	0	**439**	1	6	277	16	0	**299**	3	**850**
5:00PM	8	19	20	0	**47**	3	80	11	7	0	**98**	10	17	398	7	0	**422**	5	7	207	16	0	**230**	3	**797**
5:15PM	5	7	18	0	**30**	0	79	7	3	0	**89**	9	17	466	3	0	**486**	2	9	219	17	0	**245**	3	**850**
5:30PM	8	16	19	0	**43**	4	85	12	11	0	**108**	9	9	363	3	0	**375**	5	8	220	17	0	**245**	7	**771**
Total	29	54	65	0	**148**	9	313	37	29	0	**379**	32	56	1650	16	0	**1722**	13	30	923	66	0	**1019**	16	**3268**
% Approach	19.6%	36.5%	43.9%	0%	-	-	82.6%	9.8%	7.7%	0%	-	-	3.3%	95.8%	0.9%	0%	-	-	2.9%	90.6%	6.5%	0%	-	-	-
% Total	0.9%	1.7%	2.0%	0%	**4.5%**	-	9.6%	1.1%	0.9%	0%	**11.6%**	-	1.7%	50.5%	0.5%	0%	**52.7%**	-	0.9%	28.2%	2.0%	0%	**31.2%**	-	-
PHF	0.906	0.736	0.813	-	**0.799**	-	0.921	0.771	0.659	-	**0.877**	-	0.824	0.885	0.571	-	**0.886**	-	0.833	0.835	0.971	-	**0.854**	-	0.961
Motorcycles	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	10	0	0	**10**	-	0	2	1	0	**3**	-	13
% Motorcycles	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.6%	0%	0%	**0.6%**	-	0%	0.2%	1.5%	0%	**0.3%**	-	0.4%
Lights	29	53	65	0	**147**	-	311	37	27	0	**375**	-	54	1605	16	0	**1675**	-	29	893	65	0	**987**	-	3184
% Lights	100%	98.1%	100%	0%	**99.3%**	-	99.4%	100%	93.1%	0%	**98.9%**	-	96.4%	97.3%	100%	0%	**97.3%**	-	96.7%	96.7%	98.5%	0%	**96.9%**	-	97.4%
Single-Unit Trucks	0	0	0	0	**0**	-	2	0	0	0	**2**	-	0	13	0	0	**13**	-	1	4	0	0	**5**	-	20
% Single-Unit Trucks	0%	0%	0%	0%	**0%**	-	0.6%	0%	0%	0%	**0.5%**	-	0%	0.8%	0%	0%	**0.8%**	-	3.3%	0.4%	0%	0%	**0.5%**	-	0.6%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	1
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%
Buses	0	0	0	0	**0**	-	0	0	2	0	**2**	-	2	22	0	0	**24**	-	0	22	0	0	**22**	-	48
% Buses	0%	0%	0%	0%	**0%**	-	0%	0%	6.9%	0%	**0.5%**	-	3.6%	1.3%	0%	0%	**1.4%**	-	0%	2.4%	0%	0%	**2.2%**	-	1.5%
Bicycles on Road	0	1	0	0	**1**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	0	0	**1**	-	2
% Bicycles on Road	0%	1.9%	0%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0.1%
Pedestrians	-	-	-	-	-	9	-	-	-	-	-	30	-	-	-	-	-	10	-	-	-	-	-	14	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	93.8%	-	-	-	-	-	76.9%	-	-	-	-	-	87.5%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	2	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	6.3%	-	-	-	-	-	23.1%	-	-	-	-	-	12.5%	-

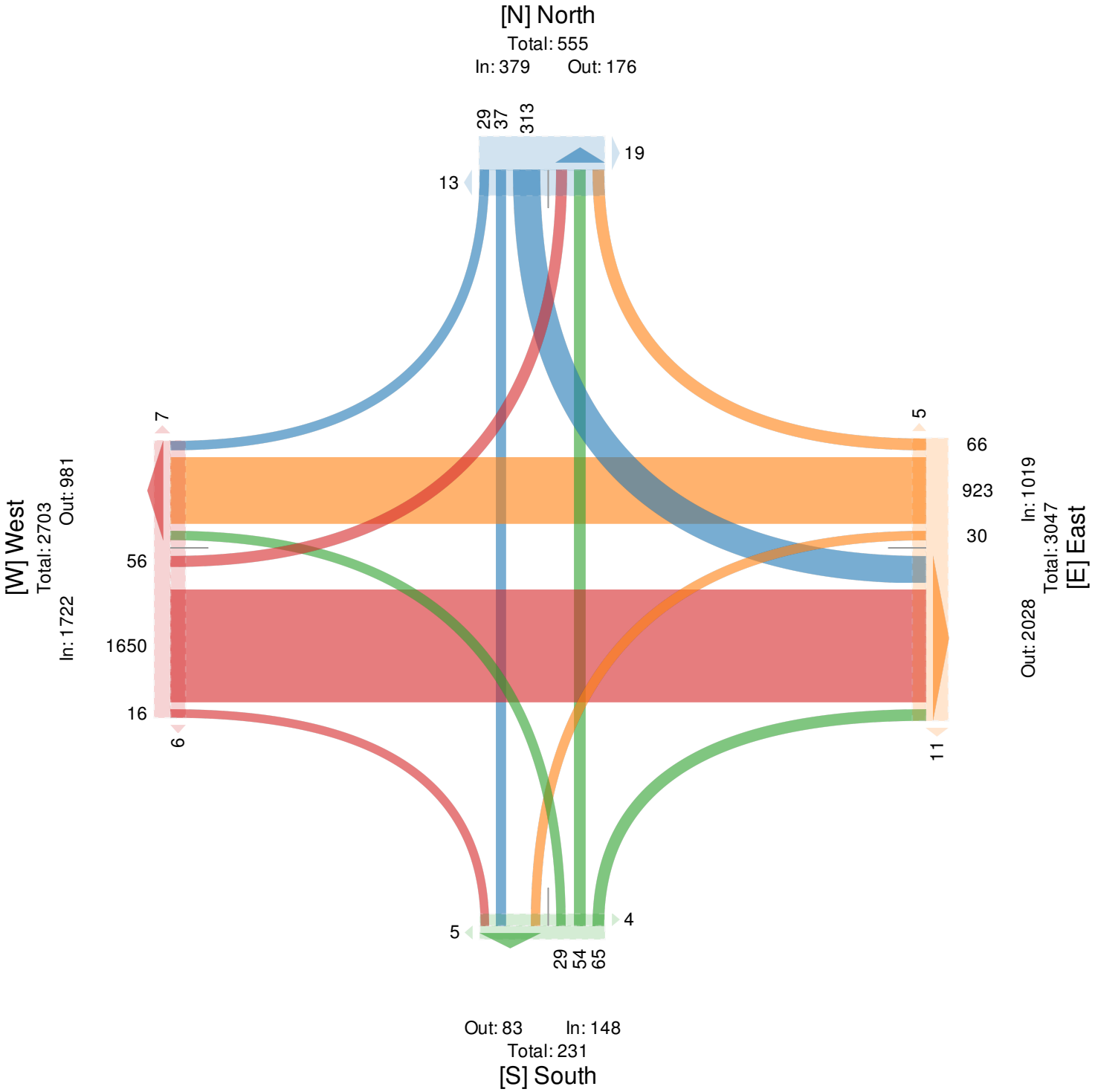
*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Hastings Ave and North Gamma Ave - TMC

Tue Oct 8, 2019
PM Peak (4:45 PM - 5:45 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706446, Location: 49.280986, -122.994737

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings St and Holdom Ave - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706445, Location: 49.280351, -122.980923

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

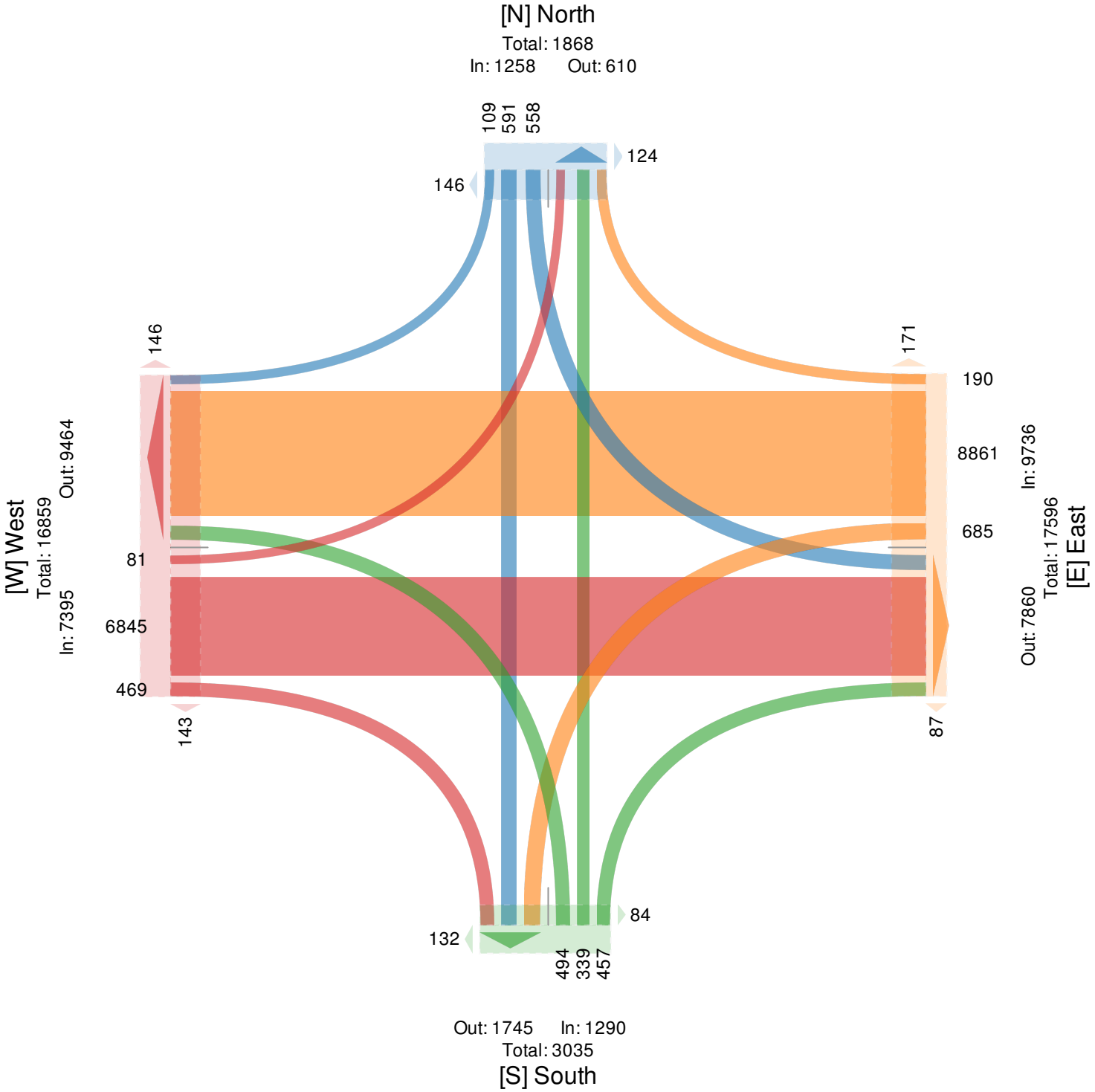
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 6:00AM	10	1	3	0	**14**	0	4	3	1	0	**8**	6	0	45	10	0	**55**	0	20	269	1	0	**290**	3	**367**
6:15AM	14	1	3	0	**18**	3	0	18	5	0	**23**	1	0	74	5	0	**79**	6	29	496	4	0	**529**	4	**649**
6:30AM	24	1	4	0	**29**	5	11	17	6	0	**34**	1	0	78	9	0	**87**	5	37	524	5	0	**566**	2	**716**
6:45AM	13	3	11	0	**27**	4	10	13	4	0	**27**	3	0	83	4	0	**87**	7	50	576	4	0	**630**	1	**771**
Hourly Total	61	6	21	0	**88**	12	25	51	16	0	**92**	11	0	280	28	0	**308**	18	136	1865	14	0	**2015**	10	**2503**
7:00AM	22	7	3	0	**32**	4	5	16	4	0	**25**	9	0	96	12	0	**108**	6	34	566	3	0	**603**	1	**768**
7:15AM	13	5	10	0	**28**	4	12	28	1	0	**41**	15	2	122	8	0	**132**	7	37	560	4	0	**601**	7	**802**
7:30AM	24	7	7	0	**38**	7	15	27	3	0	**45**	8	1	120	10	0	**131**	16	42	610	4	0	**656**	4	**870**
7:45AM	28	7	13	0	**48**	7	14	37	5	0	**56**	11	1	185	15	0	**201**	7	52	544	8	0	**604**	7	**909**
Hourly Total	87	26	33	0	**146**	22	46	108	13	0	**167**	43	4	523	45	0	**572**	36	165	2280	19	0	**2464**	19	**3349**
8:00AM	22	11	15	0	**48**	6	17	31	3	0	**51**	22	3	182	14	0	**199**	13	39	651	3	0	**693**	16	**991**
8:15AM	26	13	17	0	**56**	13	21	32	7	0	**60**	17	3	205	10	0	**218**	16	53	556	9	0	**618**	20	**952**
8:30AM	23	29	22	0	**74**	15	30	29	6	0	**65**	25	6	224	15	0	**245**	11	49	535	17	0	**601**	21	**985**
8:45AM	36	26	13	0	**75**	14	22	47	17	0	**86**	35	8	182	24	0	**214**	21	56	502	27	0	**585**	52	**960**
Hourly Total	107	79	67	0	**253**	48	90	139	33	0	**262**	99	20	793	63	0	**876**	61	197	2244	56	0	**2497**	109	**3888**
4:00PM	17	14	29	0	**60**	6	32	23	4	0	**59**	10	4	503	28	0	**535**	8	14	176	11	0	**201**	10	**855**
4:15PM	24	20	24	0	**68**	10	39	25	3	0	**67**	5	7	500	34	0	**541**	7	14	188	7	0	**209**	8	**885**
4:30PM	20	13	30	0	**63**	7	42	27	5	0	**74**	18	1	424	26	0	**451**	25	18	251	10	0	**279**	14	**867**
4:45PM	20	23	24	0	**67**	12	43	27	3	0	**73**	9	1	419	28	0	**448**	18	8	251	5	0	**264**	5	**852**
Hourly Total	81	70	107	0	**258**	35	156	102	15	0	**273**	42	13	1846	116	0	**1975**	58	54	866	33	0	**953**	37	**3459**
5:00PM	22	17	38	0	**77**	20	38	27	3	0	**68**	15	4	483	28	0	**515**	22	20	204	12	0	**236**	12	**896**
5:15PM	22	29	22	0	**73**	4	29	33	3	0	**65**	10	7	439	26	0	**472**	13	15	225	11	0	**251**	6	**861**
5:30PM	21	19	34	0	**74**	11	47	27	5	0	**79**	10	4	517	29	0	**550**	8	15	212	6	0	**233**	13	**936**
5:45PM	19	22	31	0	**72**	12	34	27	4	0	**65**	6	6	463	38	0	**507**	14	25	227	9	0	**261**	7	**905**
Hourly Total	84	87	125	0	**296**	47	148	114	15	0	**277**	41	21	1902	121	0	**2044**	57	75	868	38	0	**981**	38	**3598**
6:00PM	20	22	25	0	**67**	18	30	26	0	0	**56**	8	2	482	31	0	**515**	19	9	188	6	0	**203**	15	**841**
6:15PM	23	16	27	0	**66**	20	23	14	9	0	**46**	11	6	400	22	0	**428**	22	18	227	7	0	**252**	16	**792**
6:30PM	17	14	25	0	**56**	8	21	15	1	0	**37**	4	6	295	23	0	**324**	8	15	176	5	0	**196**	3	**613**
6:45PM	14	19	27	0	**60**	6	19	22	7	0	**48**	11	9	324	20	0	**353**	10	16	147	12	0	**175**	11	**636**
Hourly Total	74	71	104	0	**249**	52	93	77	17	0	**187**	34	23	1501	96	0	**1620**	59	58	738	30	0	**826**	45	**2882**
Total	494	339	457	0	**1290**	216	558	591	109	0	**1258**	270	81	6845	469	0	**7395**	289	685	8861	190	0	**9736**	258	**19679**
% Approach	38.3%	26.3%	35.4%	0%	**-**	-	44.4%	47.0%	8.7%	0%	**-**	-	1.1%	92.6%	6.3%	0%	**-**	-	7.0%	91.0%	2.0%	0%	**-**	-	-
% Total	2.5%	1.7%	2.3%	0%	**6.6%**	-	2.8%	3.0%	0.6%	0%	**6.4%**	-	0.4%	34.8%	2.4%	0%	**37.6%**	-	3.5%	45.0%	1.0%	0%	**49.5%**	-	-
Motorcycles	1	1	1	0	**3**	-	2	2	0	0	**4**	-	0	12	1	0	**13**	-	5	28	1	0	**34**	-	54
% Motorcycles	0.2%	0.3%	0.2%	0%	**0.2%**	-	0.4%	0.3%	0%	0%	**0.3%**	-	0%	0.2%	0.2%	0%	**0.2%**	-	0.7%	0.3%	0.5%	0%	**0.3%**	-	0.3%
Lights	461	332	442	0	**1235**	-	554	584	108	0	**1246**	-	78	6655	438	0	**7171**	-	673	8632	184	0	**9489**	-	19141
% Lights	93.3%	97.9%	96.7%	0%	**95.7%**	-	99.3%	98.8%	99.1%	0%	**99.0%**	-	96.3%	97.2%	93.4%	0%	**97.0%**	-	98.2%	97.4%	96.8%	0%	**97.5%**	-	97.3%
Single-Unit Trucks	7	4	13	0	**24**	-	1	4	0	0	**5**	-	2	58	10	0	**70**	-	7	77	2	0	**86**	-	185
% Single-Unit Trucks	1.4%	1.2%	2.8%	0%	**1.9%**	-	0.2%	0.7%	0%	0%	**0.4%**	-	2.5%	0.8%	2.1%	0%	**0.9%**	-	1.0%	0.9%	1.1%	0%	**0.9%**	-	0.9%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	5	0	0	**5**	-	0	10	1	0	**11**	-	16
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0.1%	0.5%	0%	**0.1%**	-	0.1%
Buses	25	2	1	0	**28**	-	1	0	0	0	**1**	-	1	111	20	0	**132**	-	0	107	1	0	**108**	-	269
% Buses	5.1%	0.6%	0.2%	0%	**2.2%**	-	0.2%	0%	0%	0%	**0.1%**	-	1.2%	1.6%	4.3%	0%	**1.8%**	-	0%	1.2%	0.5%	0%	**1.1%**	-	1.4%
Bicycles on Road	0	0	0	0	**0**	-	0	1	1	0	**2**	-	0	4	0	0	**4**	-	0	7	1	0	**8**	-	14
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0.2%	0.9%	0%	**0.2%**	-	0%	0.1%	0%	0%	**0.1%**	-	0%	0.1%	0.5%	0%	**0.1%**	-	0.1%
Pedestrians	-	-	-	-	-	214	-	-	-	-	-	267	-	-	-	-	-	288	-	-	-	-	-	258	
% Pedestrians	-	-	-	-	-	99.1%	-	-	-	-	-	98.9%	-	-	-	-	-	99.7%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	2	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0.9%	-	-	-	-	-	1.1%	-	-	-	-	-	0.3%	-	-	-	-	-	0%	-

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

Hastings St and Holdom Ave - TMC
Tue Oct 8, 2019
Full Length (6 AM-9 AM, 4 PM-7 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706445, Location: 49.280351, -122.980923

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings St and Holdom Ave - TMC
Tue Oct 8, 2019
AM Peak (8 AM - 9 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706445, Location: 49.280351, -122.980923

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

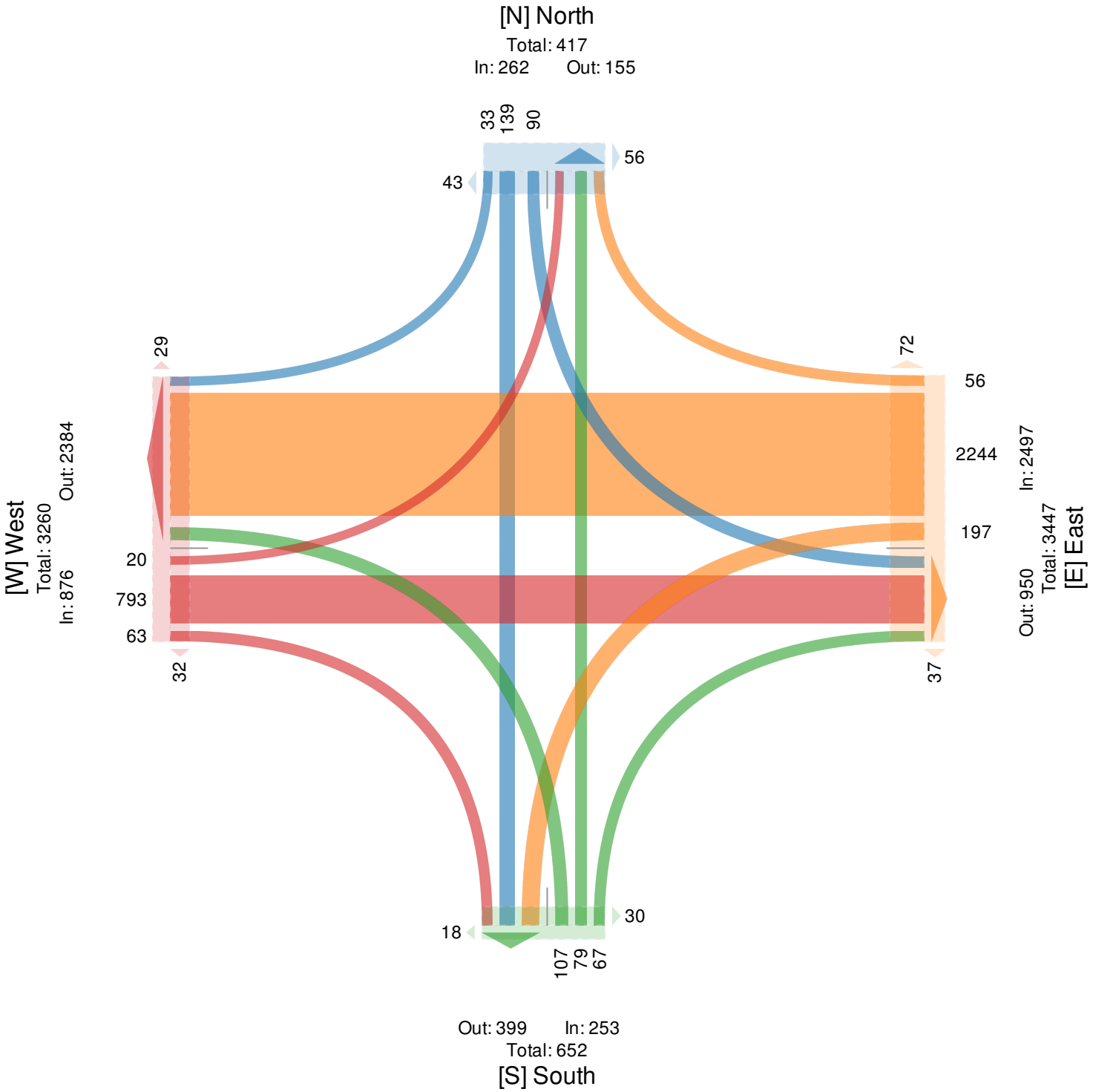
Leg / Direction	South Northbound						North Southbound						West Eastbound						East Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 8:00AM	22	11	15	0	**48**	6	17	31	3	0	**51**	22	3	182	14	0	**199**	13	39	651	3	0	**693**	16	**991**
8:15AM	26	13	17	0	**56**	13	21	32	7	0	**60**	17	3	205	10	0	**218**	16	53	556	9	0	**618**	20	**952**
8:30AM	23	29	22	0	**74**	15	30	29	6	0	**65**	25	6	224	15	0	**245**	11	49	535	17	0	**601**	21	**985**
8:45AM	36	26	13	0	**75**	14	22	47	17	0	**86**	35	8	182	24	0	**214**	21	56	502	27	0	**585**	52	**960**
Total	107	79	67	0	**253**	48	90	139	33	0	**262**	99	20	793	63	0	**876**	61	197	2244	56	0	**2497**	109	**3888**
% Approach	42.3%	31.2%	26.5%	0%	-	-	34.4%	53.1%	12.6%	0%	-	-	2.3%	90.5%	7.2%	0%	-	-	7.9%	89.9%	2.2%	0%	-	-	-
% Total	2.8%	2.0%	1.7%	0%	**6.5%**	-	2.3%	3.6%	0.8%	0%	**6.7%**	-	0.5%	20.4%	1.6%	0%	**22.5%**	-	5.1%	57.7%	1.4%	0%	**64.2%**	-	-
PHF	0.743	0.681	0.761	-	**0.843**	-	0.750	0.739	0.485	-	**0.762**	-	0.625	0.883	0.656	-	**0.892**	-	0.879	0.861	0.519	-	**0.900**	-	0.980
Motorcycles	0	0	1	0	**1**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	1	7	0	0	**8**	-	11
% Motorcycles	0%	0%	1.5%	0%	**0.4%**	-	0%	0%	0%	0%	**0%**	-	0%	0.3%	0%	0%	**0.2%**	-	0.5%	0.3%	0%	0%	**0.3%**	-	0.3%
Lights	101	76	58	0	**235**	-	89	138	33	0	**260**	-	19	756	59	0	**834**	-	195	2182	55	0	**2432**	-	3761
% Lights	94.4%	96.2%	86.6%	0%	**92.9%**	-	98.9%	99.3%	100%	0%	**99.2%**	-	95.0%	95.3%	93.7%	0%	**95.2%**	-	99.0%	97.2%	98.2%	0%	**97.4%**	-	96.7%
Single-Unit Trucks	1	2	8	0	**11**	-	0	1	0	0	**1**	-	0	13	0	0	**13**	-	1	31	0	0	**32**	-	57
% Single-Unit Trucks	0.9%	2.5%	11.9%	0%	**4.3%**	-	0%	0.7%	0%	0%	**0.4%**	-	0%	1.6%	0%	0%	**1.5%**	-	0.5%	1.4%	0%	0%	**1.3%**	-	1.5%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	4	1	0	**5**	-	7
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.3%	0%	0%	**0.2%**	-	0%	0.2%	1.8%	0%	**0.2%**	-	0.2%
Buses	5	1	0	0	**6**	-	1	0	0	0	**1**	-	1	18	4	0	**23**	-	0	19	0	0	**19**	-	49
% Buses	4.7%	1.3%	0%	0%	**2.4%**	-	1.1%	0%	0%	0%	**0.4%**	-	5.0%	2.3%	6.3%	0%	**2.6%**	-	0%	0.8%	0%	0%	**0.8%**	-	1.3%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	0	1	0	0	**1**	-	3
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.3%	0%	0%	**0.2%**	-	0%	0%	0%	0%	**0%**	-	0.1%
Pedestrians	-	-	-	-	-	48	-	-	-	-	-	99	-	-	-	-	-	60	-	-	-	-	-	109	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	98.4%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	1.6%	-	-	-	-	-	0%	-

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

Hastings St and Holdom Ave - TMC
Tue Oct 8, 2019
AM Peak (8 AM - 9 AM) - Overall Peak Hour
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706445, Location: 49.280351, -122.980923

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



Hastings St and Holdom Ave - TMC
Tue Oct 8, 2019
PM Peak (5 PM - 6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706445, Location: 49.280351, -122.980923

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA

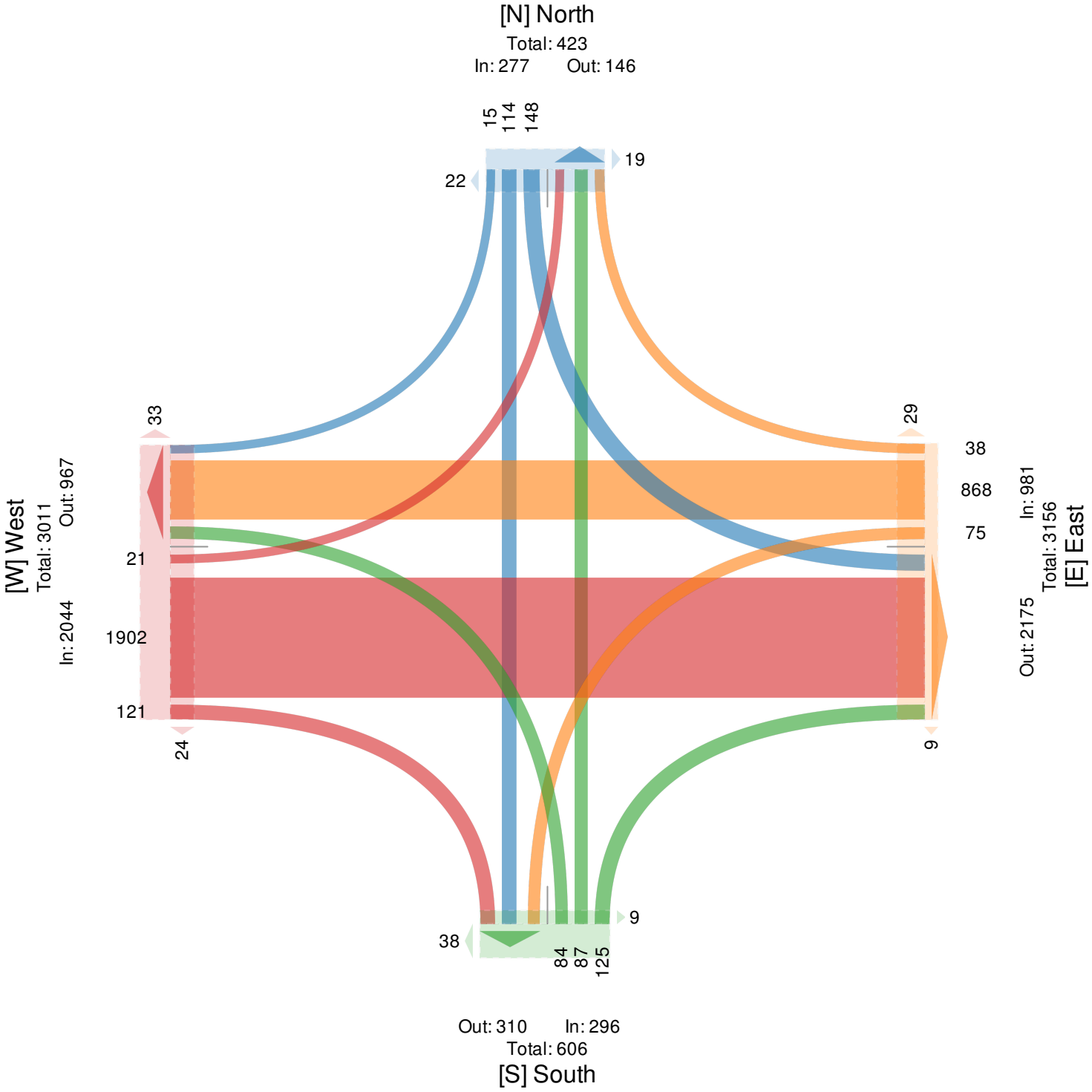
Leg	South						North						West						East						
Direction	Northbound						Southbound						Eastbound						Westbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2019-10-08 5:00PM	22	17	38	0	**77**	20	38	27	3	0	**68**	15	4	483	28	0	**515**	22	20	204	12	0	**236**	12	**896**
5:15PM	22	29	22	0	**73**	4	29	33	3	0	**65**	10	7	439	26	0	**472**	13	15	225	11	0	**251**	6	**861**
5:30PM	21	19	34	0	**74**	11	47	27	5	0	**79**	10	4	517	29	0	**550**	8	15	212	6	0	**233**	13	**936**
5:45PM	19	22	31	0	**72**	12	34	27	4	0	**65**	6	6	463	38	0	**507**	14	25	227	9	0	**261**	7	**905**
Total	84	87	125	0	**296**	47	148	114	15	0	**277**	41	21	1902	121	0	**2044**	57	75	868	38	0	**981**	38	**3598**
% Approach	28.4%	29.4%	42.2%	0%	**-**	-	53.4%	41.2%	5.4%	0%	**-**	-	1.0%	93.1%	5.9%	0%	**-**	-	7.6%	88.5%	3.9%	0%	**-**	-	-
% Total	2.3%	2.4%	3.5%	0%	**8.2%**	-	4.1%	3.2%	0.4%	0%	**7.7%**	-	0.6%	52.9%	3.4%	0%	**56.8%**	-	2.1%	24.1%	1.1%	0%	**27.3%**	-	-
PHF	0.955	0.750	0.822	-	**0.961**	-	0.787	0.864	0.750	-	**0.877**	-	0.750	0.920	0.796	-	**0.929**	-	0.750	0.959	0.771	-	**0.941**	-	0.960
Motorcycles	0	1	0	0	**1**	-	2	0	0	0	**2**	-	0	4	0	0	**4**	-	1	4	0	0	**5**	-	12
% Motorcycles	0%	1.1%	0%	0%	**0.3%**	-	1.4%	0%	0%	0%	**0.7%**	-	0%	0.2%	0%	0%	**0.2%**	-	1.3%	0.5%	0%	0%	**0.5%**	-	0.3%
Lights	78	86	124	0	**288**	-	146	114	15	0	**275**	-	21	1865	116	0	**2002**	-	72	837	37	0	**946**	-	3511
% Lights	92.9%	98.9%	99.2%	0%	**97.3%**	-	98.6%	100%	100%	0%	**99.3%**	-	100%	98.1%	95.9%	0%	**97.9%**	-	96.0%	96.4%	97.4%	0%	**96.4%**	-	97.6%
Single-Unit Trucks	1	0	1	0	**2**	-	0	0	0	0	**0**	-	0	15	2	0	**17**	-	2	6	0	0	**8**	-	27
% Single-Unit Trucks	1.2%	0%	0.8%	0%	**0.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0.8%	1.7%	0%	**0.8%**	-	2.7%	0.7%	0%	0%	**0.8%**	-	0.8%
Articulated Trucks	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	2	0	0	**2**	-	2
% Articulated Trucks	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.2%	0%	0%	**0.2%**	-	0.1%
Buses	5	0	0	0	**5**	-	0	0	0	0	**0**	-	0	18	3	0	**21**	-	0	18	0	0	**18**	-	44
% Buses	6.0%	0%	0%	0%	**1.7%**	-	0%	0%	0%	0%	**0%**	-	0%	0.9%	2.5%	0%	**1.0%**	-	0%	2.1%	0%	0%	**1.8%**	-	1.2%
Bicycles on Road	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	0	0	0	**0**	-	0	1	1	0	**2**	-	2
% Bicycles on Road	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0%	0%	0%	**0%**	-	0%	0.1%	2.6%	0%	**0.2%**	-	0.1%
Pedestrians	-	-	-	-	-	47	-	-	-	-	-	41	-	-	-	-	-	57	-	-	-	-	-	38	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
Bicycles on Crosswalk	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
% Bicycles on Crosswalk	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

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

Hastings St and Holdom Ave - TMC
Tue Oct 8, 2019
PM Peak (5 PM - 6 PM)
All Classes (Motorcycles, Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)
All Movements
ID: 706445, Location: 49.280351, -122.980923

McElhanney

Provided by: McElhanney Kamloops
710 Laval Crescent, Kamloops, BC, V2C5P3, CA



APPENDIX B – SYNCHRO RESULTS

Intersection	
Int Delay, s/veh	2.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	45	10	0
Future Vol, veh/h	0	0	0	45	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	25	75	75	50	50
Heavy Vehicles, %	0	0	7	7	0	0
Mvmt Flow	0	0	0	60	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	60	0	-	0	30	30
Stage 1	-	-	-	-	30	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1556	-	-	-	989	1050
Stage 1	-	-	-	-	998	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1556	-	-	-	989	1050
Mov Cap-2 Maneuver	-	-	-	-	989	-
Stage 1	-	-	-	-	998	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1556	-	-	-	989
HCM Lane V/C Ratio	-	-	-	-	0.02
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	8.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	9	18	27	118	58	47	49	20	29	47	1
Future Vol, veh/h	2	9	18	27	118	58	47	49	20	29	47	1
Conflicting Peds, #/hr	5	0	0	0	0	5	13	0	1	1	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	88	88	88	81	81	81	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	9	9	9	4	4	4
Mvmt Flow	3	14	27	31	134	66	58	60	25	33	53	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	427	335	67	330	323	79	67	0	0	86	0	0
Stage 1	133	133	-	190	190	-	-	-	-	-	-	-
Stage 2	294	202	-	140	133	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.19	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.281	-	-	2.236	-	-
Pot Cap-1 Maneuver	541	589	1002	627	598	987	1491	-	-	1498	-	-
Stage 1	875	790	-	816	747	-	-	-	-	-	-	-
Stage 2	719	738	-	868	790	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	386	545	991	569	554	982	1475	-	-	1497	-	-
Mov Cap-2 Maneuver	386	545	-	569	554	-	-	-	-	-	-	-
Stage 1	830	763	-	782	716	-	-	-	-	-	-	-
Stage 2	521	707	-	810	763	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	13.9	3.1	2.8
HCM LOS	B	B		

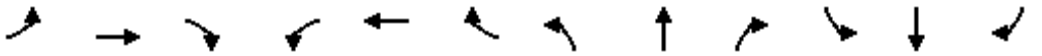
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1475	-	-	728	635	1497	-	-
HCM Lane V/C Ratio	0.039	-	-	0.06	0.363	0.022	-	-
HCM Control Delay (s)	7.5	0	-	10.3	13.9	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.7	0.1	-	-

Intersection	
Intersection Delay, s/veh	23.3
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	20	83	135	85	277	38	76	136	62	20	142	14
Future Vol, veh/h	20	83	135	85	277	38	76	136	62	20	142	14
Peak Hour Factor	0.75	0.75	0.75	0.90	0.90	0.90	0.85	0.85	0.85	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	27	111	180	94	308	42	89	160	73	22	153	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	18.3	32	20.9	15.3
HCM LOS	C	D	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	8%	21%	11%
Vol Thru, %	50%	35%	69%	81%
Vol Right, %	23%	57%	10%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	274	238	400	176
LT Vol	76	20	85	20
Through Vol	136	83	277	142
RT Vol	62	135	38	14
Lane Flow Rate	322	317	444	189
Geometry Grp	1	1	1	1
Degree of Util (X)	0.623	0.578	0.812	0.392
Departure Headway (Hd)	6.963	6.552	6.579	7.461
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	516	549	556	481
Service Time	5.028	4.614	4.579	5.539
HCM Lane V/C Ratio	0.624	0.577	0.799	0.393
HCM Control Delay	20.9	18.3	32	15.3
HCM Lane LOS	C	C	D	C
HCM 95th-tile Q	4.2	3.6	8	1.8



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	44	512	79	473	1550	69	126	150	112	97	228	26
Future Volume (veh/h)	44	512	79	473	1550	69	126	150	112	97	228	26
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.95	0.91		0.83	0.92		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1807	1807	1807	1821	1821	1821
Adj Flow Rate, veh/h	50	582	90	503	1649	73	170	203	151	103	243	28
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.74	0.74	0.74	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	207	2027	607	585	2569	114	279	373	264	245	632	71
Arrive On Green	0.04	0.40	0.40	0.16	0.52	0.52	0.05	0.21	0.21	0.05	0.21	0.21
Sat Flow, veh/h	1762	5051	1513	1762	4947	219	1721	1807	1277	1734	3063	345
Grp Volume(v), veh/h	50	582	90	503	1122	600	170	203	151	103	135	136
Grp Sat Flow(s),veh/h/ln	1762	1684	1513	1762	1684	1798	1721	1807	1277	1734	1730	1678
Q Serve(g_s), s	2.3	10.9	5.3	22.5	33.6	33.7	7.5	14.1	14.9	6.5	9.4	9.8
Cycle Q Clear(g_c), s	2.3	10.9	5.3	22.5	33.6	33.7	7.5	14.1	14.9	6.5	9.4	9.8
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	207	2027	607	585	1748	934	279	373	264	245	357	346
V/C Ratio(X)	0.24	0.29	0.15	0.86	0.64	0.64	0.61	0.54	0.57	0.42	0.38	0.39
Avail Cap(c_a), veh/h	226	2027	607	585	1748	934	279	386	273	245	369	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.5	28.3	26.7	20.1	24.3	24.3	46.3	49.7	50.0	41.5	47.8	48.0
Incr Delay (d2), s/veh	0.6	0.4	0.5	12.4	1.8	3.4	3.8	1.5	2.7	1.1	0.7	0.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	8.6	4.0	18.6	21.6	23.4	4.7	11.3	9.1	5.6	7.8	7.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.1	28.7	27.2	32.5	26.1	27.7	50.1	51.1	52.7	42.7	48.5	48.7
LnGrp LOS	C	C	C	C	C	C	D	D	D	D	D	D
Approach Vol, veh/h		722			2225			524			374	
Approach Delay, s/veh		28.2			28.0			51.3			47.0	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	29.0	62.0	14.0	35.0	12.5	78.5	14.0	35.0
Change Period (Y+Rc), s	6.5	5.8	6.5	* 6.1	6.5	5.8	6.5	* 6.1
Max Green Setting (Gmax), s	22.5	55.2	7.5	* 30	7.5	70.2	7.5	* 30
Max Q Clear Time (g_c+I1), s	24.5	12.9	9.5	11.8	4.3	35.7	8.5	16.9
Green Ext Time (p_c), s	0.0	13.5	0.0	3.6	0.0	31.0	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	33.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	181	4	1	33	57	60
Future Vol, veh/h	181	4	1	33	57	60
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	71	71	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	248	5	1	46	83	87

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	253	0	299	251
Stage 1	-	-	-	-	251	-
Stage 2	-	-	-	-	48	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1324	-	697	793
Stage 1	-	-	-	-	795	-
Stage 2	-	-	-	-	980	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1324	-	696	793
Mov Cap-2 Maneuver	-	-	-	-	696	-
Stage 1	-	-	-	-	794	-
Stage 2	-	-	-	-	980	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	743	-	-	1324	-
HCM Lane V/C Ratio	0.228	-	-	0.001	-
HCM Control Delay (s)	11.3	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	170	83	0	7	44	1	6	1	51	7	0	0
Future Vol, veh/h	170	83	0	7	44	1	6	1	51	7	0	0
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	87	87	87	68	68	68	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	266	130	0	8	51	1	9	1	75	16	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	54	0	0	130	0	0	730	732	131	734	732	54
Stage 1	-	-	-	-	-	-	662	662	-	70	70	-
Stage 2	-	-	-	-	-	-	68	70	-	664	662	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1564	-	-	1468	-	-	340	351	924	338	351	1019
Stage 1	-	-	-	-	-	-	454	462	-	945	841	-
Stage 2	-	-	-	-	-	-	947	841	-	453	462	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1561	-	-	1468	-	-	291	284	923	264	284	1017
Mov Cap-2 Maneuver	-	-	-	-	-	-	291	284	-	264	284	-
Stage 1	-	-	-	-	-	-	370	377	-	770	834	-
Stage 2	-	-	-	-	-	-	941	834	-	338	377	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.2	1	10.3	19.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	290	923	1561	-	-	1468	-	-	264
HCM Lane V/C Ratio	0.035	0.081	0.17	-	-	0.005	-	-	0.06
HCM Control Delay (s)	17.9	9.2	7.8	0	-	7.5	0	-	19.5
HCM Lane LOS	C	A	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.3	0.6	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	7.9
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	3	6	5	40	0	109	28	1	1	38	2
Future Vol, veh/h	1	3	6	5	40	0	109	28	1	1	38	2
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.89	0.89	0.89	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	5	10	7	53	0	122	31	1	1	41	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.7	8.2	7.4
HCM LOS	A	A	A	A

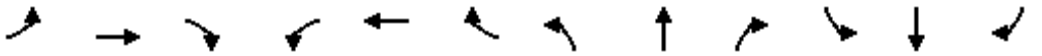
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	79%	10%	11%	2%
Vol Thru, %	20%	30%	89%	93%
Vol Right, %	1%	60%	0%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	138	10	45	41
LT Vol	109	1	5	1
Through Vol	28	3	40	38
RT Vol	1	6	0	2
Lane Flow Rate	155	16	60	44
Geometry Grp	1	1	1	1
Degree of Util (X)	0.182	0.018	0.073	0.051
Departure Headway (Hd)	4.218	4.076	4.389	4.125
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	844	883	821	855
Service Time	2.276	2.077	2.39	2.212
HCM Lane V/C Ratio	0.184	0.018	0.073	0.051
HCM Control Delay	8.2	7.2	7.7	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.1	0.2	0.2

Intersection	
Intersection Delay, s/veh	12.9
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	24	69	28	93	4	244	61	16	1	67	33
Future Vol, veh/h	12	24	69	28	93	4	244	61	16	1	67	33
Peak Hour Factor	0.85	0.85	0.85	0.82	0.82	0.82	0.73	0.73	0.73	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	28	81	34	113	5	334	84	22	1	100	49
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.6	10.5	15.8	9.6
HCM LOS	A	B	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	11%	22%	1%
Vol Thru, %	19%	23%	74%	66%
Vol Right, %	5%	66%	3%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	321	105	125	101
LT Vol	244	12	28	1
Through Vol	61	24	93	67
RT Vol	16	69	4	33
Lane Flow Rate	440	124	152	151
Geometry Grp	1	1	1	1
Degree of Util (X)	0.617	0.183	0.24	0.214
Departure Headway (Hd)	5.049	5.331	5.661	5.116
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	721	671	633	701
Service Time	3.049	3.377	3.706	3.156
HCM Lane V/C Ratio	0.61	0.185	0.24	0.215
HCM Control Delay	15.8	9.6	10.5	9.6
HCM Lane LOS	C	A	B	A
HCM 95th-tile Q	4.3	0.7	0.9	0.8



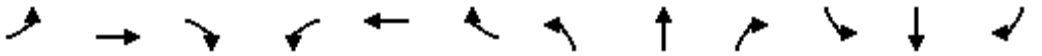
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	718	5	61	2085	262	20	50	19	90	43	77
Future Volume (veh/h)	45	718	5	61	2085	262	20	50	19	90	43	77
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	49	780	5	66	2242	282	27	68	26	100	48	86
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.74	0.74	0.74	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	161	3728	24	495	2897	356	82	194	67	151	68	106
Arrive On Green	0.04	0.72	0.72	0.64	0.64	0.64	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1762	5177	33	697	4549	559	255	978	337	575	341	533
Grp Volume(v), veh/h	49	507	278	66	1645	879	121	0	0	234	0	0
Grp Sat Flow(s),veh/h/ln	1762	1684	1844	697	1684	1742	1570	0	0	1449	0	0
Q Serve(g_s), s	1.2	7.0	7.0	5.3	48.6	51.8	0.0	0.0	0.0	13.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	7.0	7.0	5.3	48.6	51.8	8.6	0.0	0.0	21.6	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.32	0.22		0.21	0.43		0.37
Lane Grp Cap(c), veh/h	161	2424	1327	495	2144	1109	343	0	0	325	0	0
V/C Ratio(X)	0.30	0.21	0.21	0.13	0.77	0.79	0.35	0.00	0.00	0.72	0.00	0.00
Avail Cap(c_a), veh/h	191	2424	1327	495	2144	1109	563	0	0	524	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	23.3	6.5	6.5	10.2	18.1	18.6	48.3	0.0	0.0	53.6	0.0	0.0
Incr Delay (d2), s/veh	1.1	0.2	0.4	0.6	2.7	5.8	0.6	0.0	0.0	3.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	5.4	6.0	1.8	29.3	32.9	7.1	0.0	0.0	13.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	6.7	6.8	10.8	20.8	24.5	48.9	0.0	0.0	56.6	0.0	0.0
LnGrp LOS	C	A	A	B	C	C	D	A	A	E	A	A
Approach Vol, veh/h		834			2590			121			234	
Approach Delay, s/veh		7.8			21.8			48.9			56.6	
Approach LOS		A			C			D			E	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		106.3		33.7	11.7	94.6		33.7				
Change Period (Y+Rc), s		5.5		5.9	* 5.7	5.5		5.9				
Max Green Setting (Gmax), s		81.5		47.1	* 8.3	67.5		47.1				
Max Q Clear Time (g_c+I1), s		9.0		23.6	3.2	53.8		10.6				
Green Ext Time (p_c), s		21.0		3.8	0.1	13.7		2.0				

Intersection Summary		
HCM 6th Ctrl Delay	21.7	
HCM 6th LOS	C	

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	20	793	63	197	2244	56	107	79	67	90	139	33
Future Volume (veh/h)	20	793	63	197	2244	56	107	79	67	90	139	33
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.99		0.92	1.00		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	22	891	71	219	2493	62	127	94	80	118	183	43
Peak Hour Factor	0.89	0.89	0.89	0.90	0.90	0.90	0.84	0.84	0.84	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	82	2921	232	362	3119	77	164	111	86	156	214	48
Arrive On Green	0.62	0.62	0.62	0.62	0.62	0.62	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	126	4735	376	588	5057	125	436	381	296	415	733	164
Grp Volume(v), veh/h	22	632	330	219	1654	901	301	0	0	344	0	0
Grp Sat Flow(s),veh/h/ln	126	1684	1744	588	1684	1815	1112	0	0	1311	0	0
Q Serve(g_s), s	22.5	12.4	12.5	39.2	51.8	52.9	2.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	75.4	12.4	12.5	51.7	51.8	52.9	37.8	0.0	0.0	35.8	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.07	0.42		0.27	0.34		0.12
Lane Grp Cap(c), veh/h	82	2077	1076	362	2077	1119	362	0	0	418	0	0
V/C Ratio(X)	0.27	0.30	0.31	0.61	0.80	0.81	0.83	0.00	0.00	0.82	0.00	0.00
Avail Cap(c_a), veh/h	82	2077	1076	362	2077	1119	382	0	0	440	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	49.1	12.7	12.7	24.9	20.2	20.4	48.2	0.0	0.0	47.3	0.0	0.0
Incr Delay (d2), s/veh	8.0	0.4	0.7	7.3	3.3	6.2	13.9	0.0	0.0	11.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	9.3	9.8	11.0	31.2	35.0	18.2	0.0	0.0	19.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.1	13.0	13.4	32.2	23.5	26.6	62.1	0.0	0.0	58.8	0.0	0.0
LnGrp LOS	E	B	B	C	C	C	E	A	A	E	A	A
Approach Vol, veh/h		984			2774			301			344	
Approach Delay, s/veh		14.1			25.2			62.1			58.8	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	92.1	47.9	92.1	47.9
Change Period (Y+Rc), s	5.7	* 7	5.7	* 7
Max Green Setting (Gmax), s	84.3	* 43	84.3	* 43
Max Q Clear Time (g_c+I1), s	77.4	37.8	54.9	39.8
Green Ext Time (p_c), s	5.7	2.0	29.2	1.1

Intersection Summary	
HCM 6th Ctrl Delay	27.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	101	37	11	20	29
Future Vol, veh/h	25	101	37	11	20	29
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	71	71	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	30	122	52	15	24	35

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	145	62	0	0	69	0
Stage 1	62	-	-	-	-	-
Stage 2	83	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	852	1009	-	-	1545	-
Stage 1	966	-	-	-	-	-
Stage 2	945	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	837	1007	-	-	1542	-
Mov Cap-2 Maneuver	837	-	-	-	-	-
Stage 1	949	-	-	-	-	-
Stage 2	945	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.4	0	3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	968	1542	-
HCM Lane V/C Ratio	-	-	0.157	0.016	-
HCM Control Delay (s)	-	-	9.4	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	1	6	42	0
Future Vol, veh/h	0	0	1	6	42	0
Conflicting Peds, #/hr	1	0	0	1	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	25	44	44	41	41
Heavy Vehicles, %	0	0	25	25	0	0
Mvmt Flow	0	0	2	14	102	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	11	13
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1613	-	-	-	1014	1073
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1028	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1612	-	-	-	1012	1069
Mov Cap-2 Maneuver	-	-	-	-	1012	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1027	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	1012
HCM Lane V/C Ratio	-	-	-	-	0.101
HCM Control Delay (s)	0	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	84.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	82	38	182	42	35	29	45	37	56	103	5
Future Vol, veh/h	1	82	38	182	42	35	29	45	37	56	103	5
Conflicting Peds, #/hr	8	0	0	0	0	8	15	0	4	4	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	50	50	50	78	78	78	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	2	2	2
Mvmt Flow	1	106	49	364	84	70	37	58	47	63	116	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	501	443	134	483	423	94	137	0	0	109	0	0
Stage 1	260	260	-	160	160	-	-	-	-	-	-	-
Stage 2	241	183	-	323	263	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	484	512	920	497	526	968	1429	-	-	1481	-	-
Stage 1	749	697	-	847	769	-	-	-	-	-	-	-
Stage 2	767	752	-	693	694	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	360	467	908	365	480	958	1411	-	-	1476	-	-
Mov Cap-2 Maneuver	360	467	-	365	480	-	-	-	-	-	-	-
Stage 1	719	657	-	821	745	-	-	-	-	-	-	-
Stage 2	609	729	-	524	654	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.2	157.7	2	2.6
HCM LOS	B	F		

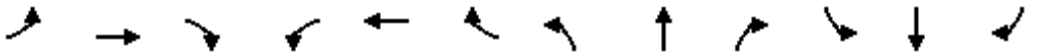
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1411	-	-	549	416	1476	-	-
HCM Lane V/C Ratio	0.026	-	-	0.286	1.245	0.043	-	-
HCM Control Delay (s)	7.6	0	-	14.2	157.7	7.5	0	-
HCM Lane LOS	A	A	-	B	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	21.7	0.1	-	-

Intersection	
Intersection Delay, s/veh	45.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	30	270	139	48	87	19	50	162	93	63	325	14
Future Vol, veh/h	30	270	139	48	87	19	50	162	93	63	325	14
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.97	0.97	0.97	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	34	303	156	55	100	22	52	167	96	67	346	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	65.1	17.8	26.2	48.6
HCM LOS	F	C	D	E

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	7%	31%	16%
Vol Thru, %	53%	62%	56%	81%
Vol Right, %	30%	32%	12%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	305	439	154	402
LT Vol	50	30	48	63
Through Vol	162	270	87	325
RT Vol	93	139	19	14
Lane Flow Rate	314	493	177	428
Geometry Grp	1	1	1	1
Degree of Util (X)	0.682	0.99	0.421	0.902
Departure Headway (Hd)	7.811	7.225	8.568	7.597
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	462	503	418	475
Service Time	5.889	5.287	6.659	5.666
HCM Lane V/C Ratio	0.68	0.98	0.423	0.901
HCM Control Delay	26.2	65.1	17.8	48.6
HCM Lane LOS	D	F	C	E
HCM 95th-tile Q	5	13.2	2	10.1



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	1243	84	185	747	54	149	209	261	174	275	27
Future Volume (veh/h)	64	1243	84	185	747	54	149	209	261	174	275	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	1.00		0.87	0.91		0.81	0.94		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1836	1836	1836	1836	1836	1836
Adj Flow Rate, veh/h	75	1462	99	203	821	59	186	261	326	196	309	30
Peak Hour Factor	0.85	0.85	0.85	0.91	0.91	0.91	0.80	0.80	0.80	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	377	2347	668	268	2347	167	290	418	289	223	670	64
Arrive On Green	0.05	0.46	0.46	0.08	0.49	0.49	0.07	0.23	0.23	0.05	0.21	0.21
Sat Flow, veh/h	1762	5051	1438	1762	4757	339	1748	1836	1267	1748	3139	299
Grp Volume(v), veh/h	75	1462	99	203	579	301	186	261	326	196	169	170
Grp Sat Flow(s),veh/h/ln	1762	1684	1438	1762	1684	1729	1748	1836	1267	1748	1744	1694
Q Serve(g_s), s	3.0	30.5	5.5	8.4	14.7	14.9	9.5	17.9	31.9	7.5	11.8	12.3
Cycle Q Clear(g_c), s	3.0	30.5	5.5	8.4	14.7	14.9	9.5	17.9	31.9	7.5	11.8	12.3
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	377	2347	668	268	1661	853	290	418	289	223	372	362
V/C Ratio(X)	0.20	0.62	0.15	0.76	0.35	0.35	0.64	0.62	1.13	0.88	0.45	0.47
Avail Cap(c_a), veh/h	413	2347	668	304	1661	853	290	418	289	223	372	362
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.9	28.2	21.5	24.8	21.7	21.7	43.6	48.7	54.0	51.1	47.9	48.1
Incr Delay (d2), s/veh	0.3	1.3	0.5	9.2	0.6	1.1	4.7	2.9	92.5	30.1	0.9	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.6	19.8	3.9	8.0	10.8	11.4	4.0	14.1	26.9	9.5	9.5	9.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.2	29.5	22.0	34.0	22.3	22.9	48.3	51.5	146.5	81.3	48.8	49.1
LnGrp LOS	B	C	C	C	C	C	D	D	F	F	D	D
Approach Vol, veh/h		1636			1083			773			535	
Approach Delay, s/veh		28.5			24.6			90.8			60.8	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.2	70.8	16.0	36.0	13.1	74.9	14.0	38.0
Change Period (Y+Rc), s	6.5	5.8	6.5	* 6.1	6.5	5.8	6.5	* 6.1
Max Green Setting (Gmax), s	13.5	62.2	9.5	* 28	9.5	66.2	7.5	* 32
Max Q Clear Time (g_c+I1), s	10.4	32.5	11.5	14.3	5.0	16.9	9.5	33.9
Green Ext Time (p_c), s	0.3	25.4	0.0	3.9	0.1	21.8	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	47	132	11	295	15	2
Future Vol, veh/h	47	132	11	295	15	2
Conflicting Peds, #/hr	0	5	5	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	48	48	71	71
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	63	176	23	615	21	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	244	0	818	157
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	662	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1334	-	348	894
Stage 1	-	-	-	-	877	-
Stage 2	-	-	-	-	517	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1328	-	337	889
Mov Cap-2 Maneuver	-	-	-	-	337	-
Stage 1	-	-	-	-	851	-
Stage 2	-	-	-	-	516	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	364	-	-	1328	-
HCM Lane V/C Ratio	0.066	-	-	0.017	-
HCM Control Delay (s)	15.6	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	9.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	1	53	26	6	135	7	3	1	9	2	9	158
Future Vol, veh/h	1	53	26	6	135	7	3	1	9	2	9	158
Conflicting Peds, #/hr	21	0	0	0	0	21	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	60	60	60	54	54	54	37	37	37
Heavy Vehicles, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	64	31	10	225	12	6	2	17	5	24	427

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	258	0	0	95	0	0	559	360	87	362	369	252
Stage 1	-	-	-	-	-	-	82	82	-	272	272	-
Stage 2	-	-	-	-	-	-	477	278	-	90	97	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1284	-	-	1512	-	-	443	570	977	598	563	792
Stage 1	-	-	-	-	-	-	931	831	-	738	688	-
Stage 2	-	-	-	-	-	-	573	684	-	922	819	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1261	-	-	1512	-	-	192	555	971	569	548	778
Mov Cap-2 Maneuver	-	-	-	-	-	-	192	555	-	569	548	-
Stage 1	-	-	-	-	-	-	930	830	-	724	670	-
Stage 2	-	-	-	-	-	-	247	666	-	898	818	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	12.6	16.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	230	971	1261	-	-	1512	-	-	758
HCM Lane V/C Ratio	0.032	0.017	0.001	-	-	0.007	-	-	0.603
HCM Control Delay (s)	21.2	8.8	7.9	0	-	7.4	0	-	16.7
HCM Lane LOS	C	A	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0	-	-	4.1

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	11	149	7	5	4	14	17	7	5	49	1
Future Vol, veh/h	0	11	149	7	5	4	14	17	7	5	49	1
Peak Hour Factor	0.78	0.78	0.78	0.67	0.67	0.67	0.86	0.86	0.86	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	14	191	10	7	6	16	20	8	7	68	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.4	7.6	7.9
HCM LOS	A	A	A	A

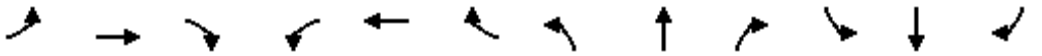
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	0%	44%	9%
Vol Thru, %	45%	7%	31%	89%
Vol Right, %	18%	93%	25%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	160	16	55
LT Vol	14	0	7	5
Through Vol	17	11	5	49
RT Vol	7	149	4	1
Lane Flow Rate	44	205	24	76
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.203	0.028	0.092
Departure Headway (Hd)	4.321	3.567	4.206	4.339
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	819	991	837	818
Service Time	2.398	1.646	2.301	2.406
HCM Lane V/C Ratio	0.054	0.207	0.029	0.093
HCM Control Delay	7.6	7.6	7.4	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.8	0.1	0.3

Intersection	
Intersection Delay, s/veh	10.8
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	113	256	19	40	2	59	44	37	3	64	16
Future Vol, veh/h	24	113	256	19	40	2	59	44	37	3	64	16
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.80	0.80	0.80	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	26	124	281	21	44	2	74	55	46	4	77	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.9	8.8	9.8	9.1
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	6%	31%	4%
Vol Thru, %	31%	29%	66%	77%
Vol Right, %	26%	65%	3%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	140	393	61	83
LT Vol	59	24	19	3
Through Vol	44	113	40	64
RT Vol	37	256	2	16
Lane Flow Rate	175	432	68	100
Geometry Grp	1	1	1	1
Degree of Util (X)	0.247	0.517	0.097	0.143
Departure Headway (Hd)	5.073	4.307	5.135	5.148
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	700	834	691	688
Service Time	3.158	2.359	3.219	3.243
HCM Lane V/C Ratio	0.25	0.518	0.098	0.145
HCM Control Delay	9.8	11.9	8.8	9.1
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	1	3	0.3	0.5



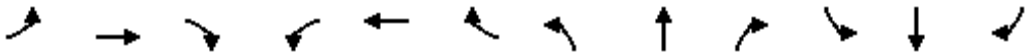
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	56	1650	16	30	923	66	29	54	65	313	37	29
Future Volume (veh/h)	56	1650	16	30	923	66	29	54	65	313	37	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	63	1854	18	35	1086	78	36	68	81	356	42	33
Peak Hour Factor	0.89	0.89	0.89	0.85	0.85	0.85	0.80	0.80	0.80	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	302	3002	29	138	2378	171	127	238	260	378	39	31
Arrive On Green	0.05	0.58	0.58	0.50	0.50	0.50	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1762	5156	50	248	4797	344	285	706	772	984	116	91
Grp Volume(v), veh/h	63	1210	662	35	762	402	185	0	0	431	0	0
Grp Sat Flow(s),veh/h/ln	1762	1684	1839	248	1684	1774	1764	0	0	1191	0	0
Q Serve(g_s), s	2.3	32.8	32.9	15.0	20.6	20.7	0.0	0.0	0.0	35.9	0.0	0.0
Cycle Q Clear(g_c), s	2.3	32.8	32.9	35.8	20.6	20.7	11.2	0.0	0.0	47.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.19	0.19		0.44	0.83		0.08
Lane Grp Cap(c), veh/h	302	1960	1071	138	1669	879	624	0	0	448	0	0
V/C Ratio(X)	0.21	0.62	0.62	0.25	0.46	0.46	0.30	0.00	0.00	0.96	0.00	0.00
Avail Cap(c_a), veh/h	326	1960	1071	138	1669	879	624	0	0	448	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.4	19.1	19.1	34.7	23.0	23.0	34.6	0.0	0.0	49.7	0.0	0.0
Incr Delay (d2), s/veh	0.3	1.5	2.7	4.4	0.9	1.7	0.3	0.0	0.0	32.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.9	20.9	23.0	2.1	14.3	15.2	8.9	0.0	0.0	27.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	16.8	20.6	21.8	39.1	23.9	24.7	34.8	0.0	0.0	82.7	0.0	0.0
LnGrp LOS	B	C	C	D	C	C	C	A	A	F	A	A
Approach Vol, veh/h		1935			1199			185			431	
Approach Delay, s/veh		20.8			24.6			34.8			82.7	
Approach LOS		C			C			C			F	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		87.0		53.0	12.1	74.9		53.0				
Change Period (Y+Rc), s		5.5		5.9	* 5.7	5.5		5.9				
Max Green Setting (Gmax), s		81.5		47.1	* 8.3	67.5		47.1				
Max Q Clear Time (g_c+I1), s		34.9		49.1	4.3	37.8		13.2				
Green Ext Time (p_c), s		42.3		0.0	0.1	22.2		3.3				

Intersection Summary												
HCM 6th Ctrl Delay			29.8									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	1902	121	75	868	38	84	87	125	148	114	15
Future Volume (veh/h)	21	1902	121	75	868	38	84	87	125	148	114	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.94	0.99		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	23	2045	130	80	923	40	88	91	130	168	130	17
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.96	0.96	0.96	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	355	2929	185	109	2997	130	148	150	192	213	141	18
Arrive On Green	0.60	0.60	0.60	0.60	0.60	0.60	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	590	4842	306	184	4954	214	376	494	632	569	464	59
Grp Volume(v), veh/h	23	1418	757	80	627	336	309	0	0	315	0	0
Grp Sat Flow(s),veh/h/ln	590	1684	1780	184	1684	1801	1503	0	0	1092	0	0
Q Serve(g_s), s	2.8	40.3	40.9	43.8	12.6	12.7	0.0	0.0	0.0	15.4	0.0	0.0
Cycle Q Clear(g_c), s	15.5	40.3	40.9	84.7	12.6	12.7	24.9	0.0	0.0	40.4	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.12	0.28		0.42	0.53		0.05
Lane Grp Cap(c), veh/h	355	2037	1077	109	2037	1090	490	0	0	372	0	0
V/C Ratio(X)	0.06	0.70	0.70	0.73	0.31	0.31	0.63	0.00	0.00	0.85	0.00	0.00
Avail Cap(c_a), veh/h	355	2037	1077	109	2037	1090	495	0	0	376	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.2	18.9	19.0	54.2	13.4	13.4	42.3	0.0	0.0	50.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	2.0	3.8	35.2	0.4	0.7	2.5	0.0	0.0	16.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.8	24.9	27.2	7.3	9.5	10.1	15.7	0.0	0.0	19.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.5	20.9	22.8	89.4	13.8	14.2	44.9	0.0	0.0	66.2	0.0	0.0
LnGrp LOS	B	C	C	F	B	B	D	A	A	E	A	A
Approach Vol, veh/h		2198			1043			309			315	
Approach Delay, s/veh		21.5			19.7			44.9			66.2	
Approach LOS		C			B			D			E	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		90.4		49.6		90.4		49.6				
Change Period (Y+Rc), s		5.7		* 7		5.7		* 7				
Max Green Setting (Gmax), s		84.3		* 43		84.3		* 43				
Max Q Clear Time (g_c+I1), s		42.9		42.4		86.7		26.9				
Green Ext Time (p_c), s		39.9		0.3		0.0		4.2				

Intersection Summary												
HCM 6th Ctrl Delay			26.5									
HCM 6th LOS			C									

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	13	26	14	153	53
Future Vol, veh/h	8	13	26	14	153	53
Conflicting Peds, #/hr	1	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	71	71	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	15	37	20	176	61

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	464	50	0	0	60	0
Stage 1	50	-	-	-	-	-
Stage 2	414	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	560	1024	-	-	1556	-
Stage 1	978	-	-	-	-	-
Stage 2	671	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	492	1021	-	-	1552	-
Mov Cap-2 Maneuver	492	-	-	-	-	-
Stage 1	861	-	-	-	-	-
Stage 2	670	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	724	1552	-
HCM Lane V/C Ratio	-	-	0.033	0.113	-
HCM Control Delay (s)	-	-	10.1	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.4	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	0	46	10	0
Future Vol, veh/h	0	0	0	46	10	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	25	75	75	50	50
Heavy Vehicles, %	0	0	7	7	0	0
Mvmt Flow	0	0	0	61	20	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	61	0	-	0	31	31
Stage 1	-	-	-	-	31	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1555	-	-	-	988	1049
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1555	-	-	-	988	1049
Mov Cap-2 Maneuver	-	-	-	-	988	-
Stage 1	-	-	-	-	997	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1555	-	-	-	988
HCM Lane V/C Ratio	-	-	-	-	0.02
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection	
Int Delay, s/veh	8.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	9	18	28	121	59	48	50	21	30	48	1
Future Vol, veh/h	2	9	18	28	121	59	48	50	21	30	48	1
Conflicting Peds, #/hr	5	0	0	0	0	5	13	0	1	1	0	13
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	88	88	88	81	81	81	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	9	9	9	4	4	4
Mvmt Flow	3	14	27	32	138	67	59	62	26	34	55	1

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	438	344	69	338	331	81	69	0	0	89	0	0
Stage 1	137	137	-	194	194	-	-	-	-	-	-	-
Stage 2	301	207	-	144	137	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.19	-	-	4.14	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.281	-	-	2.236	-	-
Pot Cap-1 Maneuver	532	582	1000	620	592	985	1489	-	-	1494	-	-
Stage 1	871	787	-	812	744	-	-	-	-	-	-	-
Stage 2	712	734	-	864	787	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	375	538	989	562	547	980	1473	-	-	1493	-	-
Mov Cap-2 Maneuver	375	538	-	562	547	-	-	-	-	-	-	-
Stage 1	825	759	-	777	712	-	-	-	-	-	-	-
Stage 2	511	702	-	805	759	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	14.2	3	2.8
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1473	-	-	720	628	1493	-	-
HCM Lane V/C Ratio	0.04	-	-	0.061	0.376	0.023	-	-
HCM Control Delay (s)	7.5	0	-	10.3	14.2	7.5	0	-
HCM Lane LOS	A	A	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	1.7	0.1	-	-

Intersection	
Intersection Delay, s/veh	25.8
Intersection LOS	D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	85	138	87	284	39	78	139	64	21	146	14
Future Vol, veh/h	21	85	138	87	284	39	78	139	64	21	146	14
Peak Hour Factor	0.75	0.75	0.75	0.90	0.90	0.90	0.85	0.85	0.85	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	4	4	4	5	5	5
Mvmt Flow	28	113	184	97	316	43	92	164	75	23	157	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	19.8	36.3	22.8	16.1
HCM LOS	C	E	C	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	28%	9%	21%	12%
Vol Thru, %	49%	35%	69%	81%
Vol Right, %	23%	57%	10%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	281	244	410	181
LT Vol	78	21	87	21
Through Vol	139	85	284	146
RT Vol	64	138	39	14
Lane Flow Rate	331	325	456	195
Geometry Grp	1	1	1	1
Degree of Util (X)	0.654	0.608	0.845	0.414
Departure Headway (Hd)	7.125	6.725	6.679	7.66
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	506	534	542	469
Service Time	5.191	4.791	4.739	5.738
HCM Lane V/C Ratio	0.654	0.609	0.841	0.416
HCM Control Delay	22.8	19.8	36.3	16.1
HCM Lane LOS	C	C	E	C
HCM 95th-tile Q	4.7	4	8.8	2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	45	525	81	485	1589	71	129	154	115	99	234	27
Future Volume (veh/h)	45	525	81	485	1589	71	129	154	115	99	234	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	0.99		0.95	0.90		0.83	0.92		0.83
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1807	1807	1807	1821	1821	1821
Adj Flow Rate, veh/h	51	597	92	516	1690	76	174	208	155	105	249	29
Peak Hour Factor	0.88	0.88	0.88	0.94	0.94	0.94	0.74	0.74	0.74	0.94	0.94	0.94
Percent Heavy Veh, %	0	0	0	0	0	0	3	3	3	2	2	2
Cap, veh/h	201	2027	607	579	2564	115	276	373	263	242	631	72
Arrive On Green	0.04	0.40	0.40	0.16	0.52	0.52	0.05	0.21	0.21	0.05	0.21	0.21
Sat Flow, veh/h	1762	5051	1512	1762	4942	222	1721	1807	1271	1734	3057	348
Grp Volume(v), veh/h	51	597	92	516	1151	615	174	208	155	105	138	140
Grp Sat Flow(s),veh/h/ln	1762	1684	1512	1762	1684	1797	1721	1807	1271	1734	1730	1675
Q Serve(g_s), s	2.3	11.2	5.4	22.5	35.0	35.0	7.5	14.5	15.4	6.7	9.7	10.1
Cycle Q Clear(g_c), s	2.3	11.2	5.4	22.5	35.0	35.0	7.5	14.5	15.4	6.7	9.7	10.1
Prop In Lane	1.00		1.00	1.00		0.12	1.00		1.00	1.00		0.21
Lane Grp Cap(c), veh/h	201	2027	607	579	1747	933	276	373	263	242	357	346
V/C Ratio(X)	0.25	0.29	0.15	0.89	0.66	0.66	0.63	0.56	0.59	0.43	0.39	0.40
Avail Cap(c_a), veh/h	220	2027	607	579	1747	933	276	386	271	242	369	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	28.5	26.7	21.3	24.6	24.6	46.8	49.8	50.2	41.6	47.9	48.1
Incr Delay (d2), s/veh	0.7	0.4	0.5	16.0	2.0	3.7	4.5	1.7	3.2	1.2	0.7	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	8.8	4.1	13.7	22.3	24.2	5.1	11.5	9.3	5.7	8.0	8.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.4	28.8	27.2	37.3	26.6	28.3	51.3	51.5	53.4	42.9	48.6	48.8
LnGrp LOS	C	C	C	D	C	C	D	D	D	D	D	D
Approach Vol, veh/h		740			2282			537			383	
Approach Delay, s/veh		28.3			29.5			52.0			47.1	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	62.0	14.0	35.0	12.5	78.4	14.0	35.0
Change Period (Y+Rc), s	6.5	5.8	6.5	* 6.1	6.5	5.8	6.5	* 6.1
Max Green Setting (Gmax), s	22.5	55.2	7.5	* 30	7.5	70.2	7.5	* 30
Max Q Clear Time (g_c+I1), s	4.3	13.2	9.5	12.1	4.3	37.0	8.7	17.4
Green Ext Time (p_c), s	0.0	13.9	0.0	3.7	0.0	30.2	0.0	3.1

Intersection Summary	
HCM 6th Ctrl Delay	34.0
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	4.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	186	4	1	34	58	62
Future Vol, veh/h	186	4	1	34	58	62
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	71	71	69	69
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	255	5	1	48	84	90

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	260	0	308	258
Stage 1	-	-	-	-	258	-
Stage 2	-	-	-	-	50	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1316	-	688	786
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	978	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1316	-	687	786
Mov Cap-2 Maneuver	-	-	-	-	687	-
Stage 1	-	-	-	-	789	-
Stage 2	-	-	-	-	978	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	735	-	-	1316	-
HCM Lane V/C Ratio	0.237	-	-	0.001	-
HCM Control Delay (s)	11.4	-	-	7.7	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0	-

Intersection	
Int Delay, s/veh	6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	174	85	0	7	45	1	6	1	52	7	0	0
Future Vol, veh/h	174	85	0	7	45	1	6	1	52	7	0	0
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	1	1	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	87	87	87	68	68	68	44	44	44
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	272	133	0	8	52	1	9	1	76	16	0	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	55	0	0	133	0	0	746	748	134	750	748	55
Stage 1	-	-	-	-	-	-	677	677	-	71	71	-
Stage 2	-	-	-	-	-	-	69	71	-	679	677	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1563	-	-	1464	-	-	332	343	920	330	343	1018
Stage 1	-	-	-	-	-	-	446	455	-	944	840	-
Stage 2	-	-	-	-	-	-	946	840	-	445	455	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1560	-	-	1464	-	-	283	276	919	256	276	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	276	-	256	276	-
Stage 1	-	-	-	-	-	-	362	369	-	766	833	-
Stage 2	-	-	-	-	-	-	940	833	-	330	369	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	5.2	1	10.4	20
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	282	919	1560	-	-	1464	-	-	256
HCM Lane V/C Ratio	0.037	0.083	0.174	-	-	0.005	-	-	0.062
HCM Control Delay (s)	18.2	9.3	7.8	0	-	7.5	0	-	20
HCM Lane LOS	C	A	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.3	0.6	-	-	0	-	-	0.2

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	3	6	5	41	0	112	29	1	1	39	2
Future Vol, veh/h	1	3	6	5	41	0	112	29	1	1	39	2
Peak Hour Factor	0.63	0.63	0.63	0.75	0.75	0.75	0.89	0.89	0.89	0.93	0.93	0.93
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	2	5	10	7	55	0	126	33	1	1	42	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.8	8.3	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	79%	10%	11%	2%
Vol Thru, %	20%	30%	89%	93%
Vol Right, %	1%	60%	0%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	142	10	46	42
LT Vol	112	1	5	1
Through Vol	29	3	41	39
RT Vol	1	6	0	2
Lane Flow Rate	160	16	61	45
Geometry Grp	1	1	1	1
Degree of Util (X)	0.187	0.018	0.075	0.052
Departure Headway (Hd)	4.223	4.089	4.4	4.133
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	844	880	819	854
Service Time	2.281	2.091	2.401	2.221
HCM Lane V/C Ratio	0.19	0.018	0.074	0.053
HCM Control Delay	8.3	7.2	7.8	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.7	0.1	0.2	0.2

Intersection	
Intersection Delay, s/veh	13.3
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	25	71	29	95	4	250	63	16	1	69	34
Future Vol, veh/h	12	25	71	29	95	4	250	63	16	1	69	34
Peak Hour Factor	0.85	0.85	0.85	0.82	0.82	0.82	0.73	0.73	0.73	0.67	0.67	0.67
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	14	29	84	35	116	5	342	86	22	1	103	51
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	9.7	10.7	16.4	9.7
HCM LOS	A	B	C	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	76%	11%	23%	1%
Vol Thru, %	19%	23%	74%	66%
Vol Right, %	5%	66%	3%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	329	108	128	104
LT Vol	250	12	29	1
Through Vol	63	25	95	69
RT Vol	16	71	4	34
Lane Flow Rate	451	127	156	155
Geometry Grp	1	1	1	1
Degree of Util (X)	0.633	0.19	0.248	0.223
Departure Headway (Hd)	5.06	5.392	5.722	5.168
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	712	665	628	694
Service Time	3.088	3.434	3.762	3.206
HCM Lane V/C Ratio	0.633	0.191	0.248	0.223
HCM Control Delay	16.4	9.7	10.7	9.7
HCM Lane LOS	C	A	B	A
HCM 95th-tile Q	4.5	0.7	1	0.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	46	736	5	63	2138	269	21	51	19	92	44	79
Future Volume (veh/h)	46	736	5	63	2138	269	21	51	19	92	44	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	50	800	5	68	2299	289	28	69	26	102	49	88
Peak Hour Factor	0.92	0.92	0.92	0.93	0.93	0.93	0.74	0.74	0.74	0.90	0.90	0.90
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	156	3718	23	486	2887	354	84	194	66	152	68	107
Arrive On Green	0.04	0.72	0.72	0.63	0.63	0.63	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1762	5178	32	685	4551	557	260	968	329	573	338	531
Grp Volume(v), veh/h	50	520	285	68	1685	903	123	0	0	239	0	0
Grp Sat Flow(s),veh/h/ln	1762	1684	1844	685	1684	1742	1557	0	0	1442	0	0
Q Serve(g_s), s	1.3	7.2	7.2	5.6	51.3	55.1	0.0	0.0	0.0	13.5	0.0	0.0
Cycle Q Clear(g_c), s	1.3	7.2	7.2	5.6	51.3	55.1	8.8	0.0	0.0	22.3	0.0	0.0
Prop In Lane	1.00		0.02	1.00		0.32	0.23		0.21	0.43		0.37
Lane Grp Cap(c), veh/h	156	2417	1324	486	2136	1105	344	0	0	326	0	0
V/C Ratio(X)	0.32	0.22	0.22	0.14	0.79	0.82	0.36	0.00	0.00	0.73	0.00	0.00
Avail Cap(c_a), veh/h	185	2417	1324	486	2136	1105	560	0	0	523	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	26.4	6.6	6.6	10.4	18.7	19.4	48.1	0.0	0.0	53.6	0.0	0.0
Incr Delay (d2), s/veh	1.2	0.2	0.4	0.6	3.0	6.7	0.6	0.0	0.0	3.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.3	5.5	6.2	1.9	30.7	35.0	7.3	0.0	0.0	13.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	6.8	7.0	11.0	21.8	26.2	48.8	0.0	0.0	56.8	0.0	0.0
LnGrp LOS	C	A	A	B	C	C	D	A	A	E	A	A
Approach Vol, veh/h		855			2656			123			239	
Approach Delay, s/veh		8.1			23.0			48.8			56.8	
Approach LOS		A			C			D			E	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	106.0	34.0	11.7	94.3	34.0
Change Period (Y+Rc), s	5.5	5.9	* 5.7	5.5	5.9
Max Green Setting (Gmax), s	81.5	47.1	* 8.3	67.5	47.1
Max Q Clear Time (g_c+I1), s	9.2	24.3	3.3	57.1	10.8
Green Ext Time (p_c), s	21.8	3.8	0.1	10.3	2.1

Intersection Summary	
HCM 6th Ctrl Delay	22.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	813	65	202	2301	57	110	81	69	92	143	34
Future Volume (veh/h)	21	813	65	202	2301	57	110	81	69	92	143	34
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.92	0.99		0.92	1.00		0.89	1.00		0.89
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	24	913	73	224	2557	63	131	96	82	121	188	45
Peak Hour Factor	0.89	0.89	0.89	0.90	0.90	0.90	0.84	0.84	0.84	0.76	0.76	0.76
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	76	2888	230	349	3087	75	167	112	87	158	218	50
Arrive On Green	0.61	0.61	0.61	0.61	0.61	0.61	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	118	4732	377	575	5058	124	436	374	293	415	729	167
Grp Volume(v), veh/h	24	648	338	224	1695	925	309	0	0	354	0	0
Grp Sat Flow(s),veh/h/ln	118	1684	1742	575	1684	1815	1102	0	0	1310	0	0
Q Serve(g_s), s	28.3	13.0	13.1	43.1	55.3	56.7	2.4	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	85.0	13.0	13.1	56.3	55.3	56.7	39.2	0.0	0.0	36.8	0.0	0.0
Prop In Lane	1.00		0.22	1.00		0.07	0.42		0.27	0.34		0.13
Lane Grp Cap(c), veh/h	76	2055	1063	349	2055	1107	366	0	0	426	0	0
V/C Ratio(X)	0.32	0.32	0.32	0.64	0.83	0.84	0.84	0.00	0.00	0.83	0.00	0.00
Avail Cap(c_a), veh/h	76	2055	1063	349	2055	1107	377	0	0	439	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	55.5	13.2	13.2	26.8	21.4	21.7	48.0	0.0	0.0	46.9	0.0	0.0
Incr Delay (d2), s/veh	10.7	0.4	0.8	8.8	3.9	7.5	15.5	0.0	0.0	12.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	9.7	10.1	11.8	33.2	37.5	18.8	0.0	0.0	20.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	66.2	13.6	14.0	35.6	25.3	29.2	63.5	0.0	0.0	59.3	0.0	0.0
LnGrp LOS	E	B	B	D	C	C	E	A	A	E	A	A
Approach Vol, veh/h		1010			2844			309			354	
Approach Delay, s/veh		15.0			27.4			63.5			59.3	
Approach LOS		B			C			E			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	91.1	48.9	91.1	48.9
Change Period (Y+Rc), s	5.7	* 7	5.7	* 7
Max Green Setting (Gmax), s	84.3	* 43	84.3	* 43
Max Q Clear Time (g_c+I1), s	87.0	38.8	58.7	41.2
Green Ext Time (p_c), s	0.0	1.7	25.5	0.7

Intersection Summary	
HCM 6th Ctrl Delay	29.6
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	26	104	38	11	21	30
Future Vol, veh/h	26	104	38	11	21	30
Conflicting Peds, #/hr	0	0	0	2	2	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	83	83	71	71	82	82
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	31	125	54	15	26	37

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	153	64	0	0	71	0
Stage 1	64	-	-	-	-	-
Stage 2	89	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	843	1006	-	-	1542	-
Stage 1	964	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	827	1004	-	-	1539	-
Mov Cap-2 Maneuver	827	-	-	-	-	-
Stage 1	946	-	-	-	-	-
Stage 2	940	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	963	1539	-
HCM Lane V/C Ratio	-	-	0.163	0.017	-
HCM Control Delay (s)	-	-	9.5	7.4	0
HCM Lane LOS	-	-	A	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0.1	-

Intersection	
Int Delay, s/veh	7.8

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	1	6	43	0
Future Vol, veh/h	0	0	1	6	43	0
Conflicting Peds, #/hr	1	0	0	1	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	25	44	44	41	41
Heavy Vehicles, %	0	0	25	25	0	0
Mvmt Flow	0	0	2	14	105	0

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	11	13
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1613	-	-	-	1014	1073
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1028	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1612	-	-	-	1012	1069
Mov Cap-2 Maneuver	-	-	-	-	1012	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1027	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	1012
HCM Lane V/C Ratio	-	-	-	-	0.104
HCM Control Delay (s)	0	-	-	-	9
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.3

Intersection	
Int Delay, s/veh	97.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	84	39	187	43	36	30	46	38	57	106	5
Future Vol, veh/h	1	84	39	187	43	36	30	46	38	57	106	5
Conflicting Peds, #/hr	8	0	0	0	0	8	15	0	4	4	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	50	50	50	78	78	78	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	2	2	2
Mvmt Flow	1	109	51	374	86	72	38	59	49	64	119	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	512	453	137	494	432	96	140	0	0	112	0	0
Stage 1	265	265	-	164	164	-	-	-	-	-	-	-
Stage 2	247	188	-	330	268	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	476	506	917	489	519	966	1425	-	-	1478	-	-
Stage 1	745	693	-	843	766	-	-	-	-	-	-	-
Stage 2	761	748	-	687	691	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	351	461	905	~ 356	473	956	1407	-	-	1473	-	-
Mov Cap-2 Maneuver	351	461	-	~ 356	473	-	-	-	-	-	-	-
Stage 1	714	652	-	816	741	-	-	-	-	-	-	-
Stage 2	600	724	-	515	650	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.4	182.8	2	2.6
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1407	-	-	543	407	1473	-	-
HCM Lane V/C Ratio	0.027	-	-	0.297	1.307	0.043	-	-
HCM Control Delay (s)	7.6	0	-	14.4	182.8	7.6	0	-
HCM Lane LOS	A	A	-	B	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.2	24	0.1	-	-

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

Intersection	
Intersection Delay, s/veh	54.1
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	277	143	49	89	19	51	166	95	65	333	14
Future Vol, veh/h	31	277	143	49	89	19	51	166	95	65	333	14
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.97	0.97	0.97	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	35	311	161	56	102	22	53	171	98	69	354	15
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	81.1	18.7	28.5	56.1
HCM LOS	F	C	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	7%	31%	16%
Vol Thru, %	53%	61%	57%	81%
Vol Right, %	30%	32%	12%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	312	451	157	412
LT Vol	51	31	49	65
Through Vol	166	277	89	333
RT Vol	95	143	19	14
Lane Flow Rate	322	507	180	438
Geometry Grp	1	1	1	1
Degree of Util (X)	0.708	1.047	0.436	0.937
Departure Headway (Hd)	8.132	7.437	8.944	7.878
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	447	492	406	465
Service Time	6.132	5.437	6.944	5.878
HCM Lane V/C Ratio	0.72	1.03	0.443	0.942
HCM Control Delay	28.5	81.1	18.7	56.1
HCM Lane LOS	D	F	C	F
HCM 95th-tile Q	5.4	15.3	2.2	11

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1274	86	190	766	55	153	214	268	178	282	28
Future Volume (veh/h)	66	1274	86	190	766	55	153	214	268	178	282	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	1.00		0.87	0.91		0.81	0.94		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1836	1836	1836	1836	1836	1836
Adj Flow Rate, veh/h	78	1499	101	209	842	60	191	268	335	200	317	31
Peak Hour Factor	0.85	0.85	0.85	0.91	0.91	0.91	0.80	0.80	0.80	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	371	2337	664	265	2347	166	287	418	287	219	669	64
Arrive On Green	0.05	0.46	0.46	0.08	0.49	0.49	0.07	0.23	0.23	0.05	0.21	0.21
Sat Flow, veh/h	1762	5051	1435	1762	4759	337	1748	1836	1259	1748	3134	301
Grp Volume(v), veh/h	78	1499	101	209	594	308	191	268	335	200	174	174
Grp Sat Flow(s),veh/h/ln	1762	1684	1435	1762	1684	1729	1748	1836	1259	1748	1744	1691
Q Serve(g_s), s	3.2	31.8	5.7	8.7	15.2	15.4	9.5	18.5	31.9	7.5	12.2	12.6
Cycle Q Clear(g_c), s	3.2	31.8	5.7	8.7	15.2	15.4	9.5	18.5	31.9	7.5	12.2	12.6
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		0.18
Lane Grp Cap(c), veh/h	371	2337	664	265	1660	852	287	418	287	219	372	361
V/C Ratio(X)	0.21	0.64	0.15	0.79	0.36	0.36	0.67	0.64	1.17	0.91	0.47	0.48
Avail Cap(c_a), veh/h	406	2337	664	297	1660	852	287	418	287	219	372	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	28.7	21.7	25.7	21.8	21.9	44.2	48.9	54.0	51.8	48.1	48.3
Incr Delay (d2), s/veh	0.3	1.4	0.5	12.0	0.6	1.2	5.8	3.3	106.6	37.7	0.9	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	20.5	4.0	8.4	11.1	11.6	4.6	14.5	28.7	10.3	9.7	9.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	30.1	22.2	37.7	22.4	23.1	49.9	52.2	160.7	89.5	49.0	49.3
LnGrp LOS	B	C	C	D	C	C	D	D	F	F	D	D
Approach Vol, veh/h		1678			1111			794			548	
Approach Delay, s/veh		29.1			25.5			97.4			63.9	
Approach LOS		C			C			F			E	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	70.6	16.0	36.0	13.2	74.8	14.0	38.0
Change Period (Y+Rc), s	6.5	5.8	6.5	* 6.1	6.5	5.8	6.5	* 6.1
Max Green Setting (Gmax), s	13.5	62.2	9.5	* 28	9.5	66.2	7.5	* 32
Max Q Clear Time (g_c+I1), s	10.7	33.8	11.5	14.6	5.2	17.4	9.5	33.9
Green Ext Time (p_c), s	0.3	24.8	0.0	3.9	0.1	22.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	45.9
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	48	135	11	302	15	2
Future Vol, veh/h	48	135	11	302	15	2
Conflicting Peds, #/hr	0	5	5	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	48	48	71	71
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	64	180	23	629	21	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	249	0	835	160
Stage 1	-	-	-	-	159	-
Stage 2	-	-	-	-	676	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1328	-	340	890
Stage 1	-	-	-	-	875	-
Stage 2	-	-	-	-	509	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1322	-	329	885
Mov Cap-2 Maneuver	-	-	-	-	329	-
Stage 1	-	-	-	-	848	-
Stage 2	-	-	-	-	508	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	355	-	-	1322	-
HCM Lane V/C Ratio	0.067	-	-	0.017	-
HCM Control Delay (s)	15.9	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

Intersection	
Int Delay, s/veh	10.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	1	54	27	6	138	7	3	1	9	2	9	162
Future Vol, veh/h	1	54	27	6	138	7	3	1	9	2	9	162
Conflicting Peds, #/hr	22	0	0	0	0	22	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	60	60	60	54	54	54	37	37	37
Heavy Vehicles, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	65	33	10	230	12	6	2	17	5	24	438

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	264	0	0	98	0	0	571	368	89	370	378	258
Stage 1	-	-	-	-	-	-	84	84	-	278	278	-
Stage 2	-	-	-	-	-	-	487	284	-	92	100	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1277	-	-	1508	-	-	435	564	975	590	557	786
Stage 1	-	-	-	-	-	-	929	829	-	733	684	-
Stage 2	-	-	-	-	-	-	566	680	-	920	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1253	-	-	1508	-	-	180	548	969	561	541	771
Mov Cap-2 Maneuver	-	-	-	-	-	-	180	548	-	561	541	-
Stage 1	-	-	-	-	-	-	928	828	-	718	666	-
Stage 2	-	-	-	-	-	-	234	662	-	896	815	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.3	13	17.4
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	216	969	1253	-	-	1508	-	-	751
HCM Lane V/C Ratio	0.034	0.017	0.001	-	-	0.007	-	-	0.623
HCM Control Delay (s)	22.3	8.8	7.9	0	-	7.4	0	-	17.4
HCM Lane LOS	C	A	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.1	0	-	-	0	-	-	4.4

Intersection	
Intersection Delay, s/veh	7.7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	11	153	7	5	4	14	17	7	5	50	1
Future Vol, veh/h	0	11	153	7	5	4	14	17	7	5	50	1
Peak Hour Factor	0.78	0.78	0.78	0.67	0.67	0.67	0.86	0.86	0.86	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	14	196	10	7	6	16	20	8	7	69	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.4	7.7	7.9
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	0%	44%	9%
Vol Thru, %	45%	7%	31%	89%
Vol Right, %	18%	93%	25%	2%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	164	16	56
LT Vol	14	0	7	5
Through Vol	17	11	5	50
RT Vol	7	153	4	1
Lane Flow Rate	44	210	24	78
Geometry Grp	1	1	1	1
Degree of Util (X)	0.053	0.208	0.028	0.094
Departure Headway (Hd)	4.332	3.567	4.212	4.348
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	817	990	836	817
Service Time	2.41	1.649	2.309	2.416
HCM Lane V/C Ratio	0.054	0.212	0.029	0.095
HCM Control Delay	7.7	7.6	7.4	7.9
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.8	0.1	0.3

Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	116	262	19	41	2	60	45	38	3	66	16
Future Vol, veh/h	25	116	262	19	41	2	60	45	38	3	66	16
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.80	0.80	0.80	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	27	127	288	21	46	2	75	56	48	4	80	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.3	8.8	10	9.2
HCM LOS	B	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	6%	31%	4%
Vol Thru, %	31%	29%	66%	78%
Vol Right, %	27%	65%	3%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	143	403	62	85
LT Vol	60	25	19	3
Through Vol	45	116	41	66
RT Vol	38	262	2	16
Lane Flow Rate	179	443	69	102
Geometry Grp	1	1	1	1
Degree of Util (X)	0.254	0.532	0.099	0.148
Departure Headway (Hd)	5.107	4.328	5.17	5.189
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	695	828	685	682
Service Time	3.195	2.385	3.26	3.287
HCM Lane V/C Ratio	0.258	0.535	0.101	0.15
HCM Control Delay	10	12.3	8.8	9.2
HCM Lane LOS	A	B	A	A
HCM 95th-tile Q	1	3.2	0.3	0.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1692	16	31	946	68	30	55	67	321	38	30
Future Volume (veh/h)	57	1692	16	31	946	68	30	55	67	321	38	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	64	1901	18	36	1113	80	38	69	84	365	43	34
Peak Hour Factor	0.89	0.89	0.89	0.85	0.85	0.85	0.80	0.80	0.80	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	3002	28	131	2377	171	129	234	261	375	39	31
Arrive On Green	0.05	0.58	0.58	0.50	0.50	0.50	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1762	5158	49	237	4796	344	293	694	775	975	115	91
Grp Volume(v), veh/h	64	1241	678	36	781	412	191	0	0	442	0	0
Grp Sat Flow(s),veh/h/ln	1762	1684	1839	237	1684	1773	1763	0	0	1181	0	0
Q Serve(g_s), s	2.3	34.1	34.2	16.6	21.3	21.4	0.0	0.0	0.0	35.5	0.0	0.0
Cycle Q Clear(g_c), s	2.3	34.1	34.2	38.7	21.3	21.4	11.6	0.0	0.0	47.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.19	0.20		0.44	0.83		0.08
Lane Grp Cap(c), veh/h	296	1960	1071	131	1669	879	624	0	0	444	0	0
V/C Ratio(X)	0.22	0.63	0.63	0.27	0.47	0.47	0.31	0.00	0.00	0.99	0.00	0.00
Avail Cap(c_a), veh/h	319	1960	1071	131	1669	879	624	0	0	444	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.6	19.4	19.4	36.2	23.2	23.2	34.7	0.0	0.0	50.5	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.6	2.9	5.1	0.9	1.8	0.3	0.0	0.0	41.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	21.6	23.8	2.2	14.7	15.6	9.1	0.0	0.0	29.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	20.9	22.2	41.3	24.1	25.0	35.0	0.0	0.0	91.8	0.0	0.0
LnGrp LOS	B	C	C	D	C	C	C	A	A	F	A	A
Approach Vol, veh/h		1983			1229			191			442	
Approach Delay, s/veh		21.2			24.9			35.0			91.8	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	87.0	53.0	12.1	74.9	53.0
Change Period (Y+Rc), s	5.5	5.9	* 5.7	5.5	5.9
Max Green Setting (Gmax), s	81.5	47.1	* 8.3	67.5	47.1
Max Q Clear Time (g_c+I1), s	36.2	49.1	4.3	40.7	13.6
Green Ext Time (p_c), s	41.7	0.0	0.1	20.8	3.4

Intersection Summary	
HCM 6th Ctrl Delay	31.2
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	1950	124	77	890	39	86	89	128	152	117	15
Future Volume (veh/h)	22	1950	124	77	890	39	86	89	128	152	117	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.94	0.99		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	24	2097	133	82	947	41	90	93	133	173	133	17
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.96	0.96	0.96	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	2916	184	103	2983	129	149	151	194	214	140	17
Arrive On Green	0.60	0.60	0.60	0.60	0.60	0.60	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	577	4842	305	174	4954	214	379	492	633	567	455	57
Grp Volume(v), veh/h	24	1453	777	82	643	345	316	0	0	323	0	0
Grp Sat Flow(s),veh/h/ln	577	1684	1780	174	1684	1801	1504	0	0	1079	0	0
Q Serve(g_s), s	3.0	42.3	43.1	41.2	13.1	13.2	0.0	0.0	0.0	16.4	0.0	0.0
Cycle Q Clear(g_c), s	16.2	42.3	43.1	84.3	13.1	13.2	25.5	0.0	0.0	41.9	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.12	0.28		0.42	0.54		0.05
Lane Grp Cap(c), veh/h	344	2027	1072	103	2027	1084	495	0	0	371	0	0
V/C Ratio(X)	0.07	0.72	0.72	0.80	0.32	0.32	0.64	0.00	0.00	0.87	0.00	0.00
Avail Cap(c_a), veh/h	344	2027	1072	103	2027	1084	495	0	0	371	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	19.5	19.7	57.1	13.7	13.7	42.2	0.0	0.0	50.4	0.0	0.0
Incr Delay (d2), s/veh	0.4	2.2	4.3	46.0	0.4	0.8	2.7	0.0	0.0	19.5	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	26.0	28.5	7.8	9.7	10.5	16.0	0.0	0.0	20.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	21.7	23.9	103.1	14.1	14.5	45.0	0.0	0.0	69.9	0.0	0.0
LnGrp LOS	B	C	C	F	B	B	D	A	A	E	A	A
Approach Vol, veh/h		2254			1070			316			323	
Approach Delay, s/veh		22.4			21.0			45.0			69.9	
Approach LOS		C			C			D			E	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	90.0	50.0	90.0	50.0
Change Period (Y+Rc), s	5.7	* 7	5.7	* 7
Max Green Setting (Gmax), s	84.3	* 43	84.3	* 43
Max Q Clear Time (g_c+I1), s	45.1	43.9	86.3	27.5
Green Ext Time (p_c), s	38.0	0.0	0.0	4.2

Intersection Summary	
HCM 6th Ctrl Delay	27.7
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	13	27	14	157	54
Future Vol, veh/h	8	13	27	14	157	54
Conflicting Peds, #/hr	1	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	71	71	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	15	38	20	180	62

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	474	51	0	0	61	0
Stage 1	51	-	-	-	-	-
Stage 2	423	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	553	1023	-	-	1555	-
Stage 1	977	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	484	1020	-	-	1551	-
Mov Cap-2 Maneuver	484	-	-	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	664	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	5.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	717	1551	-
HCM Lane V/C Ratio	-	-	0.033	0.116	-
HCM Control Delay (s)	-	-	10.2	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.4	-

Intersection	
Int Delay, s/veh	8.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	1	6	59	9
Future Vol, veh/h	0	0	1	6	59	9
Conflicting Peds, #/hr	1	0	0	1	1	3
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	25	25	44	44	41	41
Heavy Vehicles, %	0	0	25	25	0	0
Mvmt Flow	0	0	2	14	144	22

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	17	0	-	0	11	13
Stage 1	-	-	-	-	10	-
Stage 2	-	-	-	-	1	-
Critical Hdwy	4.1	-	-	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	2.2	-	-	-	3.5	3.3
Pot Cap-1 Maneuver	1613	-	-	-	1014	1073
Stage 1	-	-	-	-	1018	-
Stage 2	-	-	-	-	1028	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1612	-	-	-	1012	1069
Mov Cap-2 Maneuver	-	-	-	-	1012	-
Stage 1	-	-	-	-	1017	-
Stage 2	-	-	-	-	1027	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1612	-	-	-	1019
HCM Lane V/C Ratio	-	-	-	-	0.163
HCM Control Delay (s)	0	-	-	-	9.2
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.6

Intersection	
Int Delay, s/veh	302.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	84	39	379	84	36	30	46	38	58	121	5
Future Vol, veh/h	1	84	39	379	84	36	30	46	38	58	121	5
Conflicting Peds, #/hr	8	0	0	0	0	8	15	0	4	4	0	15
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	65	65	65	78	78	78	89	89	89
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	2	2	2
Mvmt Flow	1	109	51	583	129	55	38	59	49	65	136	6

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	544	472	154	513	451	96	157	0	0	112	0	0
Stage 1	284	284	-	164	164	-	-	-	-	-	-	-
Stage 2	260	188	-	349	287	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.15	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.245	-	-	2.218	-	-
Pot Cap-1 Maneuver	453	493	897	~ 475	507	966	1405	-	-	1478	-	-
Stage 1	727	680	-	843	766	-	-	-	-	-	-	-
Stage 2	749	748	-	671	678	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	310	449	886	~ 342	461	956	1387	-	-	1473	-	-
Mov Cap-2 Maneuver	310	449	-	~ 342	461	-	-	-	-	-	-	-
Stage 1	697	639	-	816	741	-	-	-	-	-	-	-
Stage 2	562	724	-	~ 499	637	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14.8	$ 501.4	2	2.4
HCM LOS	B	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1387	-	-	529	376	1473	-	-
HCM Lane V/C Ratio	0.028	-	-	0.304	2.042	0.044	-	-
HCM Control Delay (s)	7.7	0	-	14.8	$ 501.4	7.6	0	-
HCM Lane LOS	A	A	-	B	F	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.3	54.3	0.1	-	-

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

Intersection	
Intersection Delay, s/veh	118.7
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	31	277	143	49	89	19	51	166	95	66	526	28
Future Vol, veh/h	31	277	143	49	89	19	51	166	95	66	526	28
Peak Hour Factor	0.89	0.89	0.89	0.87	0.87	0.87	0.97	0.97	0.97	0.94	0.94	0.94
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	1	1	1
Mvmt Flow	35	311	161	56	102	22	53	171	98	70	560	30
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	84.1	20.9	31.4	214.7
HCM LOS	F	C	D	F

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	7%	31%	11%
Vol Thru, %	53%	61%	57%	85%
Vol Right, %	30%	32%	12%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	312	451	157	620
LT Vol	51	31	49	66
Through Vol	166	277	89	526
RT Vol	95	143	19	28
Lane Flow Rate	322	507	180	660
Geometry Grp	1	1	1	1
Degree of Util (X)	0.712	1.042	0.441	1.399
Departure Headway (Hd)	9.018	8.36	10.159	7.868
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	405	436	357	468
Service Time	7.018	6.36	8.159	5.868
HCM Lane V/C Ratio	0.795	1.163	0.504	1.41
HCM Control Delay	31.4	84.1	20.9	214.7
HCM Lane LOS	D	F	C	F
HCM 95th-tile Q	5.4	14.2	2.2	30.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1274	86	190	766	55	153	214	268	237	401	43
Future Volume (veh/h)	66	1274	86	190	766	55	153	214	268	237	401	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.92	1.00		0.87	0.94		0.81	0.94		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1836	1836	1836	1836	1836	1836
Adj Flow Rate, veh/h	78	1499	101	209	842	60	191	268	335	266	451	48
Peak Hour Factor	0.85	0.85	0.85	0.91	0.91	0.91	0.80	0.80	0.80	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	371	2337	664	265	2347	166	236	418	287	219	661	70
Arrive On Green	0.05	0.46	0.46	0.08	0.49	0.49	0.07	0.23	0.23	0.05	0.21	0.21
Sat Flow, veh/h	1762	5051	1435	1762	4759	337	1748	1836	1259	1748	3097	326
Grp Volume(v), veh/h	78	1499	101	209	594	308	191	268	335	266	252	247
Grp Sat Flow(s),veh/h/ln	1762	1684	1435	1762	1684	1729	1748	1836	1259	1748	1744	1679
Q Serve(g_s), s	3.2	31.8	5.7	8.7	15.2	15.4	9.5	18.5	31.9	7.5	18.6	19.0
Cycle Q Clear(g_c), s	3.2	31.8	5.7	8.7	15.2	15.4	9.5	18.5	31.9	7.5	18.6	19.0
Prop In Lane	1.00		1.00	1.00		0.19	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	371	2337	664	265	1660	852	236	418	287	219	372	358
V/C Ratio(X)	0.21	0.64	0.15	0.79	0.36	0.36	0.81	0.64	1.17	1.21	0.68	0.69
Avail Cap(c_a), veh/h	406	2337	664	297	1660	852	236	418	287	219	372	358
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	18.1	28.7	21.7	25.7	21.8	21.9	46.6	48.9	54.0	53.4	50.6	50.8
Incr Delay (d2), s/veh	0.3	1.4	0.5	12.0	0.6	1.2	18.5	3.3	106.6	130.5	4.8	5.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.7	20.5	4.0	8.4	11.1	11.6	6.9	14.5	28.7	19.5	14.1	14.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.4	30.1	22.2	37.7	22.4	23.1	65.1	52.2	160.7	183.9	55.4	56.3
LnGrp LOS	B	C	C	D	C	C	E	D	F	F	E	E
Approach Vol, veh/h		1678			1111			794			765	
Approach Delay, s/veh		29.1			25.5			101.0			100.4	
Approach LOS		C			C			F			F	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	17.4	70.6	16.0	36.0	13.2	74.8	14.0	38.0
Change Period (Y+Rc), s	6.5	5.8	6.5	* 6.1	6.5	5.8	6.5	* 6.1
Max Green Setting (Gmax), s	13.5	62.2	9.5	* 28	9.5	66.2	7.5	* 32
Max Q Clear Time (g_c+I1), s	10.7	33.8	11.5	21.0	5.2	17.4	9.5	33.9
Green Ext Time (p_c), s	0.3	24.8	0.0	3.4	0.1	22.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	53.8
HCM 6th LOS	D

Notes

User approved pedestrian interval to be less than phase max green.

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	0.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	49	135	30	536	15	2
Future Vol, veh/h	49	135	30	536	15	2
Conflicting Peds, #/hr	0	5	5	0	1	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	48	48	71	71
Heavy Vehicles, %	1	1	0	0	0	0
Mvmt Flow	65	180	63	1117	21	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	250	0	1404	161
Stage 1	-	-	-	-	160	-
Stage 2	-	-	-	-	1244	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1327	-	155	889
Stage 1	-	-	-	-	874	-
Stage 2	-	-	-	-	274	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1321	-	135	884
Mov Cap-2 Maneuver	-	-	-	-	135	-
Stage 1	-	-	-	-	761	-
Stage 2	-	-	-	-	274	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	33.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	150	-	-	1321	-
HCM Lane V/C Ratio	0.16	-	-	0.047	-
HCM Control Delay (s)	33.5	-	-	7.9	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	0.6	-	-	0.1	-

Intersection	
Int Delay, s/veh	109.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↰	↱		↕	
Traffic Vol, veh/h	1	55	27	24	295	7	3	1	9	2	14	257
Future Vol, veh/h	1	55	27	24	295	7	3	1	9	2	14	257
Conflicting Peds, #/hr	22	0	0	0	0	22	0	0	7	7	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	Stop	-	-	None
Storage Length	-	-	-	-	-	-	-	-	100	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	83	83	83	60	60	60	54	54	54	37	37	37
Heavy Vehicles, %	6	6	6	0	0	0	0	0	0	0	0	0
Mvmt Flow	1	66	33	40	492	12	6	2	17	5	38	695

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	526	0	0	99	0	0	1030	691	90	693	701	520
Stage 1	-	-	-	-	-	-	85	85	-	600	600	-
Stage 2	-	-	-	-	-	-	945	606	-	93	101	-
Critical Hdwy	4.16	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1021	-	-	1507	-	-	214	370	973	360	365	~ 560
Stage 1	-	-	-	-	-	-	928	828	-	491	493	-
Stage 2	-	-	-	-	-	-	317	490	-	919	815	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1002	-	-	1507	-	-	-	349	967	334	345	~ 550
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	349	-	334	345	-
Stage 1	-	-	-	-	-	-	927	827	-	481	466	-
Stage 2	-	-	-	-	-	-	-	463	-	895	814	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5		208.6
HCM LOS			-	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	-	967	1002	-	-	1507	-	-	531
HCM Lane V/C Ratio	-	0.017	0.001	-	-	0.027	-	-	1.39
HCM Control Delay (s)	-	8.8	8.6	0	-	7.5	0	-	208.6
HCM Lane LOS	-	A	A	A	-	A	A	-	F
HCM 95th %tile Q(veh)	-	0.1	0	-	-	0.1	-	-	34

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

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	11	172	7	5	4	14	17	7	5	73	1
Future Vol, veh/h	0	11	172	7	5	4	14	17	7	5	73	1
Peak Hour Factor	0.78	0.78	0.78	0.67	0.67	0.67	0.86	0.86	0.86	0.72	0.72	0.72
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	14	221	10	7	6	16	20	8	7	101	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	7.6	7.8	8.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	37%	0%	44%	6%
Vol Thru, %	45%	6%	31%	92%
Vol Right, %	18%	94%	25%	1%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	38	183	16	79
LT Vol	14	0	7	5
Through Vol	17	11	5	73
RT Vol	7	172	4	1
Lane Flow Rate	44	235	24	110
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.243	0.029	0.134
Departure Headway (Hd)	4.504	3.723	4.418	4.389
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	797	969	814	804
Service Time	2.52	1.726	2.427	2.486
HCM Lane V/C Ratio	0.055	0.243	0.029	0.137
HCM Control Delay	7.8	7.9	7.6	8.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	1	0.1	0.5

Intersection	
Intersection Delay, s/veh	11.2
Intersection LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	25	116	263	19	41	2	60	45	38	3	80	16
Future Vol, veh/h	25	116	263	19	41	2	60	45	38	3	80	16
Peak Hour Factor	0.91	0.91	0.91	0.90	0.90	0.90	0.80	0.80	0.80	0.83	0.83	0.83
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	27	127	289	21	46	2	75	56	48	4	96	19
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	12.5	8.9	10.1	9.5
HCM LOS	B	A	B	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	42%	6%	31%	3%
Vol Thru, %	31%	29%	66%	81%
Vol Right, %	27%	65%	3%	16%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	143	404	62	99
LT Vol	60	25	19	3
Through Vol	45	116	41	80
RT Vol	38	263	2	16
Lane Flow Rate	179	444	69	119
Geometry Grp	1	1	1	1
Degree of Util (X)	0.26	0.539	0.102	0.176
Departure Headway (Hd)	5.243	4.372	5.33	5.32
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	688	817	675	677
Service Time	3.247	2.45	3.34	3.329
HCM Lane V/C Ratio	0.26	0.543	0.102	0.176
HCM Control Delay	10.1	12.5	8.9	9.5
HCM Lane LOS	B	B	A	A
HCM 95th-tile Q	1	3.3	0.3	0.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	57	1751	16	31	946	68	30	55	67	336	38	30
Future Volume (veh/h)	57	1751	16	31	946	68	30	55	67	336	38	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.96	1.00		0.98	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	64	1967	18	36	1113	80	38	69	84	382	43	34
Peak Hour Factor	0.89	0.89	0.89	0.85	0.85	0.85	0.80	0.80	0.80	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	296	3004	27	123	2377	171	130	234	261	377	37	29
Arrive On Green	0.05	0.58	0.58	0.50	0.50	0.50	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1762	5160	47	222	4796	344	294	695	776	981	110	87
Grp Volume(v), veh/h	64	1283	702	36	781	412	191	0	0	459	0	0
Grp Sat Flow(s),veh/h/ln	1762	1684	1840	222	1684	1773	1765	0	0	1179	0	0
Q Serve(g_s), s	2.3	36.0	36.1	18.3	21.3	21.4	0.0	0.0	0.0	35.5	0.0	0.0
Cycle Q Clear(g_c), s	2.3	36.0	36.1	42.3	21.3	21.4	11.6	0.0	0.0	47.1	0.0	0.0
Prop In Lane	1.00		0.03	1.00		0.19	0.20		0.44	0.83		0.07
Lane Grp Cap(c), veh/h	296	1960	1071	123	1669	879	625	0	0	444	0	0
V/C Ratio(X)	0.22	0.65	0.66	0.29	0.47	0.47	0.31	0.00	0.00	1.03	0.00	0.00
Avail Cap(c_a), veh/h	319	1960	1071	123	1669	879	625	0	0	444	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	16.6	19.7	19.8	38.1	23.2	23.2	34.7	0.0	0.0	50.6	0.0	0.0
Incr Delay (d2), s/veh	0.4	1.7	3.1	5.9	0.9	1.8	0.3	0.0	0.0	52.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.0	22.7	25.0	2.3	14.7	15.6	9.1	0.0	0.0	31.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	17.0	21.5	22.9	44.0	24.1	25.0	35.0	0.0	0.0	102.6	0.0	0.0
LnGrp LOS	B	C	C	D	C	C	C	A	A	F	A	A
Approach Vol, veh/h		2049			1229			191			459	
Approach Delay, s/veh		21.8			25.0			35.0			102.6	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	2	4	5	6	8
Phs Duration (G+Y+Rc), s	87.0	53.0	12.1	74.9	53.0
Change Period (Y+Rc), s	5.5	5.9	* 5.7	5.5	5.9
Max Green Setting (Gmax), s	81.5	47.1	* 8.3	67.5	47.1
Max Q Clear Time (g_c+I1), s	38.1	49.1	4.3	44.3	13.6
Green Ext Time (p_c), s	40.6	0.0	0.1	18.5	3.4

Intersection Summary	
HCM 6th Ctrl Delay	32.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	22	2024	124	77	890	39	86	89	128	180	117	15
Future Volume (veh/h)	22	2024	124	77	890	39	86	89	128	180	117	15
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	1.00		0.94	0.99		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850	1850
Adj Flow Rate, veh/h	24	2176	133	82	947	41	90	93	133	205	133	17
Peak Hour Factor	0.93	0.93	0.93	0.94	0.94	0.94	0.96	0.96	0.96	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	0	0	0	0	0	0	0
Cap, veh/h	344	2924	177	96	2983	129	153	155	200	227	121	15
Arrive On Green	0.60	0.60	0.60	0.60	0.60	0.60	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	577	4855	294	161	4954	214	391	505	651	606	393	50
Grp Volume(v), veh/h	24	1503	806	82	643	345	316	0	0	355	0	0
Grp Sat Flow(s),veh/h/ln	577	1684	1783	161	1684	1801	1546	0	0	1049	0	0
Q Serve(g_s), s	3.0	44.9	45.9	38.4	13.1	13.2	0.0	0.0	0.0	18.3	0.0	0.0
Cycle Q Clear(g_c), s	16.2	44.9	45.9	84.3	13.1	13.2	24.7	0.0	0.0	43.0	0.0	0.0
Prop In Lane	1.00		0.17	1.00		0.12	0.28		0.42	0.58		0.05
Lane Grp Cap(c), veh/h	344	2027	1073	96	2027	1084	508	0	0	363	0	0
V/C Ratio(X)	0.07	0.74	0.75	0.86	0.32	0.32	0.62	0.00	0.00	0.98	0.00	0.00
Avail Cap(c_a), veh/h	344	2027	1073	96	2027	1084	508	0	0	363	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	17.7	20.0	20.2	59.7	13.7	13.7	42.0	0.0	0.0	53.0	0.0	0.0
Incr Delay (d2), s/veh	0.4	2.5	4.8	59.0	0.4	0.8	2.3	0.0	0.0	41.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.9	27.5	30.2	8.2	9.7	10.5	15.9	0.0	0.0	24.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.1	22.5	25.1	118.7	14.1	14.5	44.4	0.0	0.0	94.4	0.0	0.0
LnGrp LOS	B	C	C	F	B	B	D	A	A	F	A	A
Approach Vol, veh/h		2333			1070			316			355	
Approach Delay, s/veh		23.3			22.2			44.4			94.4	
Approach LOS		C			C			D			F	

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	90.0	50.0	90.0	50.0
Change Period (Y+Rc), s	5.7	* 7	5.7	* 7
Max Green Setting (Gmax), s	84.3	* 43	84.3	* 43
Max Q Clear Time (g_c+I1), s	47.9	45.0	86.3	26.7
Green Ext Time (p_c), s	35.5	0.0	0.0	4.4

Intersection Summary	
HCM 6th Ctrl Delay	30.9
HCM 6th LOS	C

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

Intersection	
Int Delay, s/veh	5.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	13	27	14	185	68
Future Vol, veh/h	8	13	27	14	185	68
Conflicting Peds, #/hr	1	0	0	3	3	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	71	71	87	87
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	9	15	38	20	213	78

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	556	51	0	0	61	0
Stage 1	51	-	-	-	-	-
Stage 2	505	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	496	1023	-	-	1555	-
Stage 1	977	-	-	-	-	-
Stage 2	610	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	423	1020	-	-	1551	-
Mov Cap-2 Maneuver	423	-	-	-	-	-
Stage 1	833	-	-	-	-	-
Stage 2	609	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	5.6
HCM LOS	B		

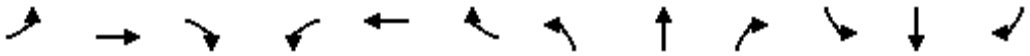
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	663	1551	-
HCM Lane V/C Ratio	-	-	0.036	0.137	-
HCM Control Delay (s)	-	-	10.6	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.5	-

Intersection	
Intersection Delay, s/veh	73.6
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	84	39	379	84	36	30	46	38	58	121	5
Future Vol, veh/h	1	84	39	379	84	36	30	46	38	58	121	5
Peak Hour Factor	0.77	0.77	0.77	0.65	0.65	0.65	0.78	0.78	0.78	0.89	0.89	0.89
Heavy Vehicles, %	0	0	0	0	0	0	5	5	5	2	2	2
Mvmt Flow	1	109	51	583	129	55	38	59	49	65	136	6
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	11.6	114.1	12.7	14.3
HCM LOS	B	F	B	B

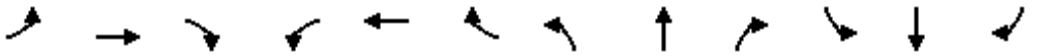
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	26%	1%	76%	32%
Vol Thru, %	40%	68%	17%	66%
Vol Right, %	33%	31%	7%	3%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	114	124	499	184
LT Vol	30	1	379	58
Through Vol	46	84	84	121
RT Vol	38	39	36	5
Lane Flow Rate	146	161	768	207
Geometry Grp	1	1	1	1
Degree of Util (X)	0.269	0.269	1.173	0.379
Departure Headway (Hd)	7.113	6.331	5.502	7.066
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	509	572	660	513
Service Time	5.113	4.331	3.536	5.066
HCM Lane V/C Ratio	0.287	0.281	1.164	0.404
HCM Control Delay	12.7	11.6	114.1	14.3
HCM Lane LOS	B	B	F	B
HCM 95th-tile Q	1.1	1.1	25.3	1.8



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	84	39	379	84	36	30	46	38	58	121	5
Future Volume (veh/h)	1	84	39	379	84	36	30	46	38	58	121	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.99	0.98		0.96	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1778	1778	1778	1821	1821	1821
Adj Flow Rate, veh/h	1	109	51	583	129	55	38	59	49	65	136	6
Peak Hour Factor	0.77	0.77	0.77	0.65	0.65	0.65	0.78	0.78	0.78	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	5	5	5	2	2	2
Cap, veh/h	53	771	358	759	148	63	115	144	98	141	221	9
Arrive On Green	0.65	0.65	0.65	0.65	0.65	0.65	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1	1192	553	1033	228	97	275	793	540	405	1220	49
Grp Volume(v), veh/h	161	0	0	767	0	0	146	0	0	207	0	0
Grp Sat Flow(s),veh/h/ln	1746	0	0	1358	0	0	1608	0	0	1674	0	0
Q Serve(g_s), s	0.0	0.0	0.0	28.9	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0
Cycle Q Clear(g_c), s	2.5	0.0	0.0	31.4	0.0	0.0	5.5	0.0	0.0	7.8	0.0	0.0
Prop In Lane	0.01		0.32	0.76		0.07	0.26		0.34	0.31		0.03
Lane Grp Cap(c), veh/h	1181	0	0	969	0	0	357	0	0	371	0	0
V/C Ratio(X)	0.14	0.00	0.00	0.79	0.00	0.00	0.41	0.00	0.00	0.56	0.00	0.00
Avail Cap(c_a), veh/h	1325	0	0	1080	0	0	448	0	0	469	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	4.8	0.0	0.0	9.6	0.0	0.0	25.7	0.0	0.0	26.5	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.0	0.0	3.7	0.0	0.0	0.8	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.8	0.0	0.0	16.2	0.0	0.0	4.4	0.0	0.0	6.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	4.9	0.0	0.0	13.3	0.0	0.0	26.4	0.0	0.0	27.8	0.0	0.0
LnGrp LOS	A	A	A	B	A	A	C	A	A	C	A	A
Approach Vol, veh/h		161			767			146			207	
Approach Delay, s/veh		4.9			13.3			26.4			27.8	
Approach LOS		A			B			C			C	

Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		18.7		51.2		18.7		51.2				
Change Period (Y+Rc), s		6.0		6.0		6.0		6.0				
Max Green Setting (Gmax), s		17.0		51.0		17.0		51.0				
Max Q Clear Time (g_c+I1), s		7.5		4.5		9.8		33.4				
Green Ext Time (p_c), s		1.2		3.0		1.4		11.8				

Intersection Summary												
HCM 6th Ctrl Delay			16.1									
HCM 6th LOS			B									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	1274	86	190	766	55	153	214	268	237	401	43
Future Volume (veh/h)	66	1274	86	190	766	55	153	214	268	237	401	43
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.90	1.00		0.85	0.93		0.80	0.95		0.82
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1850	1850	1850	1850	1850	1850	1836	1836	1836	1836	1836	1836
Adj Flow Rate, veh/h	78	1499	101	209	842	60	191	268	335	266	451	48
Peak Hour Factor	0.85	0.85	0.85	0.91	0.91	0.91	0.80	0.80	0.80	0.89	0.89	0.89
Percent Heavy Veh, %	0	0	0	0	0	0	1	1	1	1	1	1
Cap, veh/h	322	1966	549	248	2037	144	324	405	276	338	764	80
Arrive On Green	0.05	0.39	0.39	0.09	0.43	0.43	0.10	0.22	0.22	0.13	0.25	0.25
Sat Flow, veh/h	1762	5051	1409	1762	4749	336	1748	1836	1249	1748	3110	328
Grp Volume(v), veh/h	78	1499	101	209	595	307	191	268	335	266	251	248
Grp Sat Flow(s),veh/h/ln	1762	1684	1409	1762	1684	1718	1748	1836	1249	1748	1744	1693
Q Serve(g_s), s	3.7	36.1	6.6	9.7	17.2	17.4	11.7	18.7	30.9	16.4	17.7	18.1
Cycle Q Clear(g_c), s	3.7	36.1	6.6	9.7	17.2	17.4	11.7	18.7	30.9	16.4	17.7	18.1
Prop In Lane	1.00		1.00	1.00		0.20	1.00		1.00	1.00		0.19
Lane Grp Cap(c), veh/h	322	1966	549	248	1444	737	324	405	276	338	428	416
V/C Ratio(X)	0.24	0.76	0.18	0.84	0.41	0.42	0.59	0.66	1.22	0.79	0.59	0.60
Avail Cap(c_a), veh/h	327	1966	549	314	1444	737	375	405	276	338	428	416
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	23.8	37.1	28.1	30.3	27.7	27.8	37.2	49.8	54.6	37.2	46.5	46.7
Incr Delay (d2), s/veh	0.4	2.9	0.7	15.4	0.9	1.7	1.8	4.0	125.3	11.6	2.1	2.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	3.1	23.3	4.6	9.4	12.4	12.9	9.4	14.7	30.1	13.5	13.3	13.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	24.2	40.0	28.9	45.7	28.6	29.5	39.1	53.7	179.9	48.9	48.6	49.0
LnGrp LOS	C	D	C	D	C	C	D	D	F	D	D	D
Approach Vol, veh/h		1678			1111			794			765	
Approach Delay, s/veh		38.6			32.1			103.4			48.8	
Approach LOS		D			C			F			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	18.7	60.3	20.5	40.5	13.2	65.8	24.0	37.0
Change Period (Y+Rc), s	6.5	5.8	6.5	* 6.1	6.5	5.8	6.5	* 6.1
Max Green Setting (Gmax), s	17.5	49.2	18.1	* 30	7.1	59.6	17.5	* 31
Max Q Clear Time (g_c+I1), s	11.7	38.1	13.7	20.1	5.7	19.4	18.4	32.9
Green Ext Time (p_c), s	0.5	10.3	0.4	4.7	0.0	20.3	0.0	0.0

Intersection Summary	
HCM 6th Ctrl Delay	50.6
HCM 6th LOS	D

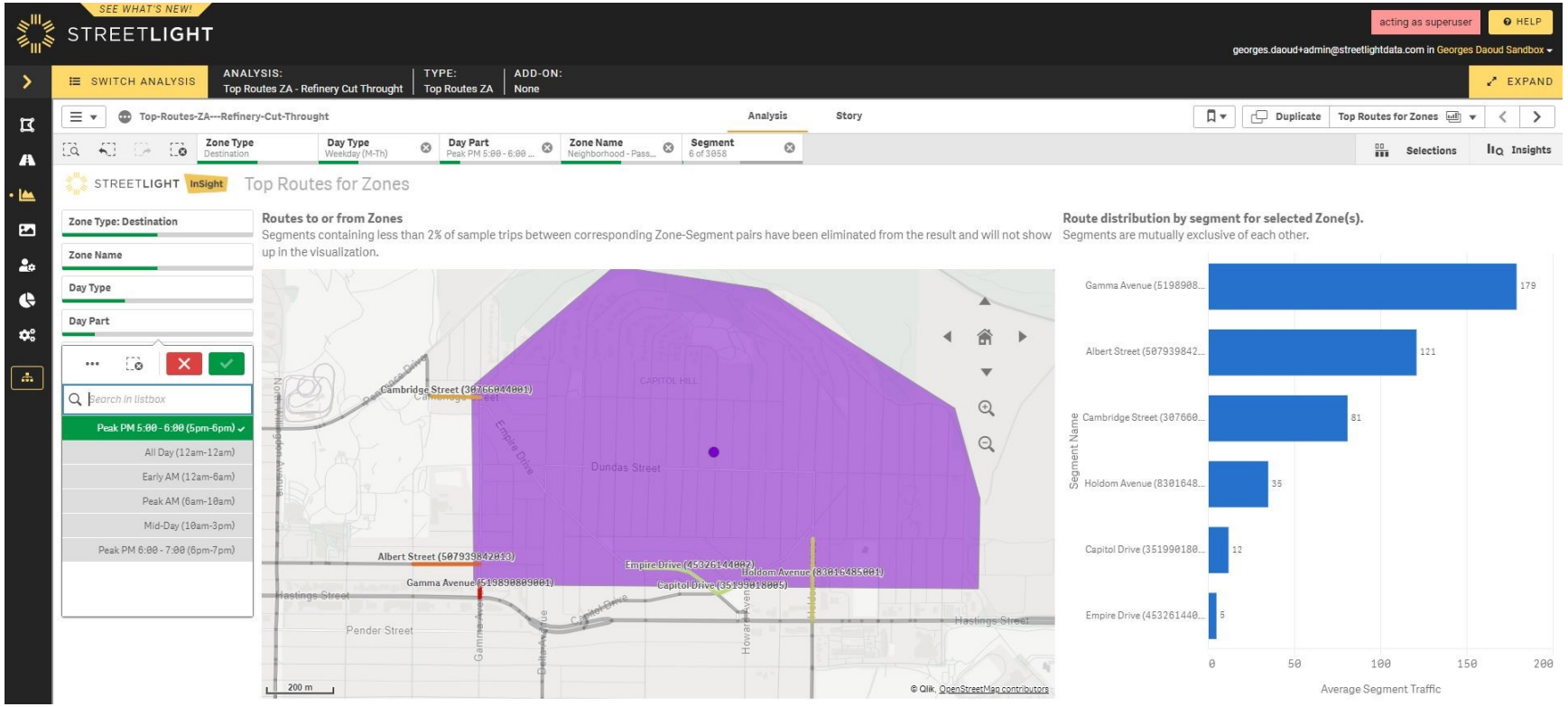
Notes

User approved pedestrian interval to be less than phase max green.

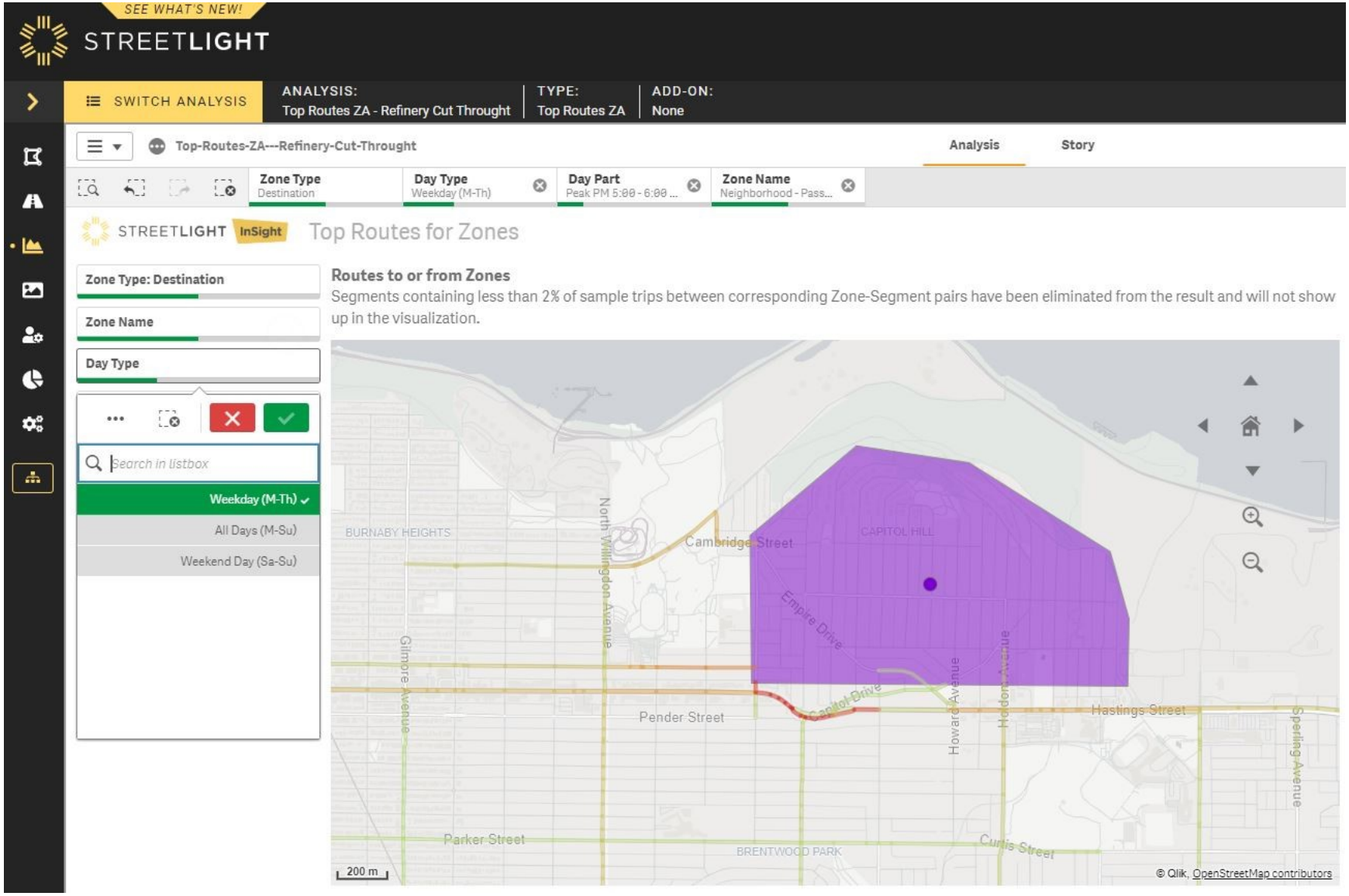
* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

APPENDIX C – TOP ROUTE SCREENSHOTS

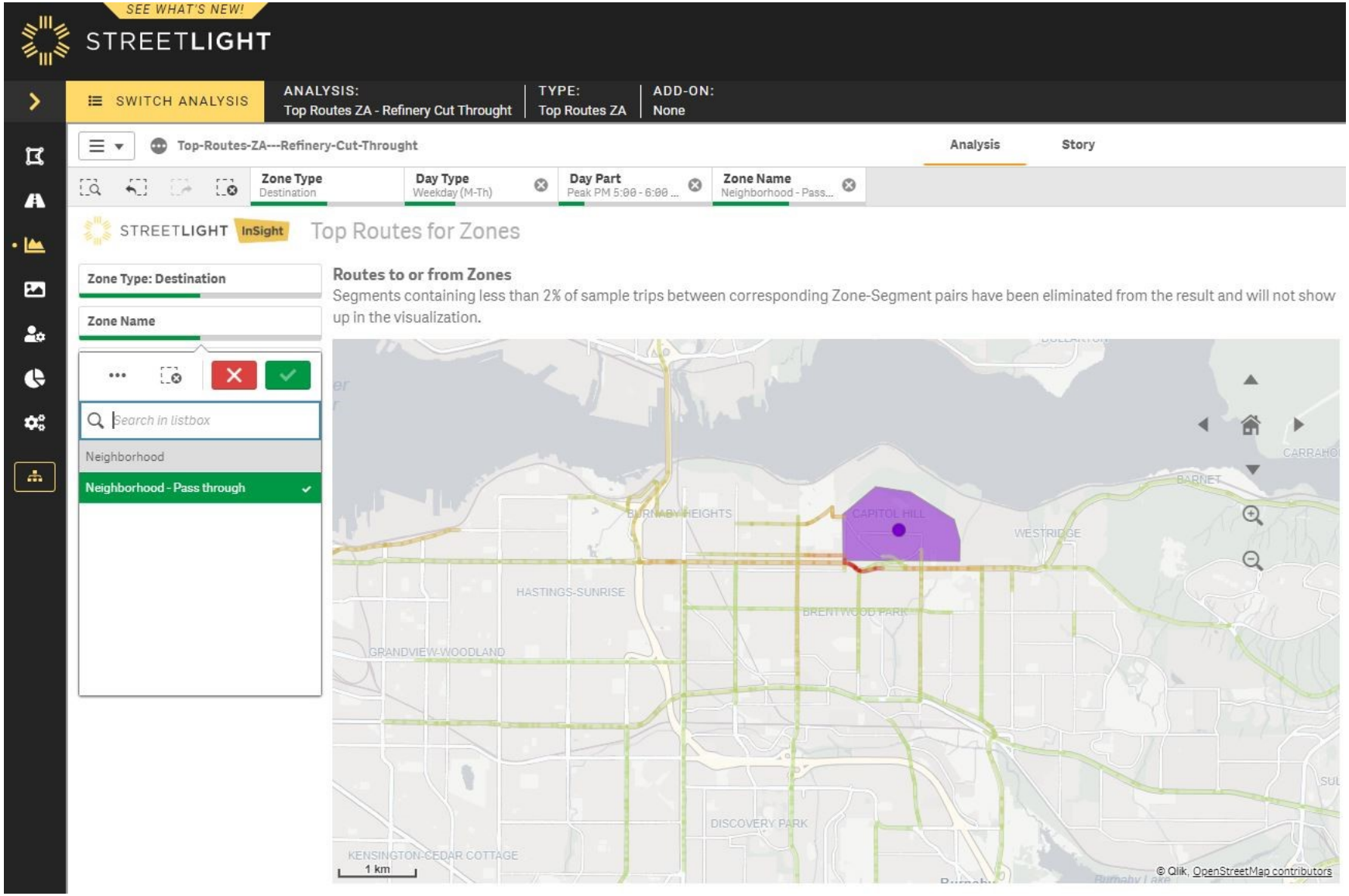
Top Routes Passing Through Capitol Hill – Zoom 1



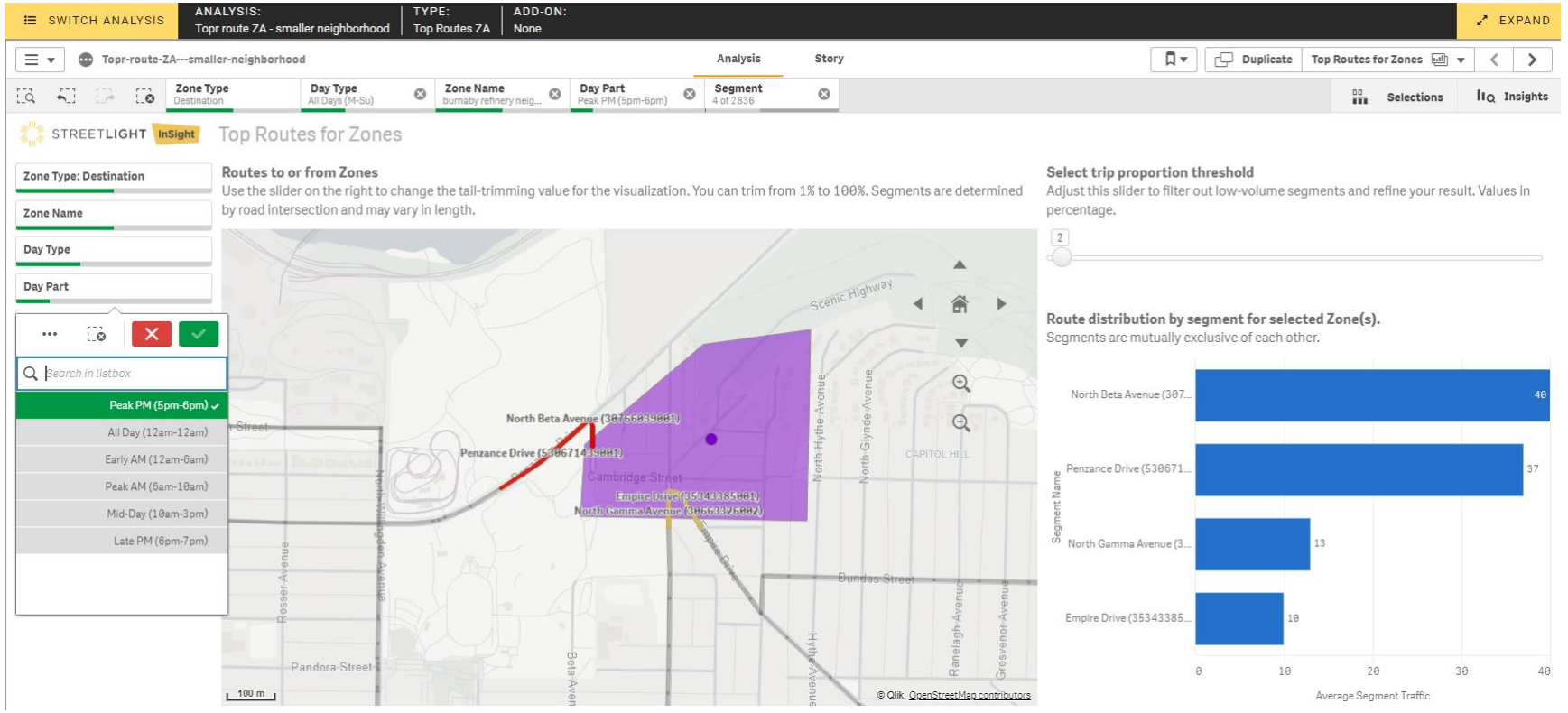
Top Routes Passing Through Capitol Hill – Zoom 2



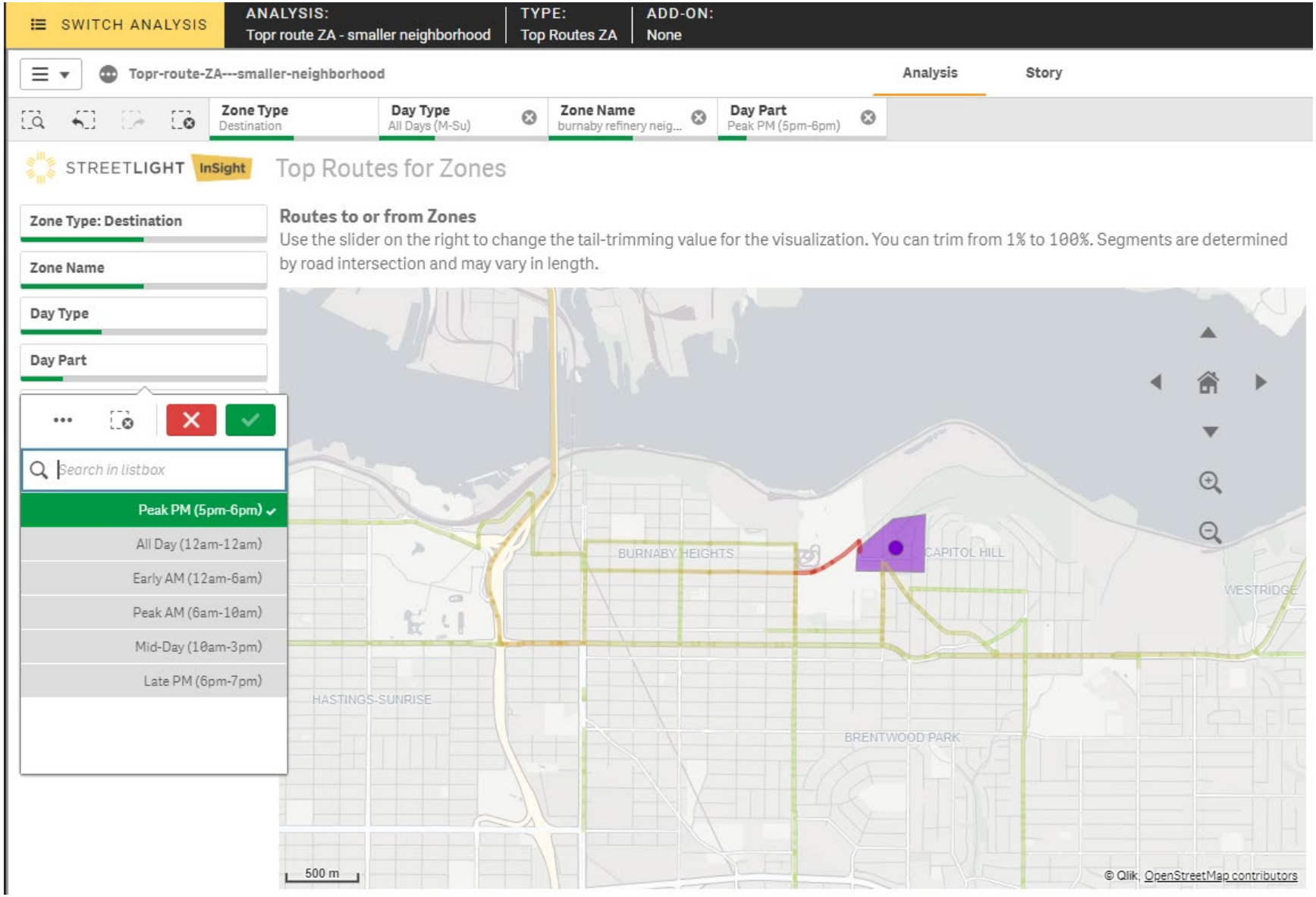
Top Routes Passing Through Capitol Hill – Zoom 3



Top Routes Passing Through Capitol Hill, Concentrated Area – Zoom 1



Top Routes Passing Through Capitol Hill, Concentrated Area – Zoom 2



Contact
Denny Leung, PEng
604-424-4860
dleung@mcelhanney.com

McElhanney

CANADA BEST MANAGED COMPANIES