

920936 Ontario Inc.

0 Fieldstone Drive Subdivision Plan

**Traffic Impact Study
Zoning By-law Amendment**

Monday, October 30, 2023

B001662

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Zoning By-law Amendment**

Project no B001662

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1 Introduction

CIMA+ was retained by the proponent of the rezoning of a portion of an (draft) approved subdivision located at 0 Fieldstone Drive, Sudbury, Ontario. The aim is to rezone the lands from the existing low density residential land R1-5 to high density residential R4 to permit the development of mid-rise buildings. The proposed residential development includes three nine-storey multiple dwellings with each building containing a maximum of 108 residential dwellings units for a total of 324 dwelling units as shown in **Figure 1**.

Following the requirements of the City, an alternative scenario was considered as part of the Traffic Impact Study (TIS) where the traffic generated by 70 residential units (single detached) will replace the traffic generated by the three proposed buildings.

The study objective is to determine the traffic volumes anticipated to be generated by the proposed development during the AM and PM peak hours, and to assess the impact of this traffic on existing roadway network and recommend changes to accommodate the projected traffic if needed.

The content of this TIS follows the approach and methodology presented in the Terms of Reference (TOR) submitted to the City of Greater Sudbury (the City) for review on June 8th, 2023, and approval by the city on July 7th, 2023. **Appendix A** contains the TOR documentation.

For the context of this study, the roundabout of Sunrise Ride and North Field Crescent/Kingsview will serve as the site access with all site traffic for the three proposed buildings passing through to enter the road network. As per the TOR, the roundabout was not part of the operational analysis.



1.1 Study Area

Figure 2 illustrates the subject site along with the surroundings lands, which together, represents the study area. The study area is bounded by arterial roads Kingsway/Lloyd Street and Notre Dame Street. Both these arterial roads lead to the downtown core to the southwest of the development. The proximity of the development site to the Downtown Sudbury Area is approximately one kilometre.

The land use nearby the development site consists of a mixture of low, medium, and high-density residential units consisting of single detached homes, townhouses, and apartment buildings. Along Mont Adam Street there are apartments and co-op homes, while Notre Dame Avenue has commercial avenues, residential homes, and a secondary school.



Figure 2: Study Area and Study Intersections

The following intersections were analyzed as part of the road network effected by the development:

- Mont Adam Street at Sunrise Ridge (stop control minor road)
- Mont Adam Street at Montebello Street/Cochrane Street (stop control minor road)
- Mont Adam Street at Mountain Street (all-way stop)
- Mont Adam Street at Lloyd Street (stop control minor road/ RIRO)
- Cochrane Street at Kingsway (Signalized)
- Leslie Street at Notre Dame Avenue (Signalized)

The traffic counts were conducted by Ontario Traffic Inc. (OTI) on Wednesday August 30, 2023, for the following intersections:

- Mont Adam Street at Sunrise Ridge.
- Mont Adam Street at Montebello Street/Cochrane Street.
- Mont Adam Street at Mountain Street, and
- Mont Adam Street at Lloyd Street.

The traffic counts provided by the City, for Cochrane Street at Kingsway, and Leslie Street at Notre Dame Avenue, were conducted in 2022 and grown to 2023 with a compounded growth rate of 1.5% per annum. Signal timing plans were provided by the City.

A copy of the existing traffic counts and signal timing plans are provided in **Appendix B**.

1.2 Study Methodology

This study evaluates existing and future traffic operations at study area intersections for the weekday AM peak period (7:00-9:00), and weekday PM peak period (16:00-18:00), as this time periods was confirmed by the City.

The study assessed traffic operations under existing (2023) conditions and the following future horizon years:

- Future (2028) Background Conditions (5-year horizon¹); and,
- Future (2028) Total Conditions (5-year horizon).

Intersection operations were assessed using the Synchro 11 software which utilizes the Highway Capacity Manual (HCM) 2000 methodology published by the Transportation Research Board National Research Council. Synchro 11 can analyze both signalized and unsignalized intersections in a road corridor or network considering the spacing,

¹ Future horizon of 5 years from the date of the TIS.

interaction, queues, and operations between intersections. Intersection operations performance metrics are reported in terms of Level of Service (LOS), volume to capacity (v/c) ratios.

Level of Service is based on the average control delay per vehicle for a given movement. Delay is an indicator of how long a vehicle must wait to complete a movement and is represented by a letter between 'A' and 'F', with 'F' being the longest delay.

Table 1 summarizes the LOS criteria for signalized and unsignalized intersections.

Table 1: Intersection Level of Service Criteria

Level of Service	Average Control Delay per Vehicle (second/vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

SimTraffic software was used to calculate the 95th percentile queue length to analyze and assess the available storage capacity and whether queue spillback or lane blockages occur due to long queues. The available storage capacity was based on the best available data collected from aerial imagery.

The city is currently updating its Traffic Impact Study Guidelines. Therefore, for this study, critical intersections are established based on the following criteria:

- Level of Service of E or worse;
- Volume to Capacity ratio of 1.00; and
- 95th queue exceeds the available storage length.

It should be noted that the peak hour factor (PHF) was calculated from the provided TMCs. The calculated PHF was used for all existing and future scenarios.

This report presents the analysis of the following two scenarios:

- **Scenario 1** which includes 70 Single Family Detached Housing; and
- **Scenario 2** which includes 324 Residential units in Multifamily Housing (Three Midrise Buildings).

Scenario 1 considers the effects of the 70 single detached residential units as part of the original zoning plan, which includes Phases 1 and 2. Whereas **Scenario 2** considers the effects of the three new midrise buildings (replaces the 70 total single detached residential units). Therefore, for Scenario 2, only the traffic generated by the three new midrise buildings is considered development driven.

The purpose of analyzing the following two scenarios is to showcase the differences between single detached residential houses and mid-rise buildings.

2 Existing Traffic Operations

The following section outlines existing conditions. Existing intersection operations were analyzed using the lane configurations illustrated in **Figure 3**.

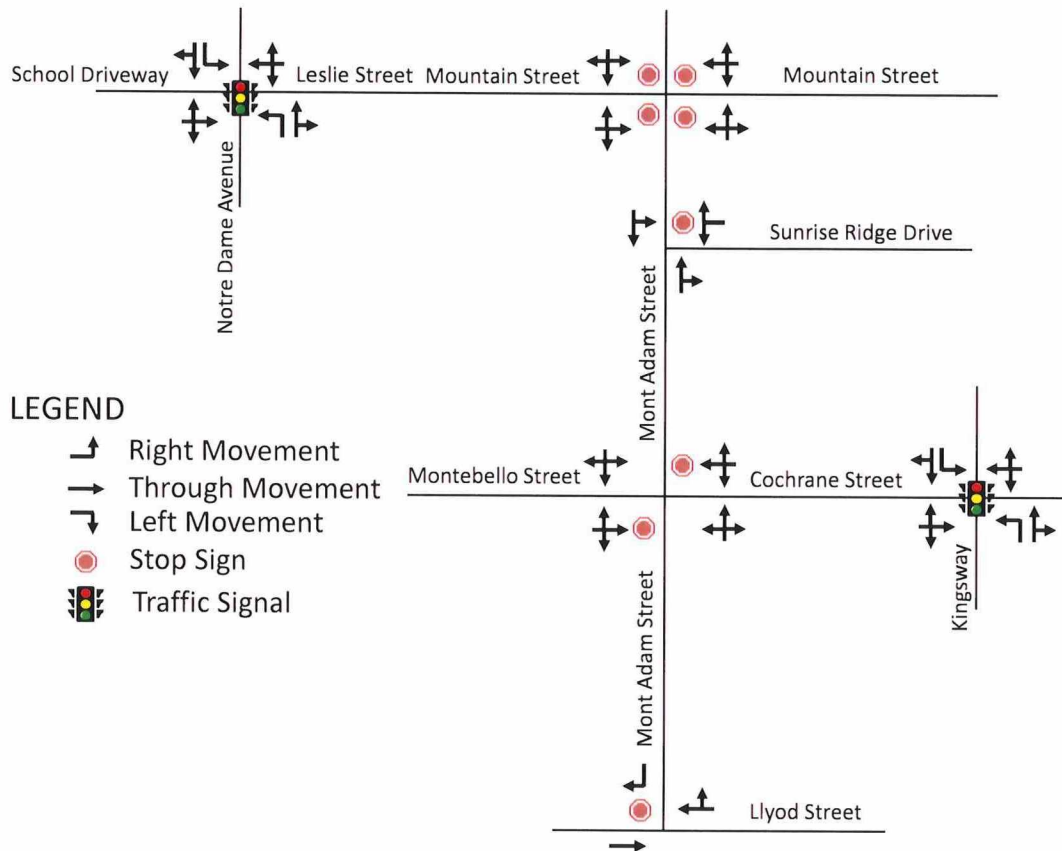


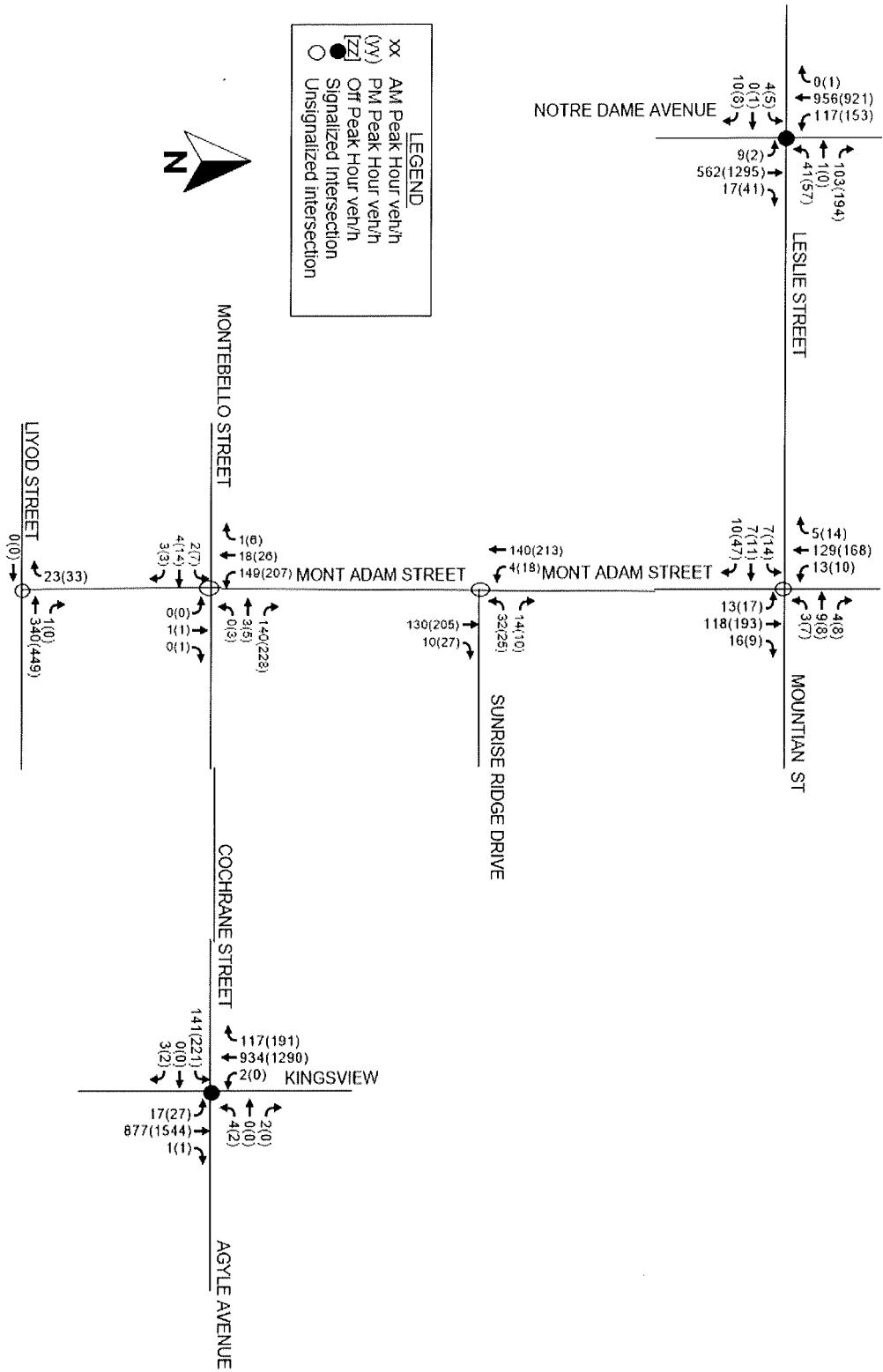
Figure 3: Existing Lane Configuration

2.1 Existing Traffic Volumes and Operations

As previously mentioned in Section 1.1, CIMA+ received the collection of turning movement counts (TMC) for the study area network from a combination of OTI and the City.

The counts reveal that the AM peak hours vary between 07:30 to 08:30 AM, 07:45 to 08:45 AM, 08:00 to 09:00 AM. While the PM peak hours vary between 16:30 to 17:30, 16:00 to 17:00, and 16:15 to 17:15 PM. The TMCs provided by the City for Cochrane Street at Kingsway, and Leslie Street at Notre Dame Avenue, were conducted in 2022 and grown to 2023 with a growth rate of 1.5%. The resulting existing traffic volumes are shown in **Figure 4**.

Figure 4: Existing 2023 Volume



Traffic operations were reviewed using Synchro 11 and SimTraffic software. Volume to capacity ratio (v/c), level of service (LOS) and delay, and 95th percentile queues were reviewed. The results are summarized in **Table 2**. Synchro outputs are available in **Appendix C**.

It should be noted that the available storage capacity is based on aerial imagery to measure storage lane length or distance from the subject intersection to the nearest upstream traffic-controlled intersection.

Table 2: Existing 2023 Traffic Operations

Direction / Movement		Storage (m)	v/c	Delay	LOS	95 th Queue (m)
Mont Adam Street and Sunrise Ridge Drive (Unsignalized)						
WB	LR	>100	0.08 (0.09)	11 (12)	B (B)	14 (14)
NB	TR	>100	0.10 (0.16)	0 (0)	A (A)	<7 (<7)
SB	LT	>100	0.00 (0.02)	0 (1)	A (A)	<7 (<7)
Mont Adam Street at Montebello Street/ Cochrane Street (Unsignalized)						
EB	LTR	75	0.04 (0.14)	12 (19)	B (C)	14 (14)
WB	LTR	>100	0.16 (0.30)	10 (11)	A (B)	18 (19)
NB	LTR	85	0.00 (0.00)	0 (0)	A (A)	<7 (<7)
SB	LTR	>100	0.11 (0.17)	7 (6)	A (A)	<7 (<7)
Mountain Street and Mont Adam Street (Unsignalized)						
EB	LTR	60	0.05 (0.14)	8 (9)	A (A)	13 (15)
WB	LTR	>100	0.04 (0.06)	8 (8)	A (A)	11 (12)
NB	LTR	>100	0.21 (0.32)	8 (10)	A (A)	17 (19)
SB	LTR	>100	0.22 (0.28)	9 (9)	A (A)	19 (20)
Overall		-	-	8 (9)	A (A)	-
Lloyd Street at Mont Adam Street (Unsignalized)						
EB	T	>100	0.00 (0.00)	0 (0)	-	<7 (<7)
WB	TR	25	0.23 (0.29)	0 (0)	-	<7 (56)
SB	LR	85	0.06 (0.09)	12 (12)	A (B)	<7 (<7)

Kingsway at Cochrane Street/Argyle Avenue (Signalized)						
EB	LTR	135	0.47 (0.75)	24 (36)	C (D)	30 (57)
WB	LTR	70	0.01 (0.01)	19 (21)	B (C)	<7 (<7)
NB	L	45	0.10 (0.34)	7 (11)	A (B)	24 (37)
	TR	135	0.60 (0.80)	10 (14)	B (B)	48 (79)
SB	L	20	0.02 (0.00)	6 (0)	A (A)	10 (<7)
	TR	135	0.54 (0.76)	7 (13)	A (B)	93 (322)
Overall		-	0.59 (0.84)	10 (15)	A (B)	-
Notre Dame Avenue at Leslie Street/Driveway (Signalized)						
EB	LTR	75	0.02 (0.05)	25 (23)	C (C)	12 (9)
WB	LTR	80	0.33 (0.54)	27 (28)	C (C)	30 (36)
NB	L	105	0.11(0.02)	9 (9)	A (A)	<7 (<7)
	T	>100	0.26 (0.59)	9 (14)	A (B)	45 (85)
SB	L	35	0.28 (0.64)	4 (13)	A (B)	18 (45)
	T	>100	0.31 (0.30)	5 (6)	A (A)	46 (52)
Overall		-	0.34 (0.65)	8 (13)	A (B)	-

Legend: AM (PM)

All movements are operating at an acceptable level of service. All 95th percentile queues can be accommodated within existing storage capacity².

Additionally, the Kingsway at Cochrane Street/Argyle Avenue intersection experiences southbound queues that extend past the upstream, stop-controlled Kitchener Avenue intersection during the PM peak hour.

2.2 Active Transportation

2.2.1 Pedestrian and Cyclist Infrastructure

Sidewalks are provided on one side alongside most streets in the study area. Existing sidewalks are illustrated in **Figure 5**. There are no dedicated bike lanes within the study area road network and cyclists need to share the road with vehicular traffic.

² Except for the southbound left-turn queue at Notre Dame Avenue at Leslie Street/Driveway intersection, which extends approximately two car lengths beyond the available storage.



Figure 5: Existing Sidewalks

2.2.2 Transit Services

The subject site is well served by public transit provided by GOVA Transit. The bus route within the study area is Route 27 which operates on weekdays and weekends with service headway of sixty (60) minutes. There are three bus stops along Mont Adam Street on the south side and one bus stop located on Cochrane Street. The closest stop is 100m north of Mont Adam Street and Sunrise Ridge Drive, which is approximately 700 metres from the subject site. Route 2 and Route 12 have stops on Lloyd Street and Mont Adam Street, which is approximately 1100 meters from the subject site.

2.3 Collision Report

A collision analysis was conducted to identify any potential safety issues within the study area. The most recent five years' worth of historical collision data was provided by

the City. The provided collision data is dated between 2018 and 2023. The collision analysis data is provided in **Appendix D**.

During the 5-year analysis period, there were a total of 120 collisions within the study area. There were 19 collisions that caused property damage only (PDO), eight collisions that caused non-fatal injuries and ninety-four non-reportable collisions. The collisions were contrasted against the 2019 Ontario Road Safety Annual Report (ORSAR) results, which was used as a baseline for comparison.

The collision data was further examined for patterns that might point to underlying safety issues. The following collision characteristics were reviewed to find possible collision patterns:

- Severity;
- Prevailing Driver Action;
- Prevailing Impact Type;
- Lighting; and
- Road Surface Conditions.

Table 3 summarizes the collision by prevailing driver action, impact type, and environmental conditions.

Table 3: Collision Type and Prevailing Conditions

Prevailing Driver Action	Prevailing Impact Type	Lighting		Surface Condition		
		Daylight	Non-Daylight	Clear	Rain	Snow
28 % Driving Properly	39% Rear End	88	32	100	4	16

Out of the 120 collisions, thirty-three drivers were driving properly, sixteen lost controls, twenty-seven were following too close, six failed to yield right of way, five improper lane changes, six were too fast for conditions, three exceeded the speed limit, five disobeyed traffic controls were driving properly, one driver did an improper turn, and nine was noted as being at fault for other unspecified reasons. The prevailing impact type was rear end collisions.

Location

Majority of intersection occur at Cochrane at Kingsway (31/120), Kingsway between Cochrane Street and Fabbro Street (30/120), and at Leslie Street at Notre Dame Avenue (27/120). This makes sense as these are classified as arterial roads, and the remaining are local roads.

Light Condition

32 out of 120 collisions (27%) occurred during non-daylight conditions. This statistic is right around the 27.9% (dusk, dawn, and darkness) reported in the 2019 Ontario Road Safety Annual Report (ORSAR). The illumination seems not to have contributed to collisions. Majority of the non-daylight accidents ($14/32=44\%$) occurred on Kingsway between Cochrane Street and Fabbro Street.

Road Surface Condition

100 out of 120 (84% of collisions) occurred on clear road conditions. There are three wet surface collisions ($3/120=2.5\%$), this is lower than the 2019 ORSAR wet conditions are reported in 15.6% scenarios. The proportion of loose snow surface collisions ($1/120$) is lower than the 5.2% reported in the 2019 ORSAR. The proportion of packed snow surface collisions ($15/120=12.5\%$) is higher than the 3.3% reported in the 2019 ORSAR.

Prevailing Impact

The prevailing impact type was rear end collisions ($46/120$). 46% ($21/46$) of rear end collisions happen at Cochrane at Kingsway. The prevalent driver condition being them following too closely ($27/46=59\%$). Most rear end collisions occurred during Clear ($42/46=91\%$) conditions. The light condition during these collisions where most frequently daylight conditions ($39/46=85\%$).

3 Future Background Conditions

Future traffic volumes were estimated using a compound annual growth rate of 1.5% for the five-year horizon year (2028). Background developments were accounted with the growth rate provided by the City.

3.1 Future Traffic Growth

Future background traffic consists of two components: traffic growth outside the study area and other development site traffic within the study area. There were no background developments considered in this study. A compound growth rate of 1.5% per annum was used in the analysis to estimate future traffic volumes.

3.2 2028 Traffic Volume and Operations

The future 2028 traffic volumes are shown in **Figure 6**.

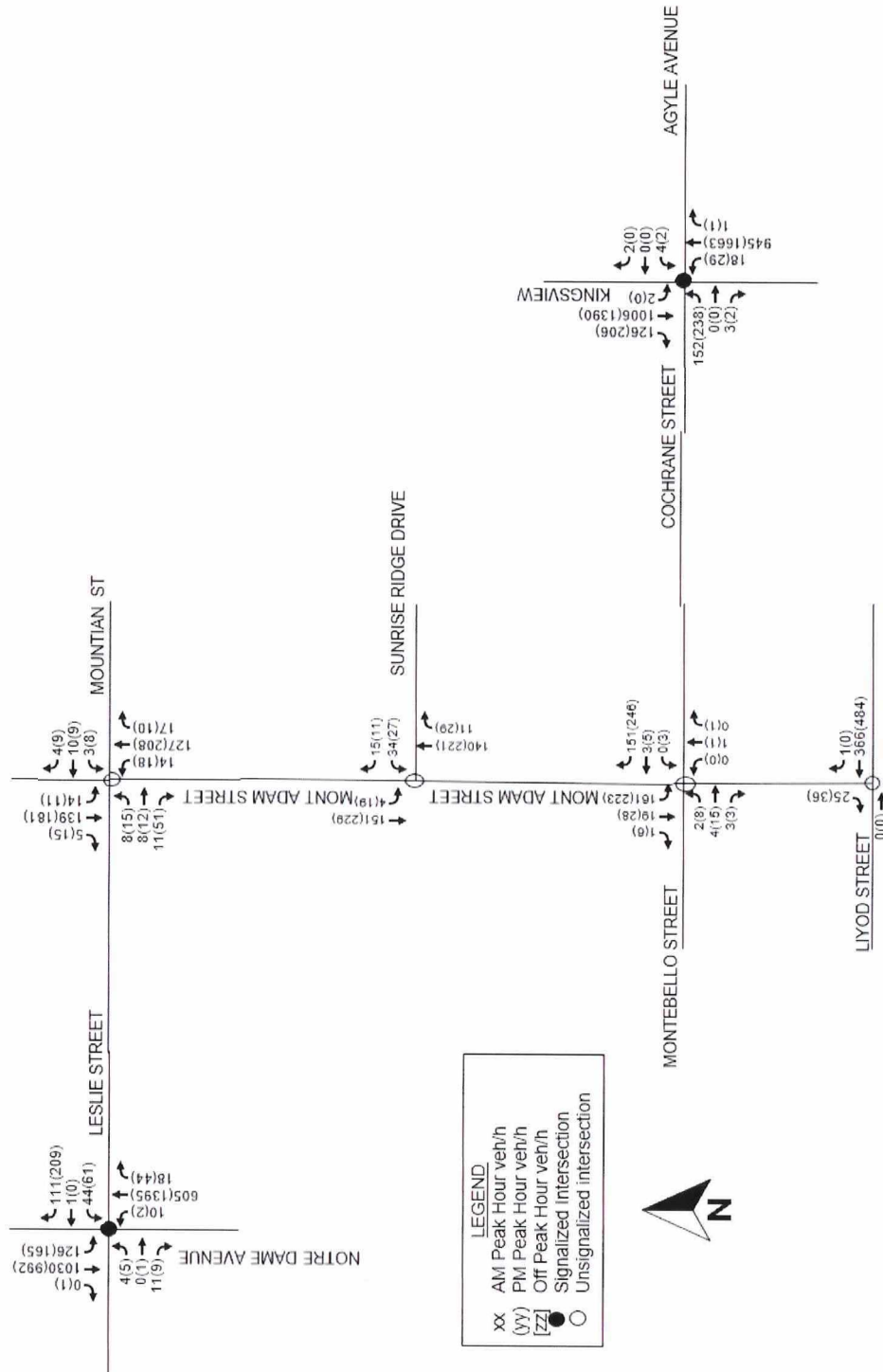


Figure 6: Future Background 2028 Volume

Traffic operations were reviewed using Synchro 11 and SimTraffic software. Volume to capacity ratio (v/c), level of service (LOS) and delay, and 95th percentile queues were reviewed. The results are summarized in **Table 4**. Synchro and SimTraffic outputs are available in **Appendix E**.

Table 4: Future Background 2028 Traffic Operations

Direction / Movement		Storage (m)	v/c	Delay (s)	LOS	95 th Queue (m)
Mont Adam Street and Sunrise Ridge Drive (Unsignalized)						
WB	LR	>100	0.09 (0.10)	11 (13)	B (B)	15 (13)
NB	TR	>100	0.11 (0.18)	0 (0)	A (A)	<7 (<7)
SB	LT	>100	0.00 (0.02)	0 (1)	A (A)	<7 (<7)
Mont Adam Street at Montebello Street/ Cochrane Street (Unsignalized)						
EB	LTR	75	0.04 (0.18)	12 (21)	B (C)	<7 (13)
WB	LTR	>100	0.18 (0.32)	9 (11)	A (B)	19 (20)
NB	LTR	85	0.00 (0.00)	0 (0)	A (A)	<7 (<7)
SB	LTR	>100	0.12 (0.18)	7 (7)	A (A)	<7 (<7)
Mountain Street and Mont Adam Street (Unsignalized)						
EB	LTR	60	0.05 (0.15)	8 (9)	A (A)	14 (13)
WB	LTR	>100	0.05 (0.06)	8 (9)	A (A)	14 (11)
NB	LTR	>100	0.22 (0.35)	9 (10)	A (A)	18 (21)
SB	LTR	>100	0.24 (0.31)	9 (10)	A (A)	20 (23)
Overall		-	-	9 (10)	A (A)	-
Lloyd Street at Mont Adam Street (Unsignalized)						
EB	T	>100	0.00 (0.00)	0 (0)	-	<7 (<7)
WB	TR	25	0.25 (0.31)	0 (0)	-	<7 (<7)
SB	LR	85	0.06 (0.10)	12 (12)	A (B)	<7 (<7)
Kingsway at Cochrane Street/Argyle Avenue (Signalized)						
EB	LTR	135	0.53 (0.77)	26 (37)	C (D)	42 (57)

WB	LTR	70	0.01 (0.01)	20 (21)	C (C)	<7 (<7)
NB	L	45	0.12 (0.38)	8 (13)	A (B)	20 (50)
	TR	135	0.65 (0.88)	11 (18)	B (B)	60 (81)
SB	L	20	0.02 (0.00)	6 (0)	A (A)	15 (<7)
	TR	135	0.58 (0.84)	8 (16)	A (B)	127 (318)
Overall		-	0.64 (0.91)	11 (19)	B (B)	-
Notre Dame Avenue at Leslie Street/Driveway (Signalized)						
EB	LTR	75	0.02 (0.05)	24 (23)	C (C)	9 (<7)
WB	LTR	80	0.35 (0.59)	27 (29)	C (C)	33 (45)
NB	L	105	0.13 (0.02)	10 (10)	A (A)	9 (<7)
	T	>100	0.29 (0.65)	10 (15)	A (B)	39 (79)
SB	L	35	0.33 (0.71)	5 (18)	A (B)	26 (38)
	T	>100	0.34 (0.33)	5 (6)	A (A)	39 (50)
Overall		-	0.37 (0.71)	9 (14)	A (B)	-

Legend: AM (PM)

All movements are expected to operate at an acceptable level of service. Assessing the 95th percentile queue indicates that there is adequate storage for all movements except for the following two intersection movements:

- Kingsway at Cochrane Street/Argyle Avenue - Northbound left is half-a-car length beyond available storage during the PM peak hour.
- Notre Dame Avenue at Leslie Street/Driveway - Southbound left is half-a-car length beyond available storage during the PM peak hour.

Additionally, the Kingsway at Cochrane Street/Argyle Avenue intersection is expected to experience southbound queues that extend past the upstream, stop-controlled Kitchener Avenue intersection during the PM peak hour.

4 Future Total Conditions

4.1 Trip Generation

The number of vehicle trips to be generated by the development and rezoning of the approved subdivision located at 0 Fieldstone Drive for the weekday AM and weekday PM peak hours has been determined based on type of use, residential units, and trip generation rates as per the ITE Trip Generation Manual 11th edition.

The following two Scenarios are analyzed in this report:

- Scenario 1 which includes 70 Single Family Detached Housing; and
- Scenario 2 which includes 324 Residential units in Multifamily Housing (Three Midrise Buildings)³.

All Trip rates are based on the respective peak hour generators fitted curved. It was assumed that all trips generated by the proposed site will consist of auto trips (i.e., a conservative approach)⁴. The projected trip generation for the proposed development during the weekday AM and weekday PM peak hours are summarized in **Table 6** and **Table 5**.

4.1.1 Scenario 1 – 70 Single Family Homes

Table 5: Trip Generation Summary for Scenario 1

ITE Land Use	Units	Parameter	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Single Family Detached Housing	70	Equation	$T=0.71(x)+7.23$			$\ln(T) = 0.93 \ln(x)+0.36$		
		Gross Trips	15	42	57	48	27	75
		Non-Auto (0%)	-	-	-	-	-	-

³ ITE Trip Generation 11th Edition Manual describes a mid-rise (LUC 221) as a building that has between four and ten floors of living space.

⁴ The Institute of Transportation Engineers (ITE), trip generation factors are based on data collected from various land use types across different locations and time periods. The data include the number of trips, the trip purpose, the trip length, the mode of travel, and other variables that affect trip making behavior. The data are then analyzed and summarized to produce average trip rates, equations, or curves that relate trip generation to the independent variable (such as floor area, number of employees, etc.) for each land use type. The trip generation factors are updated periodically to reflect changes in travel patterns and land use characteristics.

(ITE LU Code 210)								
Total Trips			15	42	57	48	27	75

As detailed in **Table 5**, the proposed development in Scenario 1 is expected to generate 57 new auto trips during the weekday AM peak hour (15 trips in / 42 trips out) and 75 new auto trips during the weekday PM peak hour (48 trips in / 27 trips out).

4.1.2 Scenario 2 – Three Midrise Buildings

Table 6: Trip Generation Summary for Scenario 2

ITE Land Use	Units	Parameter	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Multifamily Housing (Mid-Rise) (ITE LU Code 221)	324	Equation	T=0.32(x)+5.84			T=0.32(x)+15.57		
		Gross Trips	29	81	110	71	48	119
		Non-Auto (0%)	-	-	-	-	-	-
Total Trips			29	81	110	71	48	119

As detailed in **Table 6**, the proposed development in Scenario 2 is expected to generate 110 new auto trips during the weekday AM peak hour (29 trips in / 81 trips out) and 119 new auto trips during the weekday PM peak hour (71 trips in / 48 trips out).

4.2 Trip Distribution

The trip distribution for the proposed development is based on the existing travel patterns. The resulting trip distribution is summarized in **Table 7**.

Table 7: Trip Distribution Summary

From/To	Via	Inbound	Outbound
North	Notre Dame Avenue	10%	10%
South	Notre Dame Avenue	35%	35%
West	Cochrane Street	50%	50%
	Llyod Street	5%	5%
Total Trips		100%	100%

The resulting site generated trips are illustrated in **Figure 7** for Scenario 1 and **Figure 8** for Scenario 2.

4.2.1 Scenario 1 – 70 Single Family Homes

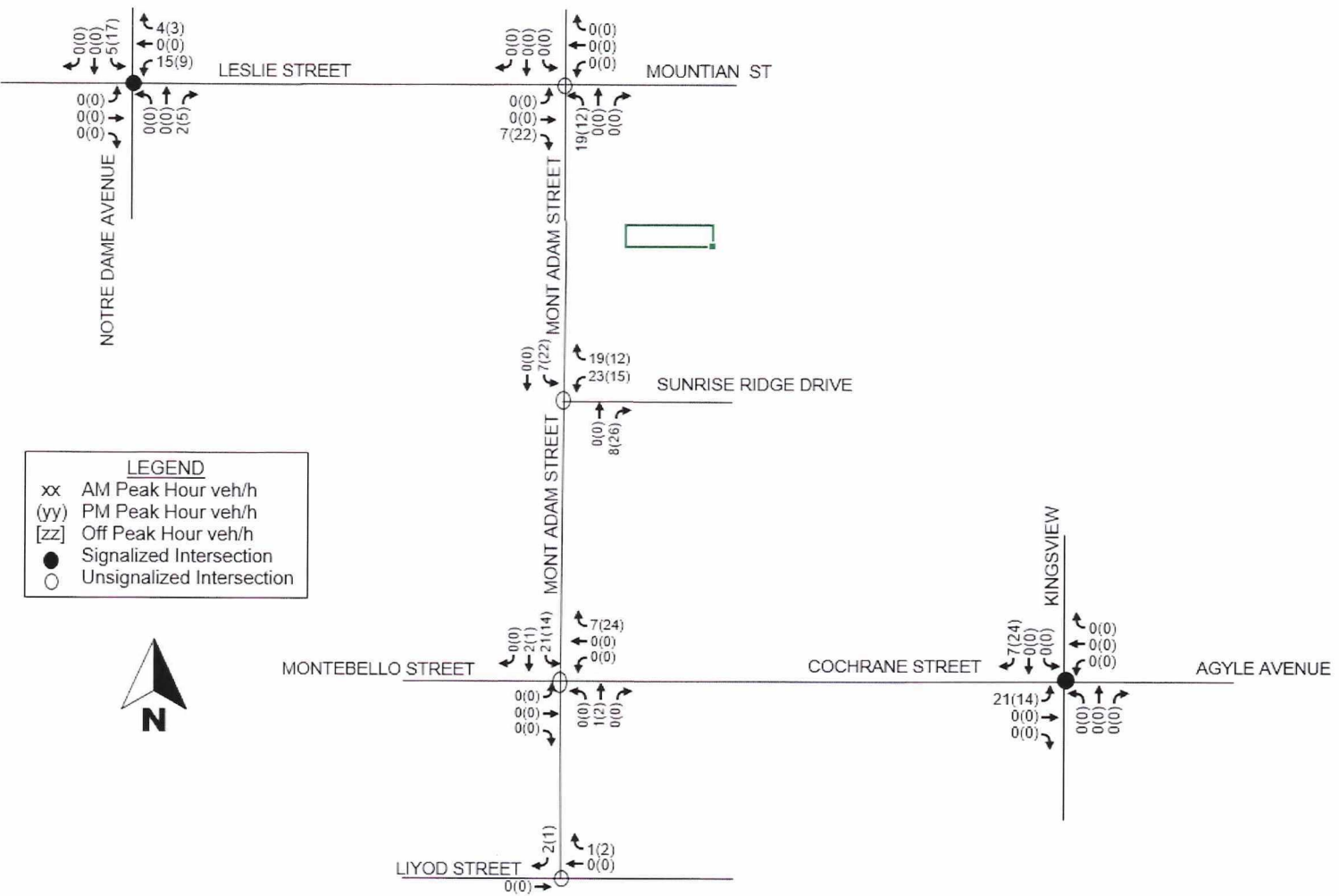


Figure 7: Scenario 1 Site Traffic

4.2.2 Scenario 2 – Three Midrise Buildings

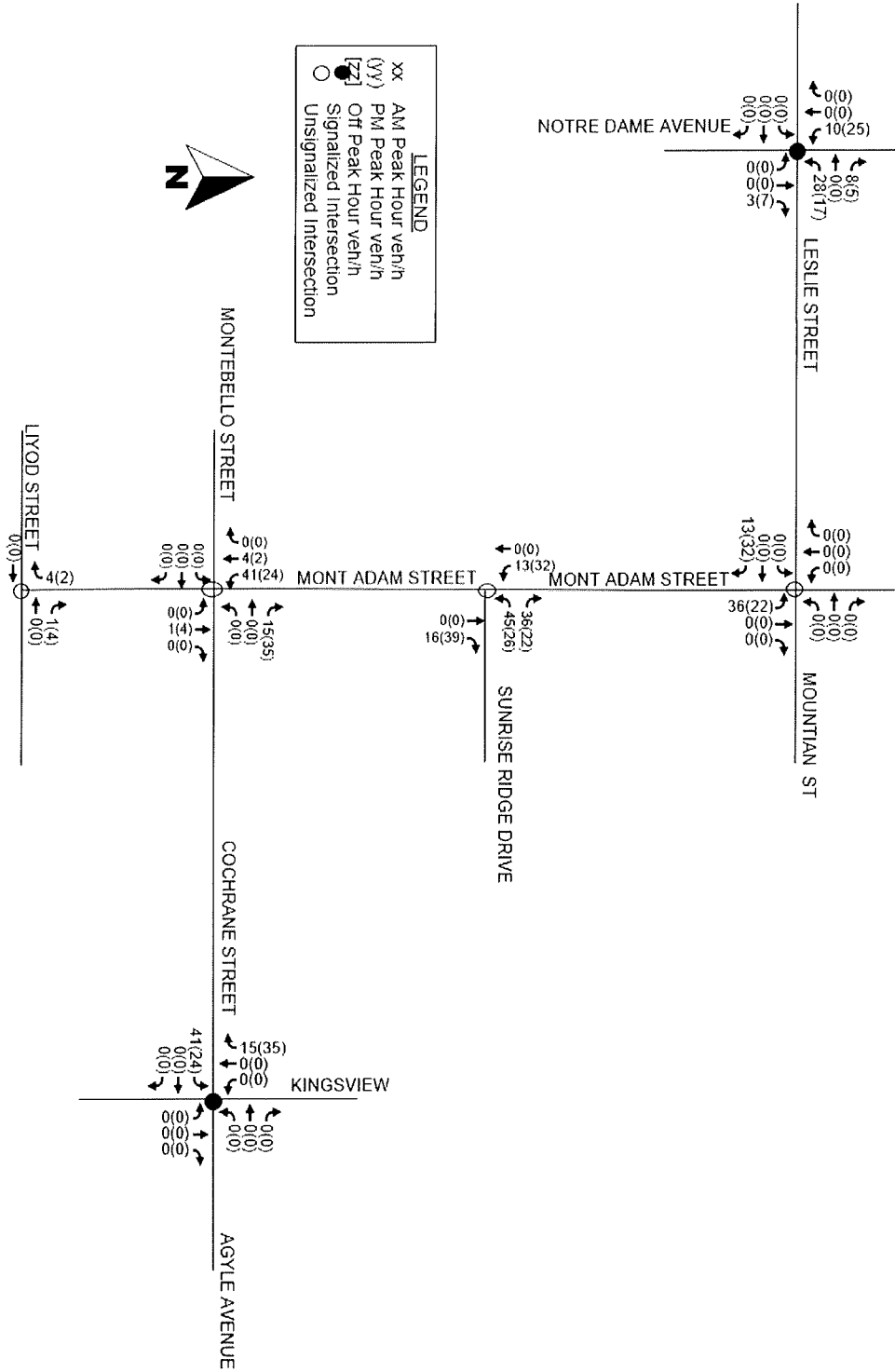


Figure 8: Scenario 2 Site Traffic

4.3 2028 Future Total Conditions

Traffic operations under future 2028 total conditions were analyzed for the weekday AM and weekday PM peak hours. The traffic analysis and results for the future total conditions are discussed in this section.

4.3.1 Scenario 1 – 70 Single Family Homes

Future (2028) total intersection operations were assessed using the existing lane configurations. The Scenario 1 future (2028) total traffic volumes were estimated by adding the Scenario 1 site traffic (**Figure 7**) to future (2028) background volumes (**Figure 6**) and the resulting future (2028) total traffic volumes are illustrated in **Figure 9**. The analysis results are provided in **Table 8** and detailed calculations are provided in **Appendix G**.

Figure 9: Scenario 1 - Future (2028) Total Traffic Volumes

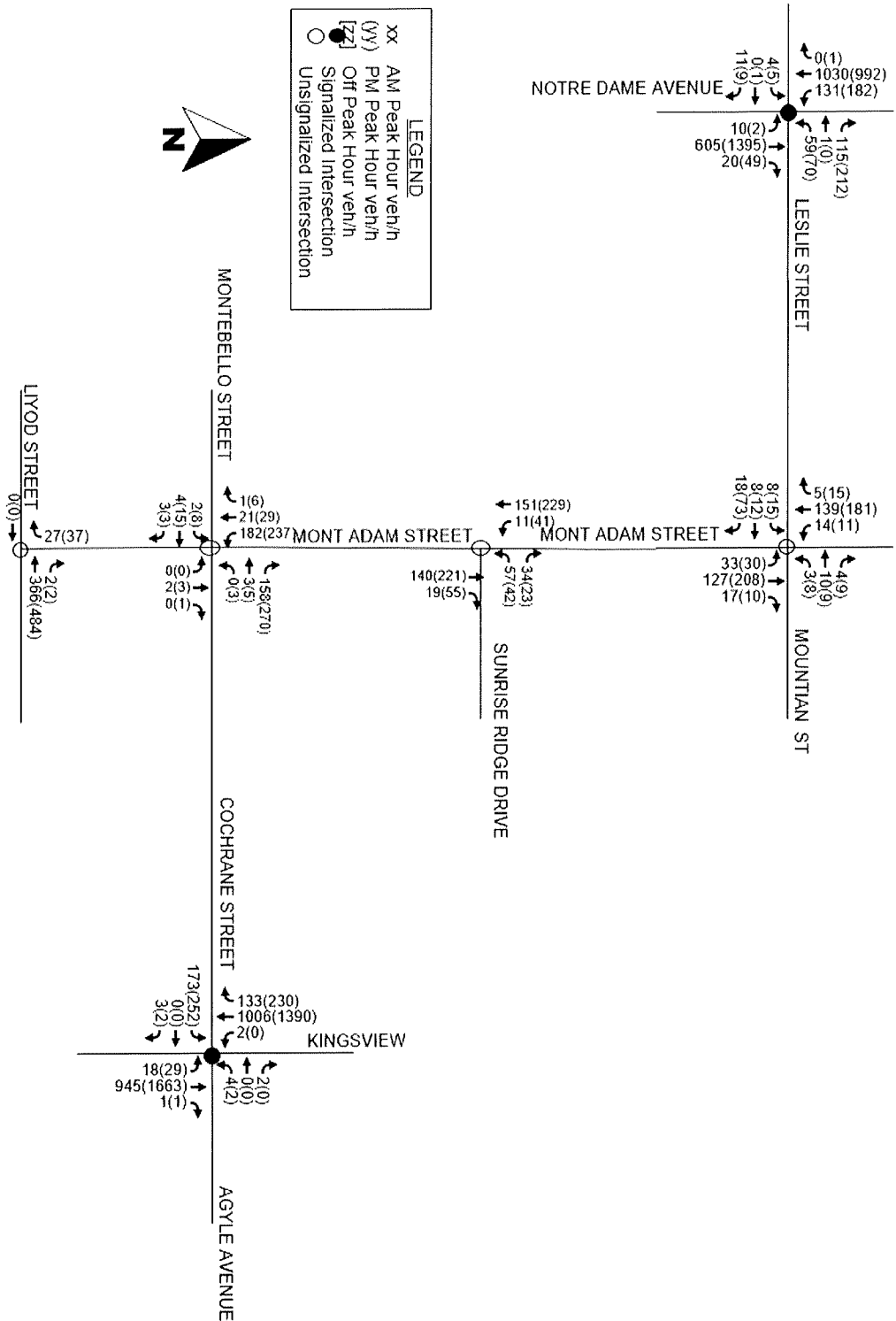


Table 8: Scenario 1 – Future (2028) Total Traffic Operations

Direction / Movement		Storage (m)	v/c	Delay (s)	LOS	95% ^{ile} Queue (m)
Mont Adam Street and Sunrise Ridge Drive (Unsignalized)						
WB	LR	>100	0.17 (0.18)	11 (14)	B (B)	16 (15)
NB	TR	>100	0.12 (0.20)	0 (0)	A (A)	<7 (<7)
SB	LT	>100	0.01 (0.04)	1 (2)	A (A)	<7 (7)
Mont Adam Street at Montebello Street/ Cochrane Street (Unsignalized)						
EB	LTR	75	0.04 (0.20)	13 (24)	B (C)	13 (16)
WB	LTR	>100	0.19 (0.36)	9 (11)	A (B)	20 (21)
NB	LTR	85	0.00 (0.00)	0 (0)	A (A)	<7 (<7)
SB	LTR	>100	0.13 (0.19)	7 (7)	A (A)	<7 (<7)
Mountain Street and Mont Adam Street (Unsignalized)						
EB	LTR	60	0.06 (0.19)	8 (9)	A (A)	14 (12)
WB	LTR	>100	0.05 (0.06)	8 (9)	A (A)	16 (12)
NB	LTR	>100	0.26 (0.38)	9 (11)	A (B)	18 (18)
SB	LTR	>100	0.24 (0.31)	9 (10)	A (A)	21 (19)
Overall		-	-	9 (10)	A (A)	-
Lloyd Street at Mont Adam Street (Unsignalized)						
EB	T	>100	0.00 (0.00)	0 (0)	-	<7 (<7)
WB	TR	25	0.25 (0.32)	0 (0)	-	<7 (<7)
SB	LR	85	0.07 (0.10)	12 (12)	B (B)	<7 (<7)
Kingsway at Cochrane Street/Argyle Avenue (Signalized)						
EB	LTR	135	0.59 (0.79)	27 (38)	C (D)	49 (61)
WB	LTR	70	0.01 (0.01)	19 (20)	B (C)	8 (<7)
NB	L	45	0.13 (0.39)	8 (13)	A (B)	15 (47)
	TR	135	0.67 (0.90)	12 (20)	B (B)	60 (80)
SB	L	20	0.02 (0.00)	7 (0)	A (A)	10 (<7)

	TR	135	0.60 (0.87)	9 (18)	A (B)	90 (326)
Overall		-	0.66 (0.92)	12 (21)	B (C)	-
Notre Dame Avenue at Leslie Street/Driveway (Signalized)						
EB	LTR	75	0.02 (0.04)	23 (23)	C (C)	10 (8)
WB	LTR	80	0.49 (0.64)	27 (31)	C (C)	37 (46)
NB	L	105	0.14 (0.02)	10 (10)	B (B)	12 (<7)
	T	>100	0.30 (0.66)	10 (16)	B (B)	45 (83)
SB	L	35	0.35 (0.80)	5 (27)	A (C)	26 (40)
	T	>100	0.35 (0.33)	6 (7)	A (A)	49 (56)
Overall		-	0.41 (0.79)	10 (15)	A (B)	-

Legend: AM (PM)

All movements are expected to operate at an acceptable level of service. Assessing the 95th percentile queue indicates that there is adequate storage for all movements except for the following two intersection movements:

- Kingsway at Cochrane Street/Argyle Avenue - Northbound left is half-a-car length beyond available storage during the PM peak hour, which can be accommodated by the taper.
- Notre Dame Avenue at Leslie Street/Driveway - Southbound left is half-a-car length beyond available storage during the PM peak hour, which can be accommodated by the taper.

Additionally, similar to the future background scenario, the Kingsway at Cochrane Street/Argyle Avenue intersection is expected to experience southbound queues that extend past the Kitchener Avenue upstream intersection.

It should be noted that the traffic generated by the proposed development will have a minimal effect on the projected queuing conditions that are mostly attributable to background traffic.

4.3.1.1 Proposed Mitigations

Based on the analysis results provided in **Table 8**, no mitigation measures are required under Scenario 1 future (2028) total conditions.

4.3.2 Scenario 2 – Three Midrise Buildings

Future (2028) total intersection operations were assessed using the existing lane configurations. The Scenario 2 future (2028) total traffic volumes were estimated by adding the Scenario 2 site traffic (**Figure 8**) to future (2028) background volumes (**Figure 6**) and the resulting future (2028) total traffic volumes are illustrated in **Figure 10**. The analysis results are provided in **Table 9** and detailed calculations are provided in **Appendix F**.

Figure 10: Scenario 2 – Future (2028) Total Traffic Volumes

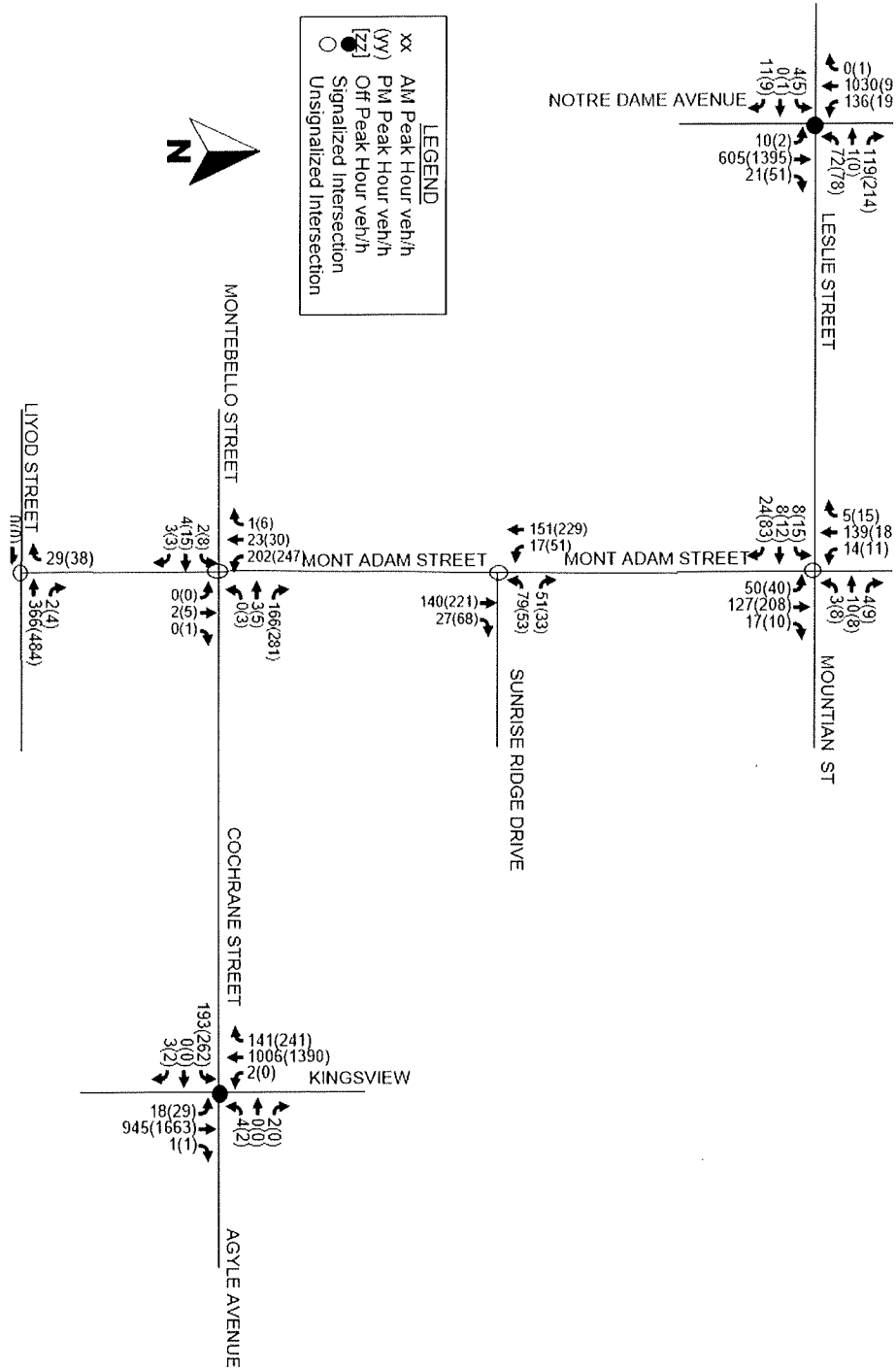


Table 9: Scenario 2 – Future (2028) Total Traffic Operations

Direction / Movement		Storage (m)	v/c	Delay (s)	LOS	95% ^{11e} Queue (m)
Mont Adam Street and Sunrise Ridge Drive (Unsignalized)						
WB	LR	>100	0.25 (0.25)	12 (15)	B (C)	23 (13)
NB	TR	>100	0.13 (0.22)	0 (0)	A (A)	<7 (<7)
SB	LT	>100	0.01 (0.05)	1 (2)	A (A)	<7 (11)
Mont Adam Street at Montebello Street/ Cochrane Street (Unsignalized)						
EB	LTR	75	0.05 (0.22)	14 (26)	B (D)	11 (13)
WB	LTR	>100	0.19 (0.38)	9 (11)	A (B)	21 (20)
NB	LTR	85	0.00 (0.00)	0 (0)	A (A)	<7 (<7)
SB	LTR	>100	0.15 (0.20)	7 (7)	A (A)	<7 (<7)
Mountain Street and Mont Adam Street (Unsignalized)						
EB	LTR	60	0.07 (0.21)	8 (9)	A (A)	18 (14)
WB	LTR	>100	0.05 (0.07)	8 (9)	A (A)	12 (12)
NB	LTR	>100	0.28 (0.41)	9 (11)	A (B)	17 (16)
SB	LTR	>100	0.25 (0.32)	9 (10)	A (A)	18 (20)
Overall		-	-	9 (10)	A (A)	-
Lloyd Street at Mont Adam Street (Unsignalized)						
EB	T	>100	0.00 (0.00)	0 (0)	-	<7 (<7)
WB	TR	25	0.25 (0.32)	0 (0)	-	<7 (<7)
SB	LR	85	0.07 (0.10)	12 (12)	B (B)	<7 (<7)
Kingsway at Cochrane Street/Argyle Avenue (Signalized)						
EB	LTR	135	0.65 (0.80)	28 (39)	C (D)	39 (56)
WB	LTR	70	0.01 (0.01)	19 (20)	B (B)	<7 (<7)
NB	L	45	0.14 (0.39)	9 (14)	A (B)	16 (52)
	TR	135	0.68 (0.91)	13 (21)	B (C)	58 (81)
SB	L	20	0.02 (0.00)	7 (0)	A (A)	15 (<7)

	TR	135	0.62 (0.88)	9 (19)	A (B)	102 (319)
Overall		-	0.69 (0.93)	13 (22)	B (C)	-
Notre Dame Avenue at Leslie Street/Driveway (Signalized)						
EB	LTR	75	0.02 (0.04)	23 (22)	C (C)	10 (12)
WB	LTR	80	0.57 (0.68)	29 (32)	C (C)	34 (54)
NB	L	105	0.14 (0.02)	11 (11)	B (B)	10 (<7)
	T	>100	0.30 (0.67)	11 (17)	B (B)	49 (95)
SB	L	35	0.37 (0.85)	6 (35)	A (C)	28 (36)
	T	>100	0.36 (0.34)	7 (7)	A (A)	45 (44)
Overall		-	0.45 (0.84)	10 (16)	B (B)	-

Legend: AM (PM)

All movements are expected to operate at an acceptable level of service. Assessing the 95th percentile queue indicates that there is adequate storage for all movements except for the following two intersection movements:

- Kingsway at Cochrane Street/Argyle Avenue - Northbound left is one car length beyond available storage during the PM peak hour, which can be accommodated by the taper.
- Notre Dame Avenue at Leslie Street/Driveway - Southbound left only one metre beyond available storage during the PM peak hour, which can be accommodated by the taper.

Additionally, similar to the future background scenario, the Kingsway at Cochrane Street/Argyle Avenue intersection is expected to experience southbound queues that extend past the Kitchener Avenue upstream intersection.

Once again, it should be noted that the traffic generated by the proposed development will have a minimal effect on the projected queuing conditions that are mostly attributable to background traffic.

4.3.2.1 Proposed Mitigations

Based on the analysis results provided in **Table 9**, no mitigation measures are required under Scenario 2 future (2028) total conditions.

5 Conclusion

Based on the analysis results, the following conclusions can be made:

- The analysis results indicate that all movements at study intersections are operating with acceptable level of service and residual capacity during the weekday AM and weekday PM peak hours under existing conditions.
- The site is expected to generate 57 new auto trips during the weekday AM peak hour and 75 new auto trips during the weekday PM peak hour for scenario 1.
- For scenario 2 the site is expected to generate 110 new auto trips during the weekday AM peak hour and 119 new auto trips during the weekday PM peak hour.
- The analysis results indicate that all movements at study intersections are expected to operate with acceptable level of service and residual capacity during the weekday AM and weekday PM peak hours under future background and both Scenario 1 and Scenario 2 future total conditions.
- No mitigation measures are required under all 2028 future scenarios.



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A

Appendix A: Terms of Reference Documentation

June 8, 2023

Attention: Ryan Purdy, Traffic and Transportation Engineering Analyst

CC: Kevin Jarus – Tulloch, Sam Biasucci – 920936 Ontario Inc.

RE: Terms of Reference for the Preparation of a Traffic Impact Study – Zoning By-Law Amendment – 0 Fieldstone Drive

Dear Ryan

As per the requirements established in the Pre-Consultation Understanding dated January 10, 2019, we would like to present for your review and comments the following Terms of Reference for the completion of a Traffic Impact Study supporting the Zoning By-Law Amendment of 0 Fieldstone Drive. The present document summarizes our understanding of the assignment, outlines our work plan, and the need for information to support the preparation of the Study.

Background and Understanding

We were advised that 920936 Ontario Inc - a Tulloch's client, is planning the rezoning of a portion of a (draft) approved subdivision located at 0 Fieldstone Drive, in Sudbury ON (see **Figure 1**).

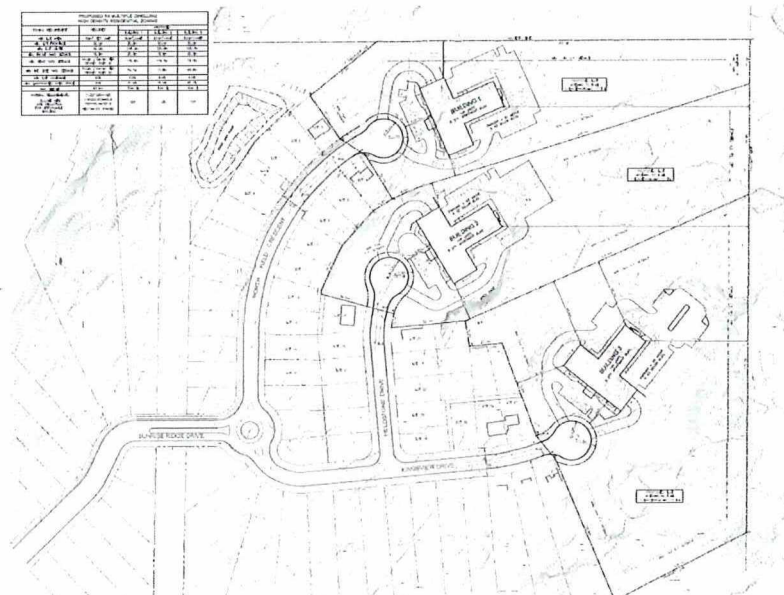


Figure 1 Proposed Development – 0 Fieldstone Drive

Based on information provided by Tulloch it is our understanding that the City provided to 920936 Ontario Inc., a Pre-Consultation Understanding report indicating the following requirements:



- That the owner apply to rezone the lands from “R1-5,” Low Density Residential One to “R4”, High Density Residential in order to permit the development of three nine-storey multiple dwellings with each building containing a maximum of 108 residential dwellings units for a total of 324 residential dwelling units.
- The submission of a Traffic Impact Study (TIS) that has been completed by a qualified professional engineer is required. The TIS must at a minimum assess the traffic impacts of the proposed development on the surrounding road system and identify any improvements to the road system or mitigating measures to that would be necessary in order to accommodate the development.
- The TIS must also consider active transportation and traffic-calming measures that would be appropriate in this particular urban residential context.

Based on our communications with Tulloch regarding the potential scope of work we also understand that:

- Only traffic generated by the new 3 buildings will be considered development driven.
- Traffic generated by the single detached residences for Phase 1, Phase 2, and the remaining units in the rezoning portion of the site plan will be considered as Background. The estimated total number of units is 124.
- The study area will have its origin in the west leg of the proposed roundabout as shown in Figure 1. The operational analysis of the roundabout is not included as part of the TIS.
- An alternative scenario will be considered as part of the TIS in which the traffic generated by 70 residential units (single detached) will replace the traffic generated by the proposed 3 buildings.

Work Plan

Task 1: Review of Background Information and Estimation of Volumes

CIMA+ will review all relevant background information related to the proposed development and estimated traffic volumes at the proposed access (Sunrise Ridge Drive). In order to complete this task, we would appreciate if the City can confirm the availability of the following information:

- Turning movement counts (TMC), historical and recent AADT volume information for the following roads:
 - o Mont Adam Street and Sunrise Ridge Drive (stop control minor road)
 - o Mont Adam Street and Montebello Street/Cochrane Street (stop control minor road)
 - o Mont Adam Street and Mountain Street (all-way stop)
 - o Mont Adam Street and Lloyd Street (RIRO)
 - o Cochrane Street and Kingsway (signalized)
 - o Leslie Street and Notre Dame Avenue (signalized)
- Collision records for the past 5 years;

If the City cannot provide some or any of the aforementioned information, we would appreciate if the City can confirm the time (AM and PM peaks) and periods (weekday or Saturday) that needs to be considered for data collection.



Task 2: Trip Generation, Distribution, Assignment & Traffic Control Assessment

CIMA+ will undertake trip generation calculations, distribution and assignment for the proposed development based on the information to be provided by the developer. Trip generation will be conducted using the Institute of Transportation (ITE) Trip Generation manual, 11th edition.

This assessment will include two different scenarios:

- Scenario 1 that will consider the effects of the number of single detached units included as part of the original zoning plan, and
- Scenario 2 that will consider the effects of the 3 new buildings.

CIMA+ will evaluate necessary changes to the existing control at the aforementioned intersections of Mont Adam Street, Cochrane Street and Leslie Street. Similarly, the potential effects on the existing traffic control, auxiliary lanes, and tapers at the aforementioned intersections will be identified. The traffic control assessment will consider the increased volume of traffic associated with the proposed development and the surrounding area for the future horizon of 5 years from the date of the TIS. To this purpose we would appreciate if the City can confirm the growth rate to be used for estimation of the future background traffic. Considerations for other modes of transportation will be included as part of our analysis.

Task 3: Review for Additional Roadway Improvements

CIMA+ will evaluate the need for any improvements at the aforementioned intersections in accordance with the TAC Road Design Guide, and other applicable municipal design standards.

Task 4: Prepare Draft and Final TIS Report

CIMA+ will prepare a draft report summarizing Tasks 1 through 3 that will be submitted to the City for review and comments. Any comments provided by the City will be addressed as part of the Final TIS Report.

It is assumed that the design of any necessary improvements to support the City's approval will be conducted by Tulloch.

Closing

I would like to thank you in advance for your prompt response. If we need to discuss any portion of this Terms of Reference, please let us know and I will reach to you to discuss.

Sincerely,

CIMA Canada Inc.

A handwritten signature in black ink, appearing to read 'Jaime Garcia', is positioned above the printed name.

Jaime Garcia, P.Eng., Ph.D.

Senior Project Manager, Transportation

jaime.garcia@cima.ca

B

Appendix B: Existing Traffic Counts and Signal Timing Plans



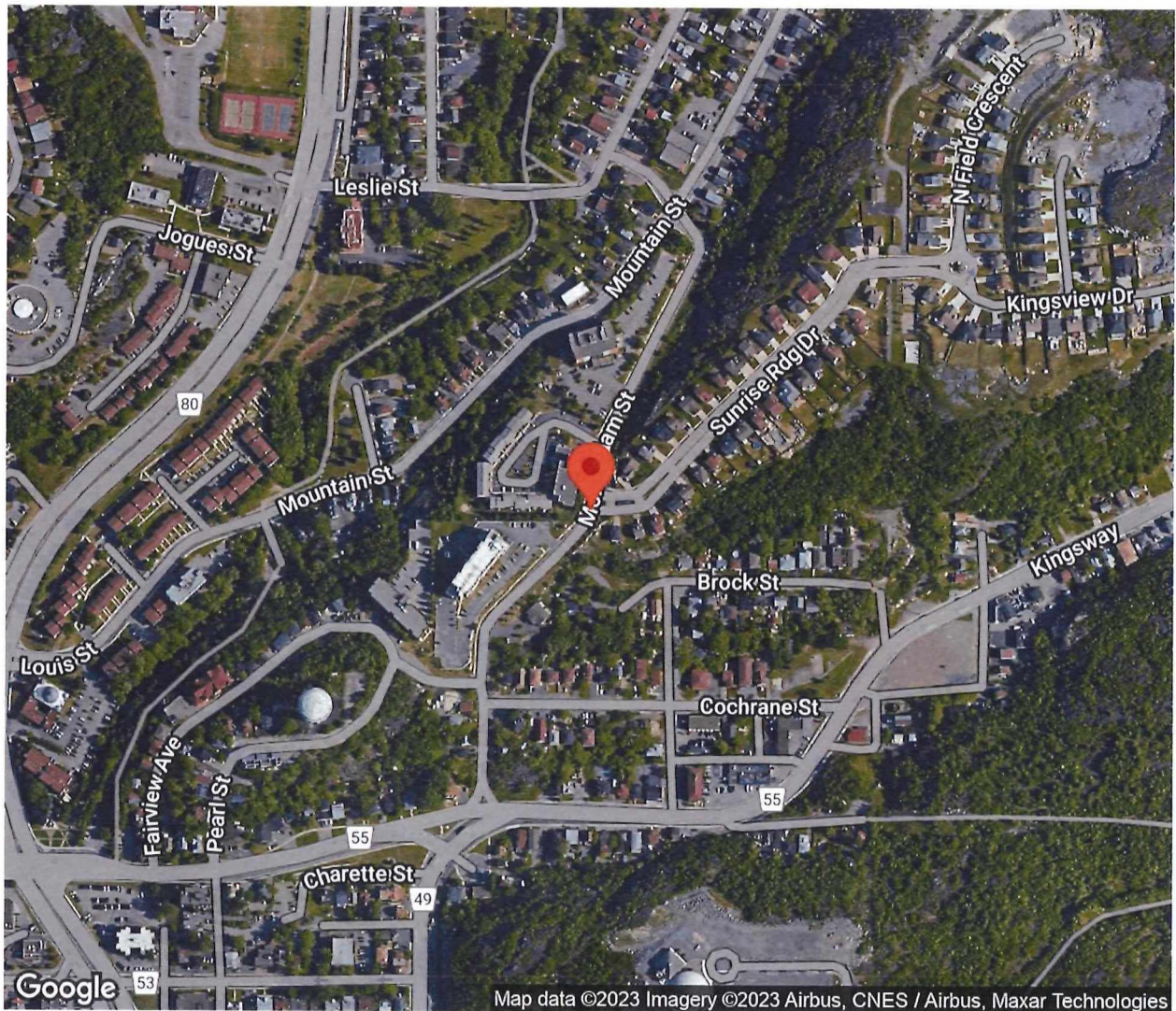
Project #23-259 - CIMA+

Intersection Count Report

Intersection:	Mont Adam St & Sunrise Ridge Dr
Municipality:	Sudbury
Count Date:	Wednesday, Aug 30, 2023
Site Code:	2325900001
Count Categories:	Cars, Trucks, Bicycles, Pedestrians
Count Period:	07:00-09:00, 11:00-13:00, 16:00-18:00
Weather:	Clear
Comments:	

Traffic Count Map

Intersection:	Mont Adam St & Sunrise Ridge Dr
Site Code:	2325900001
Municipality:	Sudbury
Count Date:	Aug 30, 2023





Ontario Traffic Inc.
Traffic Monitoring • Services & Products

Traffic Count Summary

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

Mont Adam St - Traffic Summary

North Approach Totals							South Approach Totals						
Includes Cars, Trucks, Bicycles							Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	3	121	0	0	124	0	0	85	6	0	91	0	215
08:00 - 09:00	5	131	0	0	136	0	0	122	13	0	135	1	271
BREAK													
11:00 - 12:00	10	144	0	1	155	0	0	147	13	0	160	0	315
12:00 - 13:00	5	172	0	0	177	0	0	146	16	0	162	0	339
BREAK													
16:00 - 17:00	19	209	0	0	228	0	0	170	21	1	192	2	420
17:00 - 18:00	20	185	0	0	205	0	0	182	29	0	211	1	416
GRAND TOTAL	62	962	0	1	1025	0	0	852	98	1	951	4	1976



Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach Totals

West Approach Totals

Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	30	0	3	0	33	0	0	0	0	0	0	0	33
08:00 - 09:00	27	0	19	0	46	1	0	0	0	0	0	0	46
BREAK													
11:00 - 12:00	23	0	6	0	29	0	0	0	0	0	0	0	29
12:00 - 13:00	15	0	9	0	24	0	0	0	0	0	0	0	24
BREAK													
16:00 - 17:00	28	0	8	0	36	2	0	0	0	0	0	0	36
17:00 - 18:00	21	0	8	0	29	0	0	0	0	0	0	0	29
GRAND TOTAL	144	0	53	0	197	3	0	0	0	0	0	0	197

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
 Site Code: 2325900001
 Municipality: Sudbury
 Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	21	0	0	21	0	0	0	0	0	0	0	0	0	0	0
07:15	1	29	0	0	30	0	2	0	0	2	0	0	0	0	0	0
07:30	1	28	0	0	29	0	0	0	0	0	0	0	0	0	0	0
07:45	1	41	0	0	42	0	0	0	0	0	0	0	0	0	0	0
08:00	1	29	0	0	30	0	0	0	0	0	0	0	0	0	0	0
08:15	1	35	0	0	36	0	0	0	0	0	0	0	0	0	0	0
08:30	0	35	0	0	35	1	0	0	0	1	0	0	0	0	0	0
08:45	2	32	0	0	34	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	7	250	0	0	257	1	2	0	0	3	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
11:00	0	38	0	1	39	0	1	0	0	1	0	0	0	0	0	0
11:15	2	31	0	0	33	1	1	0	0	2	0	0	0	0	0	0
11:30	1	38	0	0	39	0	0	0	0	0	0	0	0	0	0	0
11:45	6	35	0	0	41	0	0	0	0	0	0	0	0	0	0	0
12:00	1	43	0	0	44	0	0	0	0	0	0	0	0	0	0	0
12:15	2	33	0	0	35	0	1	0	0	1	0	0	0	0	0	0
12:30	2	50	0	0	52	0	0	0	0	0	0	0	0	0	0	0
12:45	0	44	0	0	44	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	14	312	0	1	327	1	4	0	0	5	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	3	37	0	0	40	0	2	0	0	2	0	0	0	0	0	0
16:15	7	53	0	0	60	0	1	0	0	1	0	0	0	0	0	0
16:30	5	63	0	0	68	0	0	0	0	0	0	0	0	0	0	0
16:45	4	53	0	0	57	0	0	0	0	0	0	0	0	0	0	0
17:00	5	42	0	0	47	0	0	0	0	0	0	0	0	0	0	0
17:15	4	55	0	0	59	0	0	0	0	0	0	0	0	0	0	0
17:30	6	47	0	0	53	0	1	0	0	1	0	0	0	0	0	0
17:45	5	40	0	0	45	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	39	390	0	0	429	0	4	0	0	4	0	0	0	0	0	0
GRAND TOTAL	60	952	0	1	1013	2	10	0	0	12	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	13	0	0	13	0	1	1	0	2	0	0	0	0	0	0
07:15	0	13	2	0	15	0	1	0	0	1	0	0	0	0	0	0
07:30	0	19	1	0	20	0	2	0	0	2	0	0	0	0	0	0
07:45	0	34	1	0	35	0	2	1	0	3	0	0	0	0	0	0
08:00	0	34	5	0	39	0	0	0	0	0	0	0	0	0	0	0
08:15	0	36	1	0	37	0	0	0	0	0	0	1	0	0	1	1
08:30	0	21	2	0	23	0	2	0	0	2	0	0	0	0	0	0
08:45	0	28	4	0	32	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	0	198	16	0	214	0	8	3	0	11	0	1	0	0	1	1

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	0	34	4	0	38	0	0	0	0	0	0	0	0	0	0	0
11:15	0	29	4	0	33	0	1	0	0	1	0	0	0	0	0	0
11:30	0	48	1	0	49	0	1	0	0	1	0	0	0	0	0	0
11:45	0	34	4	0	38	0	0	0	0	0	0	0	0	0	0	0
12:00	0	35	7	0	42	0	0	0	0	0	0	0	0	0	0	0
12:15	0	40	2	0	42	0	0	0	0	0	0	0	0	0	0	0
12:30	0	31	4	0	35	0	2	0	0	2	0	0	0	0	0	0
12:45	0	38	3	0	41	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	289	29	0	318	0	4	0	0	4	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	0	37	6	0	43	0	0	0	0	0	0	0	0	0	0	2
16:15	0	34	6	0	40	0	1	0	0	1	0	0	0	0	0	0
16:30	0	55	5	1	61	0	3	0	0	3	0	0	0	0	0	0
16:45	0	40	4	0	44	0	0	0	0	0	0	0	0	0	0	0
17:00	0	54	6	0	60	0	0	0	0	0	0	0	0	0	0	1
17:15	0	53	11	0	64	0	0	0	0	0	0	0	0	0	0	0
17:30	0	39	7	0	46	0	2	0	0	2	0	1	0	0	1	0
17:45	0	33	5	0	38	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	345	50	1	396	0	6	0	0	6	0	1	0	0	1	3
GRAND TOTAL	0	832	95	1	928	0	18	3	0	21	0	2	0	0	2	4

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
 Site Code: 2325900001
 Municipality: Sudbury
 Count Date: Aug 30, 2023

East Approach - Sunrise Ridge Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
07:00	6	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0
07:15	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
07:30	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0
07:45	9	0	2	0	11	1	0	0	0	1	0	0	0	0	0	0
08:00	6	0	3	0	9	0	0	0	0	0	0	0	0	0	0	0
08:15	6	0	5	0	11	1	0	0	0	1	1	0	0	0	1	1
08:30	7	0	4	0	11	1	0	0	0	1	0	0	0	0	0	0
08:45	5	0	6	0	11	0	0	1	0	1	0	0	0	0	0	0
SUBTOTAL	53	0	21	0	74	3	0	1	0	4	1	0	0	0	1	1

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
 Site Code: 2325900001
 Municipality: Sudbury
 Count Date: Aug 30, 2023

East Approach - Sunrise Ridge Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
11:00	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
11:15	6	0	3	0	9	0	0	0	0	0	0	0	0	0	0	0
11:30	7	0	0	0	7	1	0	0	0	1	0	0	0	0	0	0
11:45	5	0	3	0	8	0	0	0	0	0	0	0	0	0	0	0
12:00	4	0	2	0	6	0	0	0	0	0	0	0	0	0	0	0
12:15	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0
12:30	3	0	2	0	5	0	0	0	0	0	0	0	0	0	0	0
12:45	5	0	3	0	8	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	37	0	15	0	52	1	0	0	0	1	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Sunrise Ridge Dr

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	7	0	1	0	8	0	0	1	0	1	0	0	0	0	0	0
16:15	6	0	0	0	6	0	0	0	0	0	0	0	0	0	0	2
16:30	6	0	3	0	9	0	0	0	0	0	0	0	0	0	0	0
16:45	9	0	3	0	12	0	0	0	0	0	0	0	0	0	0	0
17:00	5	0	1	0	6	0	0	0	0	0	0	0	0	0	0	0
17:15	5	0	3	0	8	0	0	0	0	0	0	0	0	0	0	0
17:30	6	0	3	0	9	0	0	0	0	0	0	0	0	0	0	0
17:45	5	0	1	0	6	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	49	0	15	0	64	0	0	1	0	1	0	0	0	0	0	2
GRAND TOTAL	139	0	51	0	190	4	0	2	0	6	1	0	0	0	1	3

Peak Hour Diagram

Specified Period

From: 07:00:00
To: 09:00:00

One Hour Peak

From: 07:45:00
To: 08:45:00

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	143	139	282
	1	4	5
	0	1	1
Totals	144	144	288

Mont Adam St

	0	0	0
	0	1	0
	140	3	0
Totals	140	4	0

East Approach

	Out	In	Total
	42	12	54
	3	2	5
	1	0	1
Totals	46	14	60

Peds: 0



Peds: 1

	Out	In	Total
	125	9	0
	4	1	0
	1	0	0
Totals	130	10	0

Mont Adam St

Sunrise Ridge Dr

Totals			
	0	0	0
	14	14	0
	32	28	3

South Approach

	Out	In	Total
	134	168	302
	5	3	8
	1	1	2
Totals	140	172	312

 - Cars

 - Trucks

 - Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Count Date: Aug 30, 2023
Period: 07:00 - 09:00

Peak Hour Data (07:45 - 08:45)

	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Sunrise Ridge Dr						West Approach						Total Vehicles
Start Time	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
07:45	1	41		0	0	42		36	2	0	0	38	10		2	0	0	12					0		92
08:00	1	29		0	0	30		34	5	0	0	39	6		3	0	0	9					0		78
08:15	1	35		0	0	36		37	1	0	1	38	8		5	0	1	13					0		87
08:30	1	35		0	0	36		23	2	0	0	25	8		4	0	0	12					0		73
Grand Total	4	140		0	0	144		130	10	0	1	140	32		14	0	1	46					0	0	330
Approach %	2.8	97.2		0		-		92.9	7.1	0		-	69.6		30.4	0		-						-	
Totals %	1.2	42.4		0		43.6		39.4	3	0		42.4	9.7		4.2	0		13.9					0		
PHF	1	0.85		0		0.86		0.88	0.5	0		0.9	0.8		0.7	0		0.88					0		0.9
Cars	3	140		0		143		125	9	0		134	28		14	0		42					0		319
% Cars	75	100		0		99.3		96.2	90	0		95.7	87.5		100	0		91.3					0		96.7
Trucks	1	0		0		1		4	1	0		5	3		0	0		3					0		9
% Trucks	25	0		0		0.7		3.1	10	0		3.6	9.4		0	0		6.5					0		2.7
Bicycles	0	0		0		0		1	0	0		1	1		0	0		1					0		2
% Bicycles	0	0		0		0		0.8	0	0		0.7	3.1		0	0		2.2					0		0.6
Peds					0	-					1	-					1	-					0	-	2
% Peds					0	-					50	-					50	-					0	-	



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Peak Hour Diagram

Specified Period

From: 11:00:00
To: 13:00:00

One Hour Peak

From: 12:00:00
To: 13:00:00

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	175	153	328
	2	2	4
	0	0	0
Totals	177	155	332

Mont Adam St

	0	0	0
	2	0	0
	170	5	0
Totals	172	5	0



Peds: 0

East Approach

	Out	In	Total
	24	21	45
	0	0	0
	0	0	0
Totals	24	21	45

Sunrise Ridge Dr

Totals			
	0	0	0
	9	9	0
	15	15	0

Peds: 0



Peds: 0

Peds: 0

	146	16	0
	144	16	0
	2	0	0
	0	0	0
Totals	146	16	0

Mont Adam St

South Approach

	Out	In	Total
	160	185	345
	2	2	4
	0	0	0
Totals	162	187	349

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Count Date: Aug 30, 2023
Period: 11:00 - 13:00

Peak Hour Data (12:00 - 13:00)

	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Sunrise Ridge Dr						West Approach						Total Vehicl es
Start Time					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
12:00	1	43		0	0	44		35	7	0	0	42	4		2	0	0	6					0		92
12:15	2	34		0	0	36		40	2	0	0	42	3		2	0	0	5					0		83
12:30	2	50		0	0	52		33	4	0	0	37	3		2	0	0	5					0		94
12:45	0	45		0	0	45		38	3	0	0	41	5		3	0	0	8					0		94
Grand Total	5	172		0	0	177		146	16	0	0	162	15		9	0	0	24					0	0	363
Approach %	2.8	97.2		0		-		90.1	9.9	0		-	62.5		37.5	0		-					-		
Totals %	1.4	47.4		0		48.8		40.2	4.4	0		44.6	4.1		2.5	0		6.6					0		
PHF	0.63	0.86		0		0.85		0.91	0.57	0		0.96	0.75		0.75	0		0.75					0		0.97
Cars	5	170		0		175		144	16	0		160	15		9	0		24					0		359
% Cars	100	98.8		0		98.9		98.6	100	0		98.8	100		100	0		100					0		98.9
Trucks	0	2		0		2		2	0	0		2	0		0	0		0					0		4
% Trucks	0	1.2		0		1.1		1.4	0	0		1.2	0		0	0		0					0		1.1
Bicycles	0	0		0		0		0	0	0		0	0		0	0		0					0		0
% Bicycles	0	0		0		0		0	0	0		0	0		0	0		0					0		0
Peds					0	-					0	-					0	-					0	-	0
% Peds					0	-					0	-					0	-					0	-	



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Peak Hour Diagram

Specified Period

From: 16:00:00
To: 18:00:00

One Hour Peak

From: 16:30:00
To: 17:30:00

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	231	212	443
	0	3	3
	0	0	0
Totals	231	215	446

Mont Adam St

	0	0	0
	0	0	0
	213	18	0
Totals	213	18	0

East Approach

	Out	In	Total
	35	44	79
	0	0	0
	0	0	0
Totals	35	44	79

Peds: 0

Peds: 0



Peds: 0

Peds: 1

Sunrise Ridge Dr

Totals			
0	0	0	0
10	10	0	0
25	25	0	0

Totals			
205	26	1	
	202	26	1
	3	0	0
	0	0	0

South Approach

	Out	In	Total
	229	239	468
	3	0	3
	0	0	0
Totals	232	239	471

Mont Adam St

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Sunrise Ridge Dr
Site Code: 2325900001
Count Date: Aug 30, 2023
Period: 16:00 - 18:00

Peak Hour Data (16:30 - 17:30)

	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Sunrise Ridge Dr						West Approach						Total Vehicl es
Start Time					Peds	Total					Peds	Total					Peds	Total					Peds	Total	
16:30	5	63		0	0	68		58	5	1	0	64	6		3	0	0	9					0		141
16:45	4	53		0	0	57		40	4	0	0	44	9		3	0	0	12					0		113
17:00	5	42		0	0	47		54	6	0	1	60	5		1	0	0	6					0		113
17:15	4	55		0	0	59		53	11	0	0	64	5		3	0	0	8					0		131
Grand Total	18	213		0	0	231		205	26	1	1	232	25		10	0	0	35					0	0	498
Approach %	7.8	92.2		0		-		88.4	11.2	0.4		-	71.4		28.6	0		-					-		
Totals %	3.6	42.8		0		46.4		41.2	5.2	0.2		46.6	5		2	0		7					0		
PHF	0.9	0.85		0		0.85		0.88	0.59	0.25		0.91	0.69		0.83	0		0.73					0		0.88
Cars	18	213		0		231		202	26	1		229	25		10	0		35					0		495
% Cars	100	100		0		100		98.5	100	100		98.7	100		100	0		100					0		99.4
Trucks	0	0		0		0		3	0	0		3	0		0	0		0					0		3
% Trucks	0	0		0		0		1.5	0	0		1.3	0		0	0		0					0		0.6
Bicycles	0	0		0		0		0	0	0		0	0		0	0		0					0		0
% Bicycles	0	0		0		0		0	0	0		0	0		0	0		0					0		0
Peds					0	-					1	-					0	-					0	-	1
% Peds					0	-					100	-					0	-					0	-	

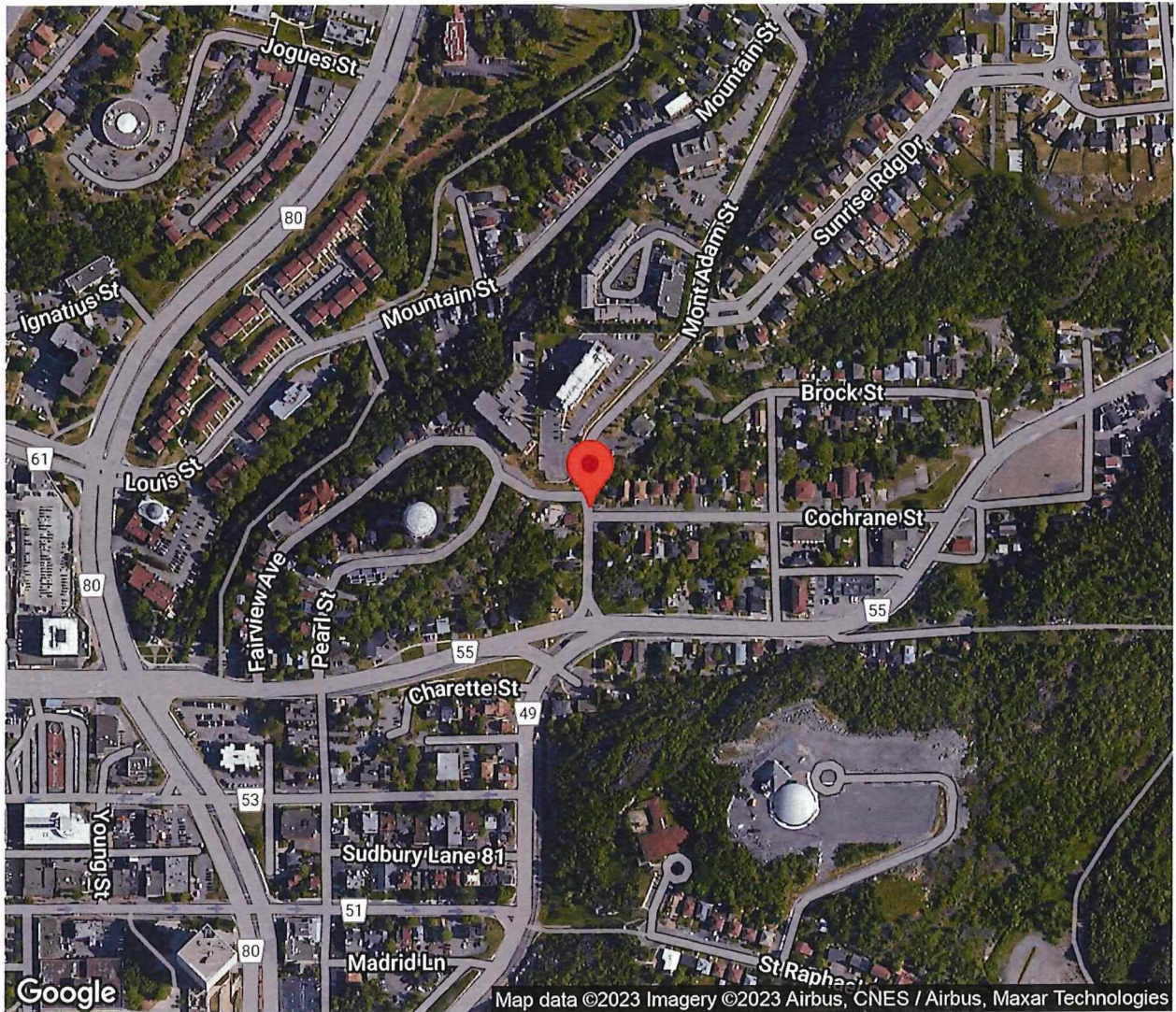
Project #23-259 - CIMA+

Intersection Count Report

Intersection: Mont Adam St & Montebello St - Cochrane St
Municipality: Sudbury
Count Date: Wednesday, Aug 30, 2023
Site Code: 2325900002
Count Categories: Cars, Trucks, Bicycles, Pedestrians
Count Period: 07:00-09:00, 11:00-13:00, 16:00-18:00
Weather: Clear
Comments:

Traffic Count Map

Intersection:	Mont Adam St & Montebello St - Cochrane St
Site Code:	2325900002
Municipality:	Sudbury
Count Date:	Aug 30, 2023



Traffic Count Summary

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Municipality: Sudbury
Count Date: Aug 30, 2023

Mont Adam St - Traffic Summary

North Approach Totals							South Approach Totals						
Hour	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						Total
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	
07:00 - 08:00	124	21	2	0	147	0	0	0	1	0	1	0	148
08:00 - 09:00	136	20	1	0	157	0	0	1	0	0	1	3	158
BREAK													
11:00 - 12:00	144	18	2	0	164	0	0	1	0	0	1	1	165
12:00 - 13:00	166	14	6	0	186	0	0	3	0	0	3	2	189
BREAK													
16:00 - 17:00	208	28	1	0	237	0	0	0	0	0	0	0	237
17:00 - 18:00	183	15	9	0	207	0	0	3	1	0	4	0	211
GRAND TOTAL	961	116	21	0	1098	0	0	8	2	0	10	6	1108

Traffic Count Summary

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Municipality: Sudbury
Count Date: Aug 30, 2023

Cochrane St - Traffic Summary

East Approach Totals							West Approach Totals						
Includes Cars, Trucks, Bicycles							Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	1	3	80	0	84	0	7	5	3	0	15	3	99
08:00 - 09:00	0	4	139	1	144	0	2	4	3	0	9	6	153
BREAK													
11:00 - 12:00	2	3	158	0	163	0	3	4	3	0	10	4	173
12:00 - 13:00	1	6	153	0	160	0	4	6	0	0	10	5	170
BREAK													
16:00 - 17:00	3	5	189	0	197	0	5	9	2	0	16	3	213
17:00 - 18:00	5	7	206	0	218	0	9	11	3	0	23	0	241
GRAND TOTAL	12	28	925	1	966	0	30	39	14	0	83	21	1049

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	24	4	0	0	28	0	0	0	0	0	0	0	0	0	0	0
07:15	26	3	1	0	30	0	1	1	0	2	0	0	0	0	0	0
07:30	30	8	0	0	38	0	0	0	0	0	0	0	0	0	0	0
07:45	44	4	0	0	48	0	1	0	0	1	0	0	0	0	0	0
08:00	31	1	0	0	32	0	0	0	0	0	0	0	0	0	0	0
08:15	37	6	0	0	43	0	0	1	0	1	0	0	0	0	0	0
08:30	36	5	0	0	41	1	1	0	0	2	0	0	0	0	0	0
08:45	30	7	0	0	37	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	258	38	1	0	297	2	3	2	0	7	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	36	4	0	0	40	1	0	0	0	1	0	0	0	0	0	0
11:15	31	6	1	0	38	0	0	0	0	0	0	0	0	0	0	0
11:30	37	4	1	0	42	2	0	0	0	2	0	0	0	0	0	0
11:45	37	4	0	0	41	0	0	0	0	0	0	0	0	0	0	0
12:00	43	2	3	0	48	0	0	0	0	0	0	0	0	0	0	0
12:15	31	5	0	0	36	0	0	0	0	0	0	0	0	0	0	0
12:30	47	3	3	0	53	1	0	0	0	1	0	0	0	0	0	0
12:45	44	4	0	0	48	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	306	32	8	0	346	4	0	0	0	4	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
16:00	40	5	0	0	45	1	0	0	0	1	0	0	0	0	0	0
16:15	51	6	0	0	57	1	0	0	0	1	0	0	0	0	0	0
16:30	67	6	0	0	73	0	0	0	0	0	0	0	0	0	0	0
16:45	48	11	1	0	60	0	0	0	0	0	0	0	0	0	0	0
17:00	37	4	5	0	46	0	0	0	0	0	0	0	0	0	0	0
17:15	55	5	0	0	60	0	0	0	0	0	0	0	0	0	0	0
17:30	47	3	2	0	52	1	0	0	0	1	0	0	0	0	0	0
17:45	43	3	2	0	48	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	388	43	10	0	441	3	0	0	0	3	0	0	0	0	0	0
GRAND TOTAL	952	113	19	0	1084	9	3	2	0	14	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	3

[illegible]

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0
GRAND TOTAL	0	7	1	0	8	0	1	1	0	2	0	0	0	0	0	6

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Cochrane St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
07:00	0	0	12	0	12	0	0	1	0	1	0	0	0	0	0	0
07:15	1	1	15	0	17	0	0	1	0	1	0	0	0	0	0	0
07:30	0	1	16	0	17	0	0	2	0	2	0	0	0	0	0	0
07:45	0	0	31	0	31	0	1	2	0	3	0	0	0	0	0	0
08:00	0	0	40	0	40	0	0	1	0	1	0	0	0	0	0	0
08:15	0	1	37	0	38	0	0	1	0	1	0	0	1	0	1	0
08:30	0	1	26	0	27	0	0	1	0	1	0	0	0	0	0	0
08:45	0	2	32	1	35	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	1	6	209	1	217	0	1	9	0	10	0	0	1	0	1	0

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

East Approach - Cochrane St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	2	0	37	0	39	0	0	0	0	0	0	0	0	0	0	0
11:15	0	1	31	0	32	0	0	1	0	1	0	0	0	0	0	0
11:30	0	0	48	0	48	0	0	1	0	1	0	0	0	0	0	0
11:45	0	2	40	0	42	0	0	0	0	0	0	0	0	0	0	0
12:00	0	4	39	0	43	0	0	0	0	0	0	0	0	0	0	0
12:15	0	1	40	0	41	0	0	0	0	0	0	0	0	0	0	0
12:30	1	0	34	0	35	0	0	1	0	1	0	0	0	0	0	0
12:45	0	1	39	0	40	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	3	9	308	0	320	0	0	3	0	3	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

East Approach - Cochrane St

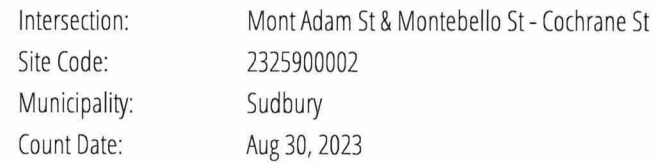
Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	0	0	43	0	43	0	0	1	0	1	0	0	0	0	0	0
16:15	2	3	39	0	44	0	0	1	0	1	0	0	0	0	0	0
16:30	1	2	60	0	63	0	0	2	0	2	0	0	0	0	0	0
16:45	0	0	42	0	42	0	0	1	0	1	0	0	0	0	0	0
17:00	2	3	58	0	63	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	65	0	65	0	0	0	0	0	0	0	0	0	0	0
17:30	2	2	44	0	48	0	0	2	0	2	0	0	1	0	1	0
17:45	1	2	36	0	39	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	8	12	387	0	407	0	0	7	0	7	0	0	1	0	1	0
GRAND TOTAL	12	27	904	1	944	0	1	19	0	20	0	0	2	0	2	0

Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
 Site Code: 2325900002
 Municipality: Sudbury
 Count Date: Aug 30, 2023

West Approach - Montebello St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	1	1	3	0	5	0	0	0	0	0	0	0	0	0	0	1
07:15	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
07:30	4	1	0	0	5	0	2	0	0	2	0	0	0	0	0	1
07:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
08:00	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	3
08:15	1	1	1	0	3	0	0	1	0	1	0	0	0	0	0	2
08:30	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	1
08:45	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	8	7	5	0	20	1	2	1	0	4	0	0	0	0	0	9



Traffic Count Data

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Municipality: Sudbury
Count Date: Aug 30, 2023

West Approach - Montebello St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	3
16:15	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
16:30	1	1	2	0	4	0	0	0	0	0	0	0	0	0	0	0
16:45	2	6	0	0	8	0	0	0	0	0	0	0	0	0	0	0
17:00	3	3	0	0	6	0	0	0	0	0	0	0	0	0	0	0
17:15	1	4	1	0	6	0	0	0	0	0	0	0	0	0	0	0
17:30	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	0
17:45	4	2	2	0	8	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	14	20	5	0	39	0	0	0	0	0	0	0	0	0	0	3
GRAND TOTAL	29	37	13	0	79	1	2	1	0	4	0	0	0	0	0	21



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Peak Hour Diagram

Specified Period

From: 07:00:00
To: 09:00:00

One Hour Peak

From: 07:45:00
To: 08:45:00

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	164	136	300
	4	6	10
	0	1	1
Totals	168	143	311

Mont Adam St

	0	0	0	0
	1	2	1	0
	0	16	148	0
Totals	1	18	149	0

East Approach

	Out	In	Total
	136	152	288
	6	1	7
	1	0	1
Totals	143	153	296

Montebello St

	Totals	
	0	
	0	
	0	
Totals	0	7

Peds: 0



Peds: 2

Cochrane St

	Totals	
	0	
	134	
	5	
Totals	140	0

West Approach

	Out	In	Total
	8	2	10
	1	2	3
	0	0	0
Totals	9	4	13

	0		1		0		0
Totals	0	1	0	0	0	0	0

Mont Adam St

South Approach

	Out	In	Total
	0	18	18
	1	3	4
	0	0	0
Totals	1	21	22

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Count Date: Aug 30, 2023
Period: 07:00 - 09:00

Peak Hour Data (07:45 - 08:45)

Start Time	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Cochrane St						West Approach Montebello St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
07:45	44	5	0	0	0	49	0	0	0	0	0	0	0	1	33	0	0	34	1	0	0	0	1	1	84
08:00	31	1	0	0	0	32	0	0	0	0	1	0	0	0	41	0	0	41	0	2	0	0	3	2	75
08:15	37	6	1	0	0	44	0	0	0	0	0	0	0	1	39	0	0	40	1	1	2	0	2	4	88
08:30	37	6	0	0	0	43	0	1	0	0	1	1	0	1	27	0	0	28	0	1	1	0	1	2	74
Grand Total	149	18	1	0	0	168	0	1	0	0	2	1	0	3	140	0	0	143	2	4	3	0	7	9	321
Approach %	88.7	10.7	0.6	0	-	-	0	100	0	0	-	-	0	2.1	97.9	0	-	-	22.2	44.4	33.3	0	-	-	-
Totals %	46.4	5.6	0.3	0	-	52.3	0	0.3	0	0	0.3	0.3	0	0.9	43.6	0	-	44.5	0.6	1.2	0.9	0	-	2.8	-
PHF	0.85	0.75	0.25	0	-	0.86	0	0.25	0	0	0.25	0.25	0	0.75	0.85	0	-	0.87	0.5	0.5	0.38	0	-	0.56	0.91
Cars	148	16	0	0	-	164	0	0	0	0	-	0	0	2	134	0	-	136	2	4	2	0	-	8	308
% Cars	99.3	88.9	0	0	-	97.6	0	0	0	0	-	0	0	66.7	95.7	0	-	95.1	100	100	66.7	0	-	88.9	96
Trucks	1	2	1	0	-	4	0	1	0	0	-	1	0	1	5	0	-	6	0	0	1	0	-	1	12
% Trucks	0.7	11.1	100	0	-	2.4	0	100	0	0	-	100	0	33.3	3.6	0	-	4.2	0	0	33.3	0	-	11.1	3.7
Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
% Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0.7	0	-	0.7	0	0	0	0	-	0	0.3
Peds	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	7	-	9
% Peds	-	-	-	-	0	-	-	-	-	-	22.2	-	-	-	-	-	0	-	-	-	-	-	77.8	-	-



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Peak Hour Diagram

Specified Period

From: 11:00:00
To: 13:00:00

One Hour Peak

From: 12:00:00
To: 13:00:00

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	185	159	344
	1	1	2
	0	0	0
Totals	186	160	346

Mont Adam St

	0	0	0	0
	0	0	1	0
	6	14	165	0
Totals	6	14	166	0

East Approach

	Out	In	Total
	159	171	330
	1	1	2
	0	0	0
Totals	160	172	332

Montebello St

	Totals	
	0	
	0	
	4	
Totals	6	
Totals	0	

Peds: 0



Peds: 2

Cochrane St

Totals			
0	0	0	0
153	152	1	0
6	6	0	0
1	1	0	0

West Approach

	Out	In	Total
	10	12	22
	0	0	0
	0	0	0
Totals	10	12	22

	0		3		0	0
Totals	0	3	0	0	0	0

Mont Adam St

South Approach

	Out	In	Total
	3	15	18
	0	0	0
	0	0	0
Totals	3	15	18

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Count Date: Aug 30, 2023
Period: 11:00 - 13:00

Peak Hour Data (12:00 - 13:00)

Start Time	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Cochrane St						West Approach Montebello St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
12:00	43	2	3	0	0	48	0	1	0	0	2	1	0	4	39	0	0	43	0	2	0	0	1	2	94
12:15	31	5	0	0	0	36	0	0	0	0	0	0	0	1	40	0	0	41	1	4	0	0	0	5	82
12:30	48	3	3	0	0	54	0	1	0	0	0	1	1	0	35	0	0	36	2	0	0	0	1	2	93
12:45	44	4	0	0	0	48	0	1	0	0	0	1	0	1	39	0	0	40	1	0	0	0	3	1	90
Grand Total	166	14	6	0	0	186	0	3	0	0	2	3	1	6	153	0	0	160	4	6	0	0	5	10	359
Approach %	89.2	7.5	3.2	0		-	0	100	0	0		-	0.6	3.8	95.6	0		-	40	60	0	0		-	
Totals %	46.2	3.9	1.7	0		51.8	0	0.8	0	0		0.8	0.3	1.7	42.6	0		44.6	1.1	1.7	0	0		2.8	
PHF	0.86	0.7	0.5	0		0.86	0	0.75	0	0		0.75	0.25	0.38	0.96	0		0.93	0.5	0.38	0	0		0.5	0.95
Cars	165	14	6	0		185	0	3	0	0		3	1	6	152	0		159	4	6	0	0		10	357
% Cars	99.4	100	100	0		99.5	0	100	0	0		100	100	100	99.3	0		99.4	100	100	0	0		100	99.4
Trucks	1	0	0	0		1	0	0	0	0		0	0	0	1	0		1	0	0	0	0		0	2
% Trucks	0.6	0	0	0		0.5	0	0	0	0		0	0	0	0.7	0		0.6	0	0	0	0		0	0.6
Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
% Bicycles	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0
Peds					0	-					2	-					0	-					5	-	7
% Peds					0	-					28.6	-					0	-					71.4	-	



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Peak Hour Diagram

Specified Period

From: 16:00:00
To: 18:00:00

One Hour Peak

From: 16:30:00
To: 17:30:00

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	239	233	472
	0	3	3
	0	0	0
Totals	239	236	475

Mont Adam St

	0	0	0	0
	0	0	0	0
	6	26	207	0
Totals	6	26	207	0

East Approach

	Out	In	Total
	233	222	455
	3	0	3
	0	0	0
Totals	236	222	458

Montebello St

	Totals	
	0	
	0	
	7	
Totals	14	
	0	
	0	
	3	
Totals	3	

Peds: 0



Peds: 0

Cochrane St

Totals			
0	0	0	0
228	225	3	0
5	5	0	0
3	3	0	0

West Approach

	Out	In	Total
	24	11	35
	0	0	0
	0	0	0
Totals	24	11	35

	0	1	1	0
	0	1	1	0
	0	0	0	0
	0	0	0	0
Totals	0	1	1	0

Mont Adam St

South Approach

	Out	In	Total
	2	32	34
	0	0	0
	0	0	0
Totals	2	32	34

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Montebello St - Cochrane St
Site Code: 2325900002
Count Date: Aug 30, 2023
Period: 16:00 - 18:00

Peak Hour Data (16:30 - 17:30)

Start Time	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Cochrane St						West Approach Montebello St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
16:30	67	6	0	0	0	73	0	0	0	0	0	0	1	2	62	0	0	65	1	1	2	0	0	4	142
16:45	48	11	1	0	0	60	0	0	0	0	0	0	0	0	43	0	0	43	2	6	0	0	0	8	111
17:00	37	4	5	0	0	46	0	1	1	0	0	2	2	3	58	0	0	63	3	3	0	0	0	6	117
17:15	55	5	0	0	0	60	0	0	0	0	0	0	0	0	65	0	0	65	1	4	1	0	0	6	131
Grand Total	207	26	6	0	0	239	0	1	1	0	0	2	3	5	228	0	0	236	7	14	3	0	0	24	501
Approach %	86.6	10.9	2.5	0	-	-	0	50	50	0	-	-	1.3	2.1	96.6	0	-	-	29.2	58.3	12.5	0	-	-	-
Totals %	41.3	5.2	1.2	0	-	47.7	0	0.2	0.2	0	-	0.4	0.6	1	45.5	0	-	47.1	1.4	2.8	0.6	0	-	4.8	-
PHF	0.77	0.59	0.3	0	-	0.82	0	0.25	0.25	0	-	0.25	0.38	0.42	0.88	0	-	0.91	0.58	0.58	0.38	0	-	0.75	0.88
Cars	207	26	6	0	-	239	0	1	1	0	-	2	3	5	225	0	-	233	7	14	3	0	-	24	498
% Cars	100	100	100	0	-	100	0	100	100	0	-	100	100	100	98.7	0	-	98.7	100	100	100	0	-	100	99.4
Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	0	0	-	0	3
% Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1.3	0	-	1.3	0	0	0	0	-	0	0.6
Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
Peds	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	0
% Peds	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-

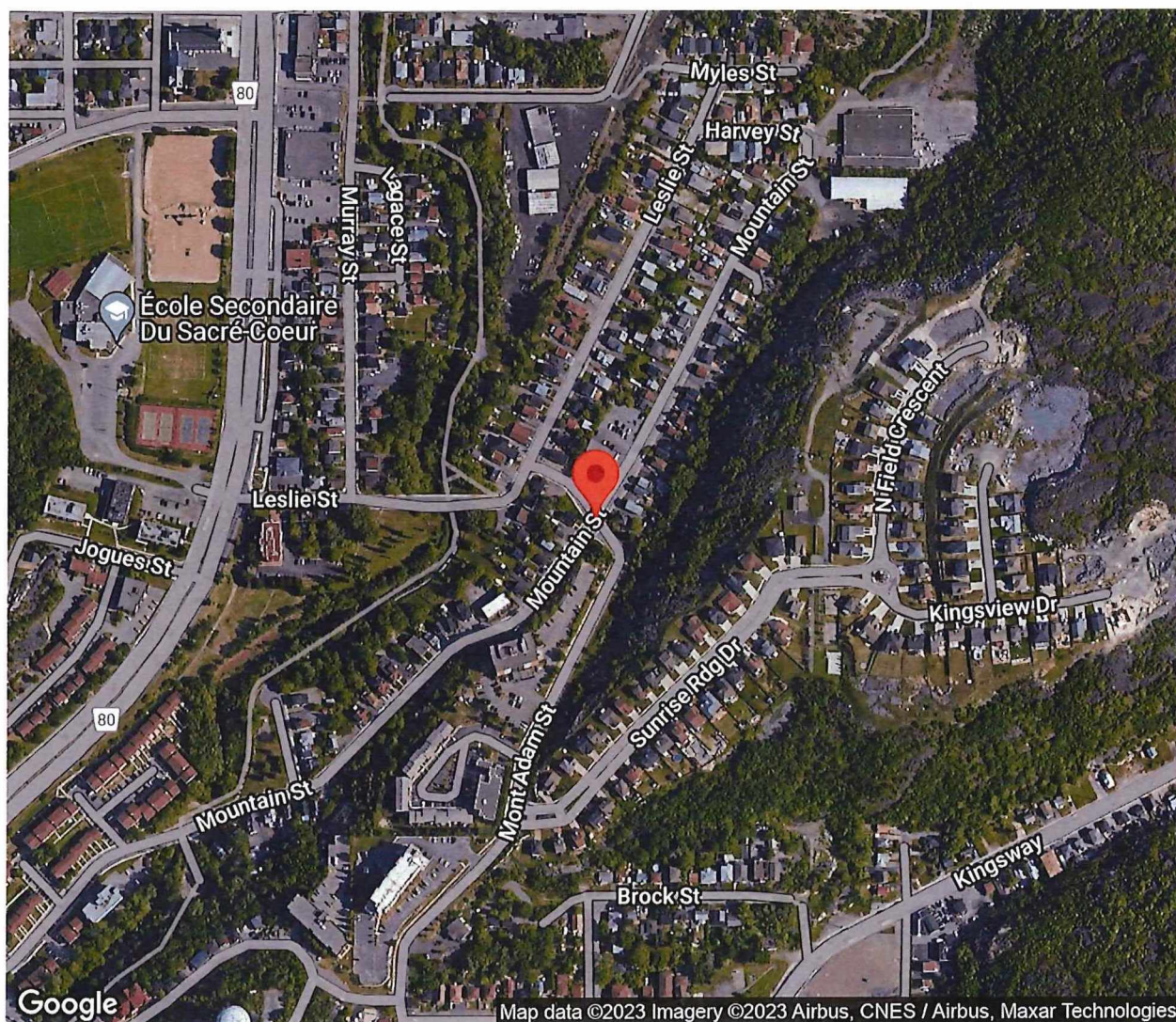
Project #23-259 - CIMA+

Intersection Count Report

Intersection: Mont Adam St & Mountain St
Municipality: Sudbury
Count Date: Wednesday, Aug 30, 2023
Site Code: 2325900003
Count Categories: Cars, Trucks, Bicycles, Pedestrians
Count Period: 07:00-09:00, 11:00-13:00, 16:00-18:00
Weather: Clear
Comments:

Traffic Count Map

Intersection:	Mont Adam St & Mountain St
Site Code:	2325900003
Municipality:	Sudbury
Count Date:	Aug 30, 2023



Traffic Count Summary

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

Mont Adam St - Traffic Summary

North Approach Totals							South Approach Totals						
Includes Cars, Trucks, Bicycles							Includes Cars, Trucks, Bicycles						
Hour	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	Total
07:00 - 08:00	5	105	3	1	114	2	3	80	6	0	89	1	203
08:00 - 09:00	11	121	6	0	138	6	12	110	23	0	145	2	283
BREAK													
11:00 - 12:00	6	134	17	0	157	4	11	143	5	0	159	1	316
12:00 - 13:00	14	159	11	0	184	2	11	142	6	0	159	2	343
BREAK													
16:00 - 17:00	8	172	12	0	192	6	17	153	7	0	177	0	369
17:00 - 18:00	9	161	15	0	185	4	17	171	4	0	192	2	377
GRAND TOTAL	53	852	64	1	970	24	71	799	51	0	921	8	1891

Traffic Count Summary

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

Mountain St - Traffic Summary

East Approach Totals							West Approach Totals							Total
Hour	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles							
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds		
07:00 - 08:00	7	15	4	0	26	0	2	3	8	0	13	3	39	
08:00 - 09:00	2	6	3	0	11	2	8	10	11	0	29	9	40	
BREAK														
11:00 - 12:00	2	6	8	0	16	0	9	8	19	0	36	5	52	
12:00 - 13:00	3	13	10	0	26	0	10	6	19	0	35	8	61	
BREAK														
16:00 - 17:00	11	10	10	0	31	1	16	15	41	0	72	7	103	
17:00 - 18:00	5	4	8	0	17	0	17	7	36	0	60	7	77	
GRAND TOTAL	30	54	43	0	127	3	62	49	134	0	245	39	372	

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	14	1	0	15	0	0	0	0	0	0	0	0	0	0	0
07:15	1	26	0	0	27	0	0	0	0	0	0	0	0	0	0	0
07:30	1	25	1	0	27	0	0	0	0	0	0	0	0	0	0	0
07:45	3	40	1	1	45	0	0	0	0	0	0	0	0	0	0	2
08:00	5	28	1	0	34	0	0	0	0	0	0	0	0	0	0	3
08:15	2	32	1	0	35	0	0	0	0	0	0	0	0	0	0	1
08:30	2	28	2	0	32	1	1	0	0	2	0	0	0	0	0	2
08:45	1	30	1	0	32	0	1	1	0	2	0	1	0	0	1	0
SUBTOTAL	15	223	8	1	247	1	2	1	0	4	0	1	0	0	1	8

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	1	34	7	0	42	0	1	0	0	1	0	0	0	0	0	1
11:15	2	30	4	0	36	0	1	0	0	1	2	0	0	0	2	1
11:30	0	31	3	0	34	0	0	0	0	0	0	0	0	0	0	1
11:45	1	37	3	0	41	0	0	0	0	0	0	0	0	0	0	1
12:00	2	40	4	0	46	0	0	1	0	1	0	0	0	0	0	1
12:15	3	36	1	0	40	0	1	0	0	1	1	0	0	0	1	1
12:30	1	40	3	0	44	0	0	0	0	0	0	0	0	0	0	0
12:45	6	42	2	0	50	1	0	0	0	1	0	0	0	0	0	0
SUBTOTAL	16	290	27	0	333	1	3	1	0	5	3	0	0	0	3	6

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	2	30	3	0	35	0	1	0	0	1	0	0	0	0	0	3
16:15	0	53	2	0	55	0	1	0	0	1	0	0	0	0	0	1
16:30	3	48	3	0	54	0	0	0	0	0	0	0	0	0	0	1
16:45	3	39	3	0	45	0	0	0	0	0	0	0	1	0	1	1
17:00	1	33	2	0	36	0	0	0	0	0	0	0	0	0	0	1
17:15	3	48	5	0	56	0	0	0	0	0	0	0	0	0	0	3
17:30	3	42	1	0	46	0	1	0	0	1	0	0	0	0	0	0
17:45	2	37	7	0	46	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	17	330	26	0	373	0	3	0	0	3	0	0	1	0	1	10
GRAND TOTAL	48	843	61	1	953	2	8	2	0	12	3	1	1	0	5	24

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	13	1	0	14	0	0	0	0	0	0	0	0	0	0	0
07:15	0	12	2	0	14	0	1	0	0	1	0	0	0	0	0	0
07:30	0	19	2	0	21	0	1	1	0	2	0	0	0	0	0	1
07:45	3	32	0	0	35	0	2	0	0	2	0	0	0	0	0	0
08:00	3	32	6	0	41	0	0	0	0	0	0	0	0	0	0	1
08:15	4	30	6	0	40	0	0	0	0	0	0	0	0	0	0	0
08:30	3	21	3	0	27	0	1	1	0	2	0	0	0	0	0	0
08:45	2	26	7	0	35	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	15	185	27	0	227	0	5	2	0	7	0	0	0	0	0	3

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	1	33	0	0	34	0	0	0	0	0	0	0	0	0	0	0
11:15	2	30	1	0	33	0	1	0	0	1	0	0	0	0	0	0
11:30	5	42	1	0	48	0	1	0	0	1	0	0	0	0	0	0
11:45	3	36	3	0	42	0	0	0	0	0	0	0	0	0	0	1
12:00	2	34	1	0	37	0	0	0	0	0	0	0	0	0	0	0
12:15	2	40	1	0	43	0	0	0	0	0	0	0	0	0	0	0
12:30	5	28	3	0	36	0	1	0	0	1	0	0	0	0	0	0
12:45	2	39	1	0	42	0	0	0	0	0	0	0	0	0	0	2
SUBTOTAL	22	282	11	0	315	0	3	0	0	3	0	0	0	0	0	3

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

South Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	3	34	1	0	38	0	1	0	0	1	0	0	0	0	0	0
16:15	4	26	0	0	30	0	1	0	0	1	0	0	0	0	0	0
16:30	7	46	4	0	57	0	4	0	0	4	0	0	0	0	0	0
16:45	3	41	2	0	46	0	0	0	0	0	0	0	0	0	0	0
17:00	3	52	1	0	56	0	0	0	0	0	0	0	0	0	0	2
17:15	4	50	2	0	56	0	0	0	0	0	0	0	0	0	0	0
17:30	4	37	1	0	42	0	1	0	0	1	0	1	0	0	1	0
17:45	6	30	0	0	36	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	34	316	11	0	361	0	7	0	0	7	0	1	0	0	1	2
GRAND TOTAL	71	783	49	0	903	0	15	2	0	17	0	1	0	0	1	8

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Mountain St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0
07:15	2	1	1	0	4	1	0	0	0	1	0	0	0	0	0	0
07:30	3	8	0	0	11	0	0	0	0	0	0	2	0	0	2	0
07:45	1	1	1	0	3	0	0	1	0	1	0	2	0	0	2	0
08:00	1	1	1	0	3	0	0	0	0	0	0	0	0	0	0	1
08:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30	1	4	0	0	5	0	1	1	0	2	0	0	0	0	0	1
08:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	8	16	5	0	29	1	1	2	0	4	0	4	0	0	4	2

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Mountain St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0
11:15	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
11:30	1	2	6	0	9	0	0	0	0	0	0	0	0	0	0	0
11:45	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0
12:00	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0
12:15	0	1	1	0	2	0	1	0	0	1	0	0	0	0	0	0
12:30	1	1	4	0	6	0	0	0	0	0	0	3	0	0	3	0
12:45	2	2	4	0	8	0	1	0	0	1	0	1	0	0	1	0
SUBTOTAL	5	13	18	0	36	0	2	0	0	2	0	4	0	0	4	0

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Mountain St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	4	3	2	0	9	0	0	0	0	0	0	0	0	0	0	0
16:15	0	2	3	0	5	0	0	0	0	0	0	0	0	0	0	1
16:30	4	3	3	0	10	0	0	0	0	0	0	0	0	0	0	0
16:45	3	2	2	0	7	0	0	0	0	0	0	0	0	0	0	0
17:00	0	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0
17:15	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0
17:30	3	0	1	0	4	0	0	0	0	0	0	0	4	0	4	0
17:45	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	16	14	14	0	44	0	0	0	0	0	0	0	4	0	4	1
GRAND TOTAL	29	43	37	0	109	1	3	2	0	6	0	8	4	0	12	3

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

West Approach - Mountain St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	3	0	3	0	0	0	0	0	0	1	0	0	1	0
07:30	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
07:45	2	0	3	0	5	0	0	0	0	0	0	0	0	0	0	1
08:00	2	3	2	0	7	0	1	0	0	1	0	0	0	0	0	5
08:15	1	2	3	0	6	0	0	0	0	0	0	0	0	0	0	2
08:30	2	0	2	0	4	0	0	0	0	0	0	1	0	0	1	1
08:45	3	3	4	0	10	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	10	10	19	0	39	0	1	0	0	1	0	2	0	0	2	12

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

West Approach - Mountain St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	2	3	4	0	9	0	0	0	0	0	0	0	0	0	0	0
11:15	2	0	6	0	8	0	1	0	0	1	0	0	0	0	0	2
11:30	3	1	3	0	7	0	1	0	0	1	0	1	0	0	1	3
11:45	2	1	6	0	9	0	0	0	0	0	0	0	0	0	0	0
12:00	4	1	5	0	10	0	0	0	0	0	0	1	0	0	1	0
12:15	1	1	2	0	4	0	0	0	0	0	0	1	0	0	1	0
12:30	3	0	8	0	11	0	0	0	0	0	0	0	0	0	0	6
12:45	1	2	3	0	6	1	0	1	0	2	0	0	0	0	0	2
SUBTOTAL	18	9	37	0	64	1	2	1	0	4	0	3	0	0	3	13

Traffic Count Data

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Municipality: Sudbury
Count Date: Aug 30, 2023

West Approach - Mountain St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	4	5	7	0	16	0	0	0	0	0	0	1	0	0	1	3
16:15	3	1	11	0	15	0	0	0	0	0	0	1	0	0	1	0
16:30	6	4	12	0	22	0	0	0	0	0	0	1	0	0	1	3
16:45	3	2	11	0	16	0	0	0	0	0	0	0	0	0	0	1
17:00	4	4	15	0	23	0	0	0	0	0	0	0	0	0	0	2
17:15	1	0	9	0	10	0	0	0	0	0	0	0	0	0	0	1
17:30	4	2	7	0	13	0	0	0	0	0	0	0	0	0	0	3
17:45	8	0	5	0	13	0	0	0	0	0	0	1	0	0	1	1
SUBTOTAL	33	18	77	0	128	0	0	0	0	0	0	4	0	0	4	14
GRAND TOTAL	61	37	133	0	231	1	3	1	0	5	0	9	0	0	9	39



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Peak Hour Diagram

Specified Period

From: 07:00:00
To: 09:00:00

One Hour Peak

From: 07:45:00
To: 08:45:00

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	146	125	271
	2	5	7
	0	0	0
Totals	148	130	278

Mont Adam St

	0	0	0	0
	0	1	1	0
	5	128	12	1
Totals	5	129	13	1

East Approach

	Out	In	Total
	11	32	43
	3	3	6
	2	1	3
Totals	16	36	52

Mountain St

				Totals	
0	0	0	0	0	
0	0	7	7	7	
1	1	5	7	7	
0	0	10	10	10	

Peds: 8

Peds: 9



Peds: 2

Mountain St

Totals			
0	0	0	0
4	2	2	0
9	6	1	2
3	3	0	0

Peds: 1

West Approach

	Out	In	Total
	22	24	46
	1	1	2
	1	2	3
Totals	24	27	51

				
Totals	13	118	16	0
	13	115	15	0
	0	3	1	0
	0	0	0	0

Mont Adam St

South Approach

	Out	In	Total
	143	141	284
	4	1	5
	0	0	0
Totals	147	142	289

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Count Date: Aug 30, 2023
Period: 07:00 - 09:00

Peak Hour Data (07:45 - 08:45)

Start Time	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Mountain St						West Approach Mountain St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
07:45	3	40	1	1	2	45	3	34	0	0	0	37	1	3	2	0	0	6	2	0	3	0	1	5	93
08:00	5	28	1	0	3	34	3	32	6	0	1	41	1	1	1	0	1	3	2	4	2	0	5	8	86
08:15	2	32	1	0	1	35	4	30	6	0	0	40	0	0	0	0	0	0	1	2	3	0	2	6	81
08:30	3	29	2	0	2	34	3	22	4	0	0	29	1	5	1	0	1	7	2	1	2	0	1	5	75
Grand Total	13	129	5	1	8	148	13	118	16	0	1	147	3	9	4	0	2	16	7	7	10	0	9	24	335
Approach %	8.8	87.2	3.4	0.7	-	-	8.8	80.3	10.9	0	-	-	18.8	56.3	25	0	-	-	29.2	29.2	41.7	0	-	-	-
Totals %	3.9	38.5	1.5	0.3	-	44.2	3.9	35.2	4.8	0	-	43.9	0.9	2.7	1.2	0	-	4.8	2.1	2.1	3	0	-	7.2	-
PHF	0.65	0.81	0.63	0.25	-	0.82	0.81	0.87	0.67	0	-	0.9	0.75	0.45	0.5	0	-	0.57	0.88	0.44	0.83	0	-	0.75	0.9
Cars	12	128	5	1	-	146	13	115	15	0	-	143	3	6	2	0	-	11	7	5	10	0	-	22	322
% Cars	92.3	99.2	100	100	-	98.6	100	97.5	93.8	0	-	97.3	100	66.7	50	0	-	68.8	100	71.4	100	0	-	91.7	96.1
Trucks	1	1	0	0	-	2	0	3	1	0	-	4	0	1	2	0	-	3	0	1	0	0	-	1	10
% Trucks	7.7	0.8	0	0	-	1.4	0	2.5	6.3	0	-	2.7	0	11.1	50	0	-	18.8	0	14.3	0	0	-	4.2	3
Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	2	0	0	-	2	0	1	0	0	-	1	3
% Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	22.2	0	0	-	12.5	0	14.3	0	0	-	4.2	0.9
Peds	-	-	-	-	8	-	-	-	-	1	-	-	-	-	-	-	2	-	-	-	-	-	9	-	20
% Peds	-	-	-	-	40	-	-	-	-	5	-	-	-	-	-	-	10	-	-	-	-	-	45	-	-



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Peak Hour Diagram

Specified Period

From: 11:00:00
To: 13:00:00

One Hour Peak

From: 12:00:00
To: 13:00:00

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	180	160	340
	3	2	5
	1	0	1
Totals	184	162	346

Mont Adam St

	0	0	1	0
	1	1	1	0
	10	158	12	0
Totals	11	159	14	0

East Approach

	Out	In	Total
	20	22	42
	2	1	3
	4	3	7
Totals	26	26	52

Mountain St

	Out	In	Total
	0	0	0
	0	1	9
	2	0	4
	0	1	18
Totals	0	10	6

Peds: 2

Peds: 8



Peds: 0

Mountain St

	Out	In	Total
	0	0	0
	10	10	0
	13	7	2
	3	3	0
Totals	0	10	13

Peds: 2

West Approach

	Out	In	Total
	31	28	59
	2	3	5
	2	4	6
Totals	35	35	70

	11	142	6	0
	11	141	6	0
	0	1	0	0
	0	0	0	0
Totals	11	142	6	0

Mont Adam St

South Approach

	Out	In	Total
	158	179	337
	1	2	3
	0	0	0
Totals	159	181	340

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Count Date: Aug 30, 2023
Period: 11:00 - 13:00

Peak Hour Data (12:00 - 13:00)

Start Time	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Mountain St						West Approach Mountain St						Total Vehicles
	←	↑	→	↺	Peds	Total	←	↑	→	↺	Peds	Total	←	↑	→	↺	Peds	Total	←	↑	→	↺	Peds	Total	
12:00	2	40	5	0	1	47	2	34	1	0	0	37	0	3	1	0	0	4	4	2	5	0	0	11	99
12:15	4	37	1	0	1	42	2	40	1	0	0	43	0	2	1	0	0	3	1	2	2	0	0	5	93
12:30	1	40	3	0	0	44	5	29	3	0	0	37	1	4	4	0	0	9	3	0	8	0	6	11	101
12:45	7	42	2	0	0	51	2	39	1	0	2	42	2	4	4	0	0	10	2	2	4	0	2	8	111
Grand Total	14	159	11	0	2	184	11	142	6	0	2	159	3	13	10	0	0	26	10	6	19	0	8	35	404
Approach %	7.6	86.4	6	0	-	-	6.9	89.3	3.8	0	-	-	11.5	50	38.5	0	-	-	28.6	17.1	54.3	0	-	-	-
Totals %	3.5	39.4	2.7	0	-	45.5	2.7	35.1	1.5	0	-	39.4	0.7	3.2	2.5	0	-	6.4	2.5	1.5	4.7	0	-	8.7	-
PHF	0.5	0.95	0.55	0	0	0.9	0.55	0.89	0.5	0	0	0.92	0.38	0.81	0.63	0	0	0.65	0.63	0.75	0.59	0	0	0.8	0.91
Cars	12	158	10	0	-	180	11	141	6	0	-	158	3	7	10	0	-	20	9	4	18	0	-	31	389
% Cars	85.7	99.4	90.9	0	-	97.8	100	99.3	100	0	-	99.4	100	53.8	100	0	-	76.9	90	66.7	94.7	0	-	88.6	96.3
Trucks	1	1	1	0	-	3	0	1	0	0	-	1	0	2	0	0	-	2	1	0	1	0	-	2	8
% Trucks	7.1	0.6	9.1	0	-	1.6	0	0.7	0	0	-	0.6	0	15.4	0	0	-	7.7	10	0	5.3	0	-	5.7	2
Bicycles	1	0	0	0	-	1	0	0	0	0	-	0	0	4	0	0	-	4	0	2	0	0	-	2	7
% Bicycles	7.1	0	0	0	-	0.5	0	0	0	0	-	0	0	30.8	0	0	-	15.4	0	33.3	0	0	-	5.7	1.7
Peds	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	8	-	12
% Peds	-	-	-	-	16.7	-	-	-	-	-	16.7	-	-	-	-	-	0	-	-	-	-	-	66.7	-	-



Ontario Traffic Inc.

Traffic Monitoring • Services & Products

Peak Hour Diagram

Specified Period

From: 16:00:00

To: 18:00:00

One Hour Peak

From: 16:30:00

To: 17:30:00

Intersection: Mont Adam St & Mountain St

Site Code: 2325900003

Count Date: Aug 30, 2023

Weather conditions:

Clear

**** Unsignalized Intersection ****

Major Road: Mont Adam St runs N/S

North Approach

	Out	In	Total
	191	211	402
	0	4	4
	1	0	1
Totals	192	215	407

Mont Adam St

	1	0	0	0
	0	0	0	0
	13	168	10	0
Totals	14	168	10	0

East Approach

	Out	In	Total
	23	29	52
	0	0	0
	0	1	1
Totals	23	30	53

Mountain St

	Totals	
	0	
	0	
	14	
	1	
	10	
	47	
Totals	47	

Peds: 6



Peds: 7

Peds: 0

Mountain St

Totals			
0	0	0	0
8	8	0	0
8	8	0	0
7	7	0	0

Peds: 2

West Approach

	Out	In	Total
	71	38	109
	0	0	0
	1	1	2
Totals	72	39	111

	17		193		9		0
	17	189	9	0			
	0	4	0	0			
	0	0	0	0			

Mont Adam St

South Approach

	Out	In	Total
	215	222	437
	4	0	4
	0	0	0
Totals	219	222	441

- Cars

- Trucks

- Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Mountain St
Site Code: 2325900003
Count Date: Aug 30, 2023
Period: 16:00 - 18:00

Peak Hour Data (16:30 - 17:30)

Start Time	North Approach Mont Adam St						South Approach Mont Adam St						East Approach Mountain St						West Approach Mountain St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
16:30	3	48	3	0	1	54	7	50	4	0	0	61	4	3	3	0	0	10	6	5	12	0	3	23	148
16:45	3	39	4	0	1	46	3	41	2	0	0	46	3	2	2	0	0	7	3	2	11	0	1	16	115
17:00	1	33	2	0	1	36	3	52	1	0	2	56	0	2	1	0	0	3	4	4	15	0	2	23	118
17:15	3	48	5	0	3	56	4	50	2	0	0	56	0	1	2	0	0	3	1	0	9	0	1	10	125
Grand Total	10	168	14	0	6	192	17	193	9	0	2	219	7	8	8	0	0	23	14	11	47	0	7	72	506
Approach %	5.2	87.5	7.3	0	-	-	7.8	88.1	4.1	0	-	-	30.4	34.8	34.8	0	-	-	19.4	15.3	65.3	0	-	-	-
Totals %	2	33.2	2.8	0	-	37.9	3.4	38.1	1.8	0	-	43.3	1.4	1.6	1.6	0	-	4.5	2.8	2.2	9.3	0	-	14.2	-
PHF	0.83	0.88	0.7	0	-	0.86	0.61	0.93	0.56	0	-	0.9	0.44	0.67	0.67	0	-	0.58	0.58	0.55	0.78	0	-	0.78	0.85
Cars	10	168	13	0	-	191	17	189	9	0	-	215	7	8	8	0	-	23	14	10	47	0	-	71	500
% Cars	100	100	92.9	0	-	99.5	100	97.9	100	0	-	98.2	100	100	100	0	-	100	100	90.9	100	0	-	98.6	98.8
Trucks	0	0	0	0	-	0	0	4	0	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	4
% Trucks	0	0	0	0	-	0	0	2.1	0	0	-	1.8	0	0	0	0	-	0	0	0	0	0	-	0	0.8
Bicycles	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	2
% Bicycles	0	0	7.1	0	-	0.5	0	0	0	0	-	0	0	0	0	0	-	0	0	9.1	0	0	-	1.4	0.4
Peds	-	-	-	-	6	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	7	-	15
% Peds	-	-	-	-	40	-	-	-	-	-	13.3	-	-	-	-	-	0	-	-	-	-	-	46.7	-	-

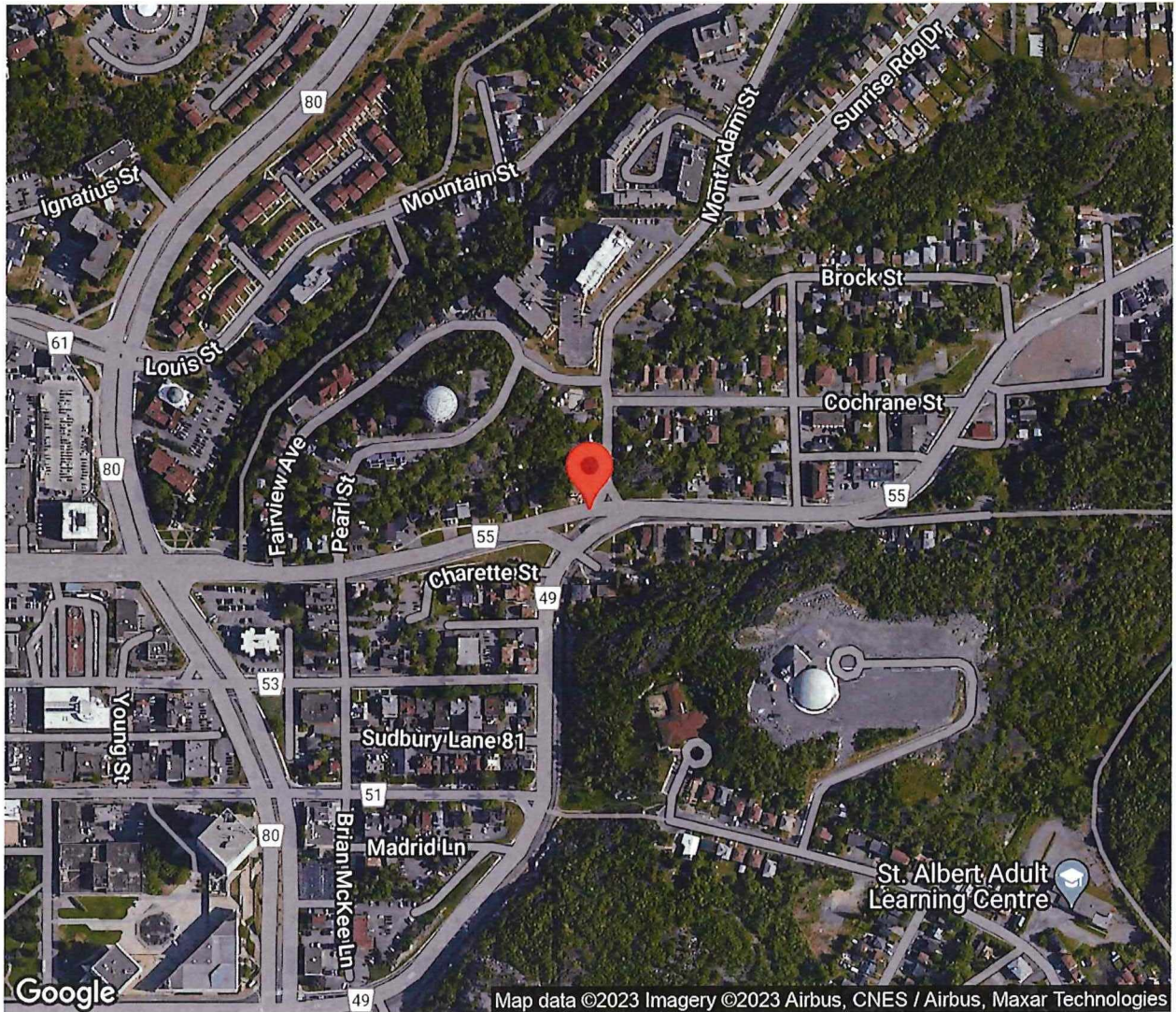
Project #23-259 - CIMA+

Intersection Count Report

Intersection: Mont Adam St & Lloyd St
Municipality: Sudbury
Count Date: Wednesday, Aug 30, 2023
Site Code: 2325900004
Count Categories: Cars, Trucks, Bicycles, Pedestrians
Count Period: 07:00-09:00, 11:00-13:00, 16:00-18:00
Weather: Clear
Comments:

Traffic Count Map

Intersection:	Mont Adam St & Lloyd St
Site Code:	2325900004
Municipality:	Sudbury
Count Date:	Aug 30, 2023



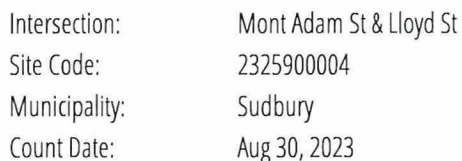


Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach Totals

South Approach Totals

Hour	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						Total
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	
07:00 - 08:00	0	0	25	0	25	4	0	0	0	0	0	0	25
08:00 - 09:00	0	0	23	0	23	5	0	0	0	0	0	0	23
BREAK													
11:00 - 12:00	0	0	23	0	23	4	0	0	0	0	0	0	23
12:00 - 13:00	0	0	15	0	15	2	0	0	0	0	0	0	15
BREAK													
16:00 - 17:00	0	0	33	0	33	0	0	0	0	0	0	0	33
17:00 - 18:00	0	0	23	0	23	5	0	0	0	0	0	0	23
GRAND TOTAL	0	0	142	0	142	20	0	0	0	0	0	0	142

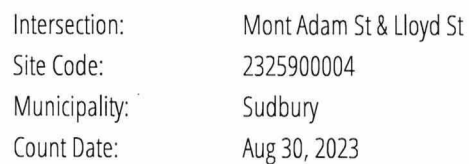


Traffic Count Data

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	5	0	5	0	0	1	0	1	0	0	0	0	0	0
07:30	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	1
07:45	0	0	4	0	4	0	0	1	0	1	0	0	0	0	0	3
08:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
08:15	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	2
08:30	0	0	6	0	6	0	0	2	0	2	0	0	0	0	0	1
08:45	0	0	7	0	7	0	0	0	0	0	0	0	0	0	0	1
SUBTOTAL	0	0	44	0	44	0	0	4	0	4	0	0	0	0	0	9



Traffic Count Data

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Municipality: Sudbury
Count Date: Aug 30, 2023

North Approach - Mont Adam St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	8	0	8	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0
17:00	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0
17:15	0	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	3
17:45	0	0	6	0	6	0	0	0	0	0	0	0	0	0	0	2
SUBTOTAL	0	0	56	0	56	0	0	0	0	0	0	0	0	0	0	5
GRAND TOTAL	0	0	138	0	138	0	0	4	0	4	0	0	0	0	0	20

Traffic Count Data

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Lloyd St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
07:00	0	43	0	0	43	0	1	0	0	1	0	0	0	0	0	0
07:15	0	56	0	0	56	0	2	0	0	2	0	0	0	0	0	0
07:30	0	59	0	0	59	0	5	1	0	6	0	0	0	0	0	2
07:45	0	77	0	0	77	0	8	0	0	8	0	0	0	0	0	0
08:00	0	75	0	0	75	0	1	0	0	1	0	0	0	0	0	0
08:15	0	84	0	0	84	0	2	0	0	2	0	0	0	0	0	0
08:30	0	79	0	0	79	0	2	1	0	3	0	0	0	0	0	0
08:45	0	90	0	0	90	0	7	0	0	7	0	0	0	0	0	0
SUBTOTAL	0	563	0	0	563	0	28	2	0	30	0	0	0	0	0	2

Traffic Count Data

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Lloyd St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
11:00	0	48	1	0	49	0	6	0	0	6	0	0	0	0	0	0
11:15	0	74	0	0	74	0	3	0	0	3	0	0	0	0	0	0
11:30	0	77	0	0	77	0	1	0	0	1	0	0	0	0	0	0
11:45	0	80	0	0	80	0	3	0	0	3	0	0	0	0	0	0
12:00	0	76	1	0	77	0	6	0	0	6	0	0	0	0	0	0
12:15	0	82	0	0	82	0	2	0	0	2	0	0	0	0	0	0
12:30	0	52	1	0	53	0	4	0	0	4	0	0	0	0	0	0
12:45	0	92	1	0	93	0	1	0	0	1	0	0	0	0	0	0
SUBTOTAL	0	581	4	0	585	0	26	0	0	26	0	0	0	0	0	0

Traffic Count Data

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Municipality: Sudbury
Count Date: Aug 30, 2023

East Approach - Lloyd St

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	0	110	0	0	110	0	4	0	0	4	0	0	0	0	0	0
16:15	0	122	0	0	122	0	2	0	0	2	0	0	0	0	0	0
16:30	0	103	0	0	103	0	2	0	0	2	0	0	0	0	0	0
16:45	0	101	0	0	101	0	5	0	0	5	0	0	0	0	0	0
17:00	0	107	0	0	107	0	1	0	0	1	0	0	0	0	0	0
17:15	0	108	0	0	108	0	3	0	0	3	0	0	0	0	0	0
17:30	0	90	2	0	92	0	0	0	0	0	0	0	0	0	0	0
17:45	0	98	0	0	98	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	0	839	2	0	841	0	17	0	0	17	0	0	0	0	0	0
GRAND TOTAL	0	1983	6	0	1989	0	71	2	0	73	0	0	0	0	0	2

[illegible]

	Cars						Trucks						Bicycles						
Start Time					Total						Total						Total	Total Peds	
11:00	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
11:15	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
11:30	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
11:45	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
12:00	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
12:15	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
12:30	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
12:45	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	
SUBTOTAL	0	0	0	0	0		0	0	0	0	0		0	0	0	0	0	0	

	Cars					Trucks					Bicycles						
Start Time					Total					Total					Total	Total Peds	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
SUBTOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
GRAND TOTAL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Peak Hour Diagram

Specified Period

From: 07:00:00
To: 09:00:00

One Hour Peak

From: 08:00:00
To: 09:00:00

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Lloyd St runs E/W

North Approach

	Out	In	Total
	21	0	21
	2	1	3
	0	0	0
Totals	23	1	24

Mont Adam St

	0	0	0
	2	0	0
	21	0	0
Totals	23	0	0

East Approach

	Out	In	Total
	328	0	328
	13	0	13
	0	0	0
Totals	341	0	341

Lloyd St

				Totals
	0	0	0	0
	0	0	0	0
	0	0	0	0

Peds: 5



Peds: 0

Peds: 0

Peds: 0

Lloyd St

Totals			
0	0	0	0
1	0	1	0
340	328	12	0

West Approach

	Out	In	Total
	0	349	349
	0	14	14
	0	0	0
Totals	0	363	363

 - Cars

 - Trucks

 - Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Count Date: Aug 30, 2023
Period: 07:00 - 09:00

Peak Hour Data (08:00 - 09:00)

	North Approach Mont Adam St						South Approach						East Approach Lloyd St						West Approach Lloyd St						Total Vehicl es	
Start Time					Peds	Total					Peds	Total					Peds	Total					Peds	Total		
08:00	0		1	0	1	1					0			76	0	0	0	0	76	0	0		0	0	0	77
08:15	0		7	0	2	7					0			86	0	0	0	0	86	0	0		0	0	0	93
08:30	0		8	0	1	8					0			81	1	0	0	0	82	0	0		0	0	0	90
08:45	0		7	0	1	7					0			97	0	0	0	0	97	0	0		0	0	0	104
Grand Total	0		23	0	5	23					0	0		340	1	0	0	341		0	0		0	0	0	364
Approach %	0		100	0		-					-			99.7	0.3	0		-		0	0		0		-	
Totals %	0		6.3	0		6.3					0			93.4	0.3	0		93.7		0	0		0		0	
PHF	0		0.72	0		0.72					0			0.88	0.25	0		0.88		0	0		0		0	0.88
Cars	0		21	0		21					0			328	0	0		328		0	0		0		0	349
% Cars	0		91.3	0		91.3					0			96.5	0	0		96.2		0	0		0		0	95.9
Trucks	0		2	0		2					0			12	1	0		13		0	0		0		0	15
% Trucks	0		8.7	0		8.7					0			3.5	100	0		3.8		0	0		0		0	4.1
Bicycles	0		0	0		0					0			0	0	0		0		0	0		0		0	0
% Bicycles	0		0	0		0					0			0	0	0		0		0	0		0		0	0
Peds					5	-					0	-					0	-					0	-		5
% Peds					100	-					0	-					0	-					0	-		-

Peak Hour Diagram

Specified Period

From: 11:00:00
To: 13:00:00

One Hour Peak

From: 11:30:00
To: 12:30:00

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Lloyd St runs E/W

North Approach

	Out	In	Total
	17	1	18
	0	0	0
	0	0	0
Totals	17	1	18

Mont Adam St

	0	0	0
	0	0	0
	17	0	0
Totals	17	0	0

East Approach

	Out	In	Total
	316	0	316
	12	0	12
	0	0	0
Totals	328	0	328

Lloyd St

				Totals
	0	0	0	0
	0	0	0	0
	0	0	0	0

Peds: 4



Peds: 0

Peds: 0

Peds: 0

Lloyd St

Totals			
0	0	0	0
1	1	0	0
327	315	12	0

West Approach

	Out	In	Total
	0	332	332
	0	12	12
	0	0	0
Totals	0	344	344

 - Cars

 - Trucks

 - Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Count Date: Aug 30, 2023
Period: 11:00 - 13:00

Peak Hour Data (11:30 - 12:30)

Start Time	North Approach Mont Adam St						South Approach						East Approach Lloyd St						West Approach Lloyd St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
11:30	0		6	0	0	6					0			78	0	0	0	78	0	0		0	0	0	84
11:45	0		4	0	2	4					0			83	0	0	0	83	0	0		0	0	0	87
12:00	0		2	0	1	2					0			82	1	0	0	83	0	0		0	0	0	85
12:15	0		5	0	1	5					0			84	0	0	0	84	0	0		0	0	0	89
Grand Total	0		17	0	4	17					0	0		327	1	0	0	328	0	0		0	0	0	345
Approach %	0		100	0	-	-					-	-		99.7	0.3	0	-	-	0	0		0	-	-	
Totals %	0		4.9	0	4.9						0			94.8	0.3	0	95.1		0	0		0	0		
PHF	0		0.71	0	0.71						0			0.97	0.25	0	0.98		0	0		0	0	0.97	
Cars	0		17	0		17					0			315	1	0		316	0	0		0		0	333
% Cars	0		100	0		100					0			96.3	100	0		96.3	0	0		0		0	96.5
Trucks	0		0	0		0					0			12	0	0		12	0	0		0		0	12
% Trucks	0		0	0		0					0			3.7	0	0		3.7	0	0		0		0	3.5
Bicycles	0		0	0		0					0			0	0	0		0	0	0		0		0	0
% Bicycles	0		0	0		0					0			0	0	0		0	0	0		0		0	0
Peds					4	-					0	-					0	-				0	-	-	4
% Peds					100	-					0	-					0	-				0	-	-	

Peak Hour Diagram

Specified Period

From: 16:00:00
To: 18:00:00

One Hour Peak

From: 16:00:00
To: 17:00:00

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Count Date: Aug 30, 2023

Weather conditions: Clear

**** Unsignalized Intersection ****

Major Road: Lloyd St runs E/W

North Approach

	Out	In	Total
	33	0	33
	0	0	0
	0	0	0
Totals	33	0	33

Mont Adam St

	0	0	0
	0	0	0
	33	0	0
Totals	33	0	0

East Approach

	Out	In	Total
	436	0	436
	13	0	13
	0	0	0
Totals	449	0	449

Lloyd St

				Totals
	0	0	0	0
	0	0	0	0
	0	0	0	0

Peds: 0



Peds: 0

Peds: 0

Peds: 0

Lloyd St

Totals			
0	0	0	0
0	0	0	0
449	436	13	0

West Approach

	Out	In	Total
	0	469	469
	0	13	13
	0	0	0
Totals	0	482	482

 - Cars

 - Trucks

 - Bicycles

Comments

Peak Hour Summary

Intersection: Mont Adam St & Lloyd St
Site Code: 2325900004
Count Date: Aug 30, 2023
Period: 16:00 - 18:00

Peak Hour Data (16:00 - 17:00)

Start Time	North Approach Mont Adam St						South Approach						East Approach Lloyd St						West Approach Lloyd St						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
16:00	0		5	0	0	5					0			114	0	0	0	114	0	0		0	0	0	119
16:15	0		8	0	0	8					0			124	0	0	0	124	0	0		0	0	0	132
16:30	0		8	0	0	8					0			105	0	0	0	105	0	0		0	0	0	113
16:45	0		12	0	0	12					0			106	0	0	0	106	0	0		0	0	0	118
Grand Total	0		33	0	0	33					0	0		449	0	0	0	449	0	0		0	0	0	482
Approach %	0		100	0		-					-			100	0	0		-	0	0		0		-	
Totals %	0		6.8	0		6.8					0			93.2	0	0		93.2	0	0		0		0	
PHF	0		0.69	0		0.69					0			0.91	0	0		0.91	0	0		0		0	0.91
Cars	0		33	0		33					0			436	0	0		436	0	0		0		0	469
% Cars	0		100	0		100					0			97.1	0	0		97.1	0	0		0		0	97.3
Trucks	0		0	0		0					0			13	0	0		13	0	0		0		0	13
% Trucks	0		0	0		0					0			2.9	0	0		2.9	0	0		0		0	2.7
Bicycles	0		0	0		0					0			0	0	0		0	0	0		0		0	0
% Bicycles	0		0	0		0					0			0	0	0		0	0	0		0		0	0
Peds					0	-					0	-					0	-				0	-	0	0
% Peds					0	-					0	-					0	-				0	-	0	0

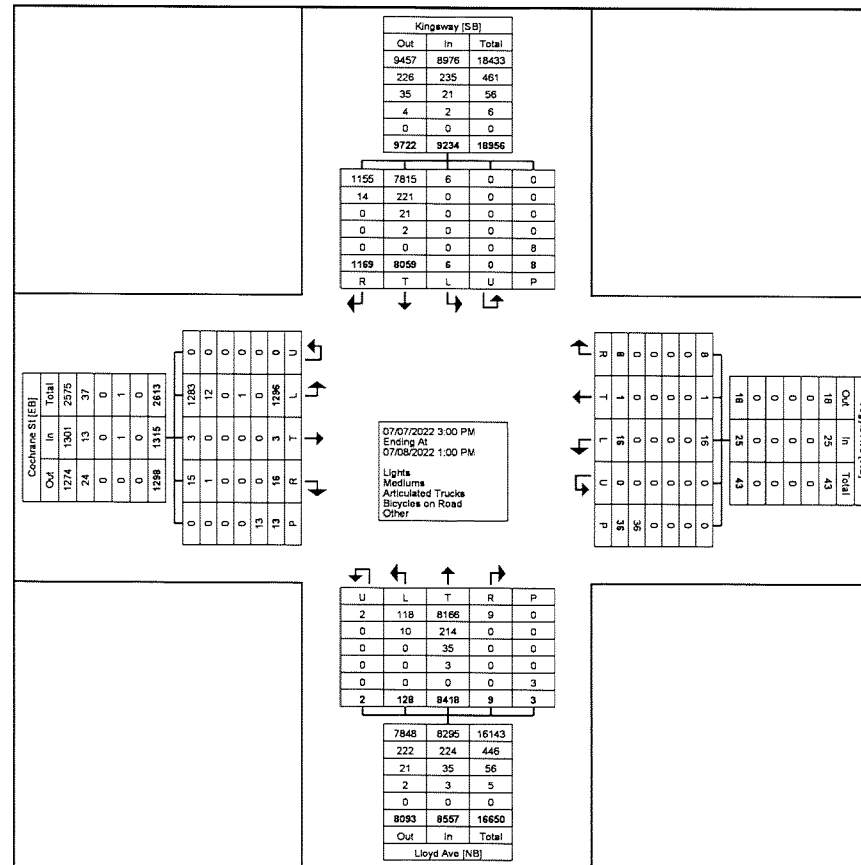
Count Name: Cochrane St @ Kingsway
Site Code: 01023103
Start Date: 07/07/2022
Page No: 1

Start Time	Kingsway Southbound						Argyle Ave Westbound						Lloyd Ave Northbound						Cochrane St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
3:00 PM	53	317	0	0	0	370	1	0	0	0	1	1	1	329	6	0	1	336	1	0	47	0	0	48	755
3:15 PM	46	247	0	0	0	293	1	0	0	0	0	1	0	302	5	0	0	307	1	0	50	0	0	51	652
3:30 PM	44	286	0	0	0	330	0	0	1	0	0	1	1	326	8	0	1	335	2	0	52	0	0	54	720
3:45 PM	51	300	0	0	0	351	0	0	0	0	1	0	0	327	4	0	1	331	0	2	49	0	1	51	733
Hourly Total	194	1150	0	0	0	1344	2	0	1	0	2	3	2	1284	23	0	3	1309	4	2	198	0	1	204	2860
4:00 PM	57	324	0	0	0	381	0	0	0	0	0	0	0	378	7	0	0	385	0	0	51	0	0	51	817
4:15 PM	50	310	0	0	2	360	0	0	1	0	3	1	1	354	5	0	0	360	0	0	53	0	0	53	774
4:30 PM	45	333	0	0	2	378	0	0	1	0	1	1	0	416	7	0	0	423	0	0	70	0	1	70	872
4:45 PM	36	304	0	0	0	340	0	0	0	0	3	0	0	373	8	0	0	381	2	0	44	0	0	46	767
Hourly Total	188	1271	0	0	4	1459	0	0	2	0	7	2	1	1521	27	0	0	1549	2	0	218	0	1	220	3230
5:00 PM	59	339	0	0	0	398	0	0	1	0	0	1	1	349	4	0	0	354	2	0	54	0	0	56	809
5:15 PM	45	308	0	0	0	353	1	0	0	0	1	1	0	345	6	0	0	351	0	0	51	0	0	51	756
5:30 PM	55	295	1	0	0	351	2	0	1	0	3	3	1	293	6	0	0	300	0	0	45	0	0	45	699
5:45 PM	50	288	0	0	0	338	0	0	1	0	4	1	1	295	1	0	0	297	0	0	43	0	0	43	679
Hourly Total	209	1230	1	0	0	1440	3	0	3	0	8	6	3	1282	17	0	0	1302	2	0	193	0	0	195	2943
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00 AM	3	79	0	0	0	82	0	0	0	0	0	0	0	59	0	0	0	59	0	0	17	0	0	17	158
6:15 AM	20	123	0	0	0	143	0	0	0	0	0	0	0	96	0	0	0	96	0	0	14	0	0	14	253
6:30 AM	7	137	0	0	0	144	0	0	0	0	0	0	0	121	1	0	0	122	0	0	27	0	1	27	293
6:45 AM	13	171	0	0	0	184	0	0	0	0	1	0	0	129	2	0	0	131	0	0	21	0	0	21	336

Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	33	244	1	0	0	278	0	0	2	0	2	0	2	0	223	5	0	0	228	2	0	41	0	43
11:15 AM	32	221	0	0	0	253	0	1	1	0	1	2	0	304	0	0	0	304	1	0	36	0	1	
11:30 AM	33	220	0	0	1	253	0	0	0	0	2	0	0	315	1	0	0	316	1	0	44	0	45	
11:45 AM	46	266	0	0	1	312	0	0	0	0	3	0	1	300	5	0	0	306	0	1	38	0	39	
Hourly Total	144	951	1	0	2	1096	0	1	3	0	8	4	1	1142	11	0	0	1154	4	1	159	0	164	
12:00 PM	50	261	0	0	1	311	0	0	0	0	0	0	0	317	6	1	0	324	0	0	40	0	2	
12:15 PM	42	258	0	0	0	300	0	0	2	0	0	2	1	267	6	0	0	274	0	0	47	0	40	
12:30 PM	39	304	0	0	0	343	0	0	0	0	2	0	0	335	7	0	0	342	0	0	40	0	1	
12:45 PM	40	277	1	0	0	318	1	0	0	0	2	1	0	285	2	0	0	287	1	0	57	0	58	
Hourly Total	171	1100	1	0	1	1272	1	0	2	0	4	3	1	1204	21	1	0	1227	1	0	184	0	185	
Grand Total	1169	8059	6	0	6	9234	8	1	16	0	36	25	9	8418	128	2	3	8557	16	3	1296	0	13	
Approach %	12.7	87.3	0.1	0.0	-	-	32.0	4.0	64.0	0.0	-	-	0.1	98.4	1.5	0.0	-	-	1.2	0.2	98.6	0.0	-	
Total %	6.1	42.1	0.0	0.0	-	48.3	0.0	0.0	0.1	0.0	-	0.1	0.0	44.0	0.7	0.0	-	44.7	0.1	0.0	6.8	0.0	-	
Lights	1155	7815	6	0	-	8976	8	1	16	0	-	25	9	8166	118	2	-	8295	15	3	1283	0	-	
% Lights	98.8	97.0	100.0	-	-	97.2	100.0	100.0	100.0	-	-	100.0	100.0	97.0	92.2	100.0	-	96.9	93.8	100.0	99.0	-	-	
Mediums	14	221	0	0	-	235	0	0	0	0	-	-	0	214	10	0	-	224	1	0	12	0	-	
% Mediums	1.2	2.7	0.0	-	-	2.5	0.0	0.0	0.0	-	-	0.0	0.0	2.5	7.8	0.0	-	2.6	6.3	0.0	0.9	-	-	
Articulated Trucks	0	21	0	0	-	21	0	0	0	0	-	0	0	35	0	0	-	35	0	0	0	0	-	
% Articulated Trucks	0.0	0.3	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.4	0.0	0.0	-	0.4	0.0	0.0	0.0	-	-	
Bicycles on Road	0	2	0	0	-	2	0	0	0	0	-	0	0	3	0	0	-	3	0	0	1	0	-	
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.1	-	-	
Bicycles on Crosswalk	-	-	-	1	-	-	-	-	-	-	22	-	-	-	-	-	0	-	-	-	-	6	-	
% Bicycles on Crosswalk	-	-	-	-	12.5	-	-	-	-	-	61.1	-	-	-	-	-	0.0	-	-	-	-	46.2	-	
Pedestrians	-	-	-	-	7	-	-	-	-	-	14	-	-	-	-	-	3	-	-	-	-	7	-	
% Pedestrians	-	-	-	-	87.5	-	-	-	-	-	36.9	-	-	-	-	-	100.0	-	-	-	-	53.6	-	

Traffic and Transportation Engineering Services
1800 Frobisher Street
PO Box 5000, STN A
Sudbury, Ontario, Canada P3A 5P3
705-674-4455 mofor.augustine@greatersudbury.ca

Count Name: Cochrane St @ Kingsway
Site Code: 01023103
Start Date: 07/07/2022
Page No: 3



Turning Movement Data Plot



Traffic and Transportation Engineering Services
1800 Frobisher Street
PO Box 5000, STN A
Sudbury, Ontario, Canada P3A 5P3
705-674-4455 mofo.augustine@greatersudbury.ca

Count Name: Cochrane St @ Kingsway
Site Code: 01023103
Start Date: 07/07/2022
Page No: 4

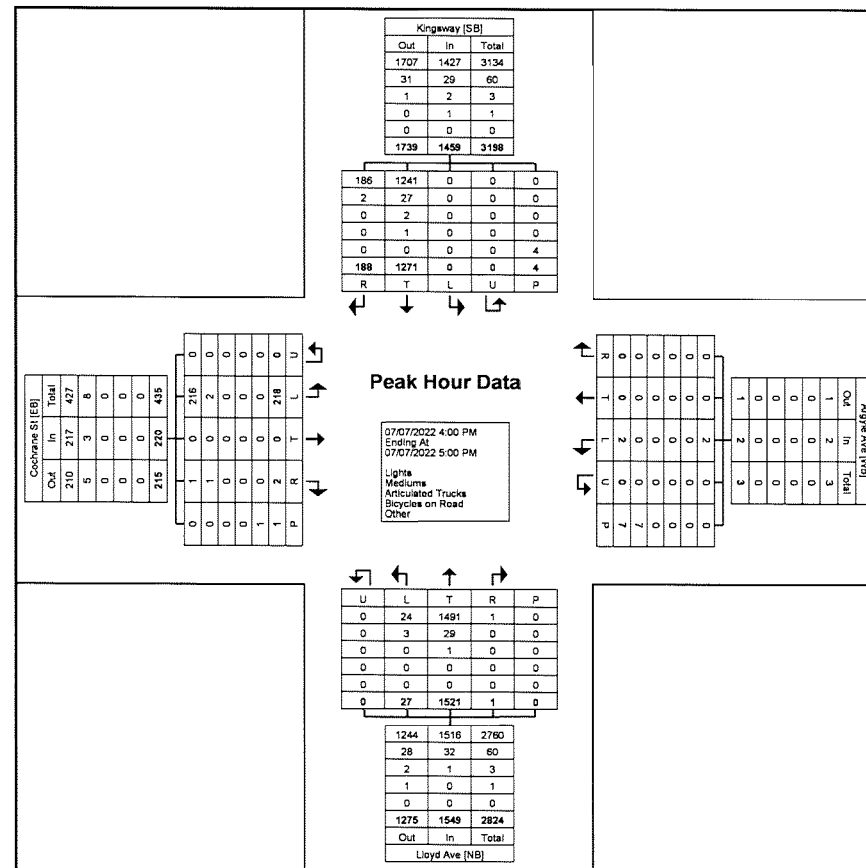
Turning Movement Peak Hour Data (4:00 PM)

Start Time	Kingsway Southbound						Argyle Ave Westbound						Lloyd Ave Northbound						Cochrane St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	57	324	0	0	0	381	0	0	0	0	0	0	0	378	7	0	0	385	0	0	51	0	0	51	817
4:15 PM	50	310	0	0	2	360	0	0	1	0	3	1	1	354	5	0	0	360	0	0	53	0	0	53	774
4:30 PM	45	333	0	0	2	378	0	0	1	0	1	1	0	416	7	0	0	423	0	0	70	0	1	70	872
4:45 PM	36	304	0	0	0	340	0	0	0	0	3	0	0	373	8	0	0	381	2	0	44	0	0	46	767
Total	188	1271	0	0	4	1459	0	0	2	0	7	2	1	1521	27	0	0	1549	2	0	218	0	1	220	3230
Approach %	12.9	87.1	0.0	0.0	-	-	0.0	0.0	100.0	0.0	-	-	0.1	98.2	1.7	0.0	-	-	0.9	0.0	99.1	0.0	-	-	-
Total %	5.8	39.3	0.0	0.0	-	45.2	0.0	0.0	0.1	0.0	-	0.1	0.0	47.1	0.8	0.0	-	48.0	0.1	0.0	6.7	0.0	-	6.8	-
PHF	0.825	0.954	0.000	0.000	-	0.957	0.000	0.000	0.500	0.000	-	0.500	0.250	0.914	0.844	0.000	-	0.915	0.250	0.000	0.779	0.000	-	0.786	0.926
Lights	186	1241	0	0	-	1427	0	0	2	0	-	2	1	1491	24	0	-	1516	1	0	216	0	-	217	3162
% Lights	98.9	97.6	-	-	-	97.8	-	-	100.0	-	-	100.0	100.0	98.0	88.9	-	-	97.9	50.0	-	99.1	-	-	98.6	97.9
Mediums	2	27	0	0	-	29	0	0	0	0	-	0	0	29	3	0	-	32	1	0	2	0	-	3	64
% Mediums	1.1	2.1	-	-	-	2.0	-	-	0.0	-	-	0.0	0.0	1.9	11.1	-	-	2.1	50.0	-	0.9	-	-	1.4	2.0
Articulated Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	3
% Articulated Trucks	0.0	0.2	-	-	-	0.1	-	-	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	-	0.0	-	-	0.0	0.1
Bicycles on Road	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	0.0	0.1	-	-	-	0.1	-	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	25.0	-	-	-	-	-	42.9	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	3	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	75.0	-	-	-	-	-	57.1	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



Traffic and Transportation Engineering Services
 1800 Frobisher Street
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 Sudbury, Ontario, Canada P3A 5P3
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Count Name: Cochrane St @ Kingsway
 Site Code: 01023103
 Start Date: 07/07/2022
 Page No: 5



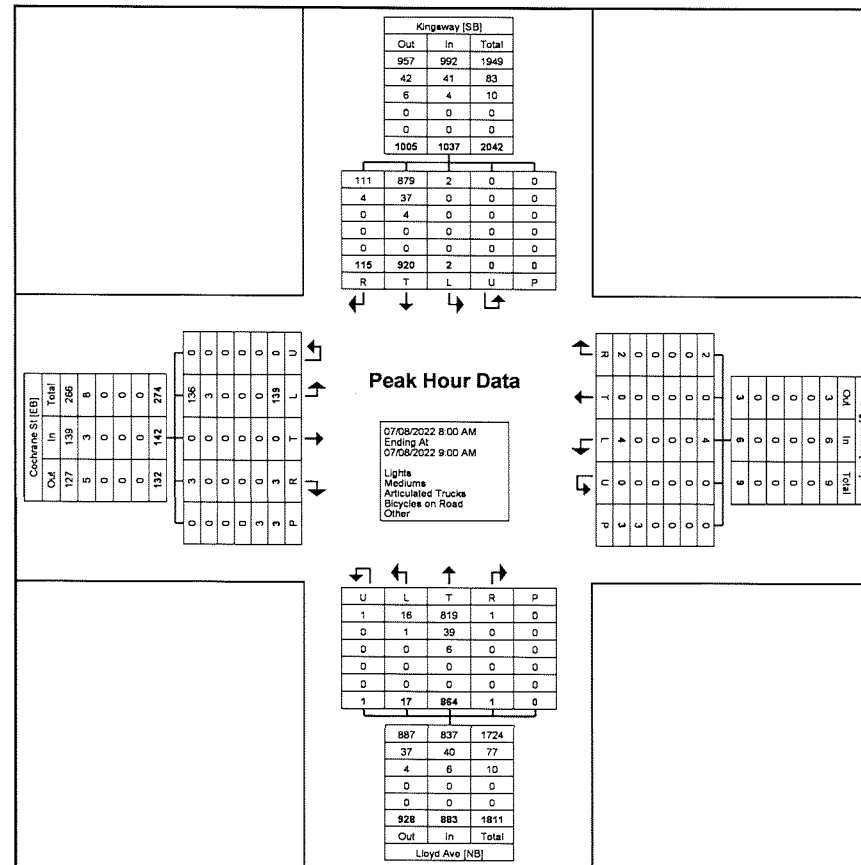


Traffic and Transportation Engineering Services
1800 Frobisher Street
PO Box 5000, STN A
Sudbury, Ontario, Canada P3A 5P3
705-674-4455 mofo:augustine@greatersudbury.ca

Count Name: Cochrane St @ Kingsway
Site Code: 01023103
Start Date: 07/07/2022
Page No: 6

Turning Movement Peak Hour Data (8:00 AM)

Start Time	Kingsway Southbound						Argyle Ave Westbound						Lloyd Ave Northbound						Cochrane St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
8:00 AM	23	219	0	0	0	242	0	0	0	0	0	0	0	183	5	0	0	188	1	0	28	0	0	29	459
8:15 AM	36	218	1	0	0	255	1	0	1	0	2	2	0	176	1	1	0	178	0	0	37	0	2	37	472
8:30 AM	26	244	1	0	0	271	0	0	1	0	1	1	0	228	5	0	0	233	1	0	29	0	0	30	535
8:45 AM	30	239	0	0	0	269	1	0	2	0	0	3	1	277	6	0	0	284	1	0	45	0	1	46	602
Total	115	920	2	0	0	1037	2	0	4	0	3	6	1	864	17	1	0	883	3	0	139	0	3	142	2068
Approach %	11.1	88.7	0.2	0.0	-	-	33.3	0.0	66.7	0.0	-	-	0.1	97.8	1.9	0.1	-	-	2.1	0.0	97.9	0.0	-	-	-
Total %	5.6	44.5	0.1	0.0	-	50.1	0.1	0.0	0.2	0.0	-	0.3	0.0	41.8	0.8	0.0	-	42.7	0.1	0.0	6.7	0.0	-	6.9	-
PHF	0.799	0.943	0.500	0.000	-	0.957	0.500	0.000	0.500	0.000	-	0.500	0.250	0.780	0.708	0.250	-	0.777	0.750	0.000	0.772	0.000	-	0.772	0.859
Lights	111	879	2	0	-	992	2	0	4	0	-	6	1	819	16	1	-	837	3	0	136	0	-	139	1974
% Lights	96.5	95.5	100.0	-	-	95.7	100.0	-	100.0	-	-	100.0	100.0	94.8	94.1	100.0	-	94.8	100.0	-	97.8	-	-	97.9	95.5
Mediums	4	37	0	0	-	41	0	0	0	0	-	0	0	39	1	0	-	40	0	0	3	0	-	3	84
% Mediums	3.5	4.0	0.0	-	-	4.0	0.0	-	0.0	-	-	0.0	0.0	4.5	5.9	0.0	-	4.5	0.0	-	2.2	-	-	2.1	4.1
Articulated Trucks	0	4	0	0	-	4	0	0	0	0	-	0	0	6	0	0	-	6	0	0	0	0	-	0	10
% Articulated Trucks	0.0	0.4	0.0	-	-	0.4	0.0	-	0.0	-	-	0.0	0.0	0.7	0.0	0.0	-	0.7	0.0	-	0.0	-	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	2	-	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	66.7	-	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	1	-	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	33.3	-	-	-



Turning Movement Peak Hour Data Plot (8:00 AM)

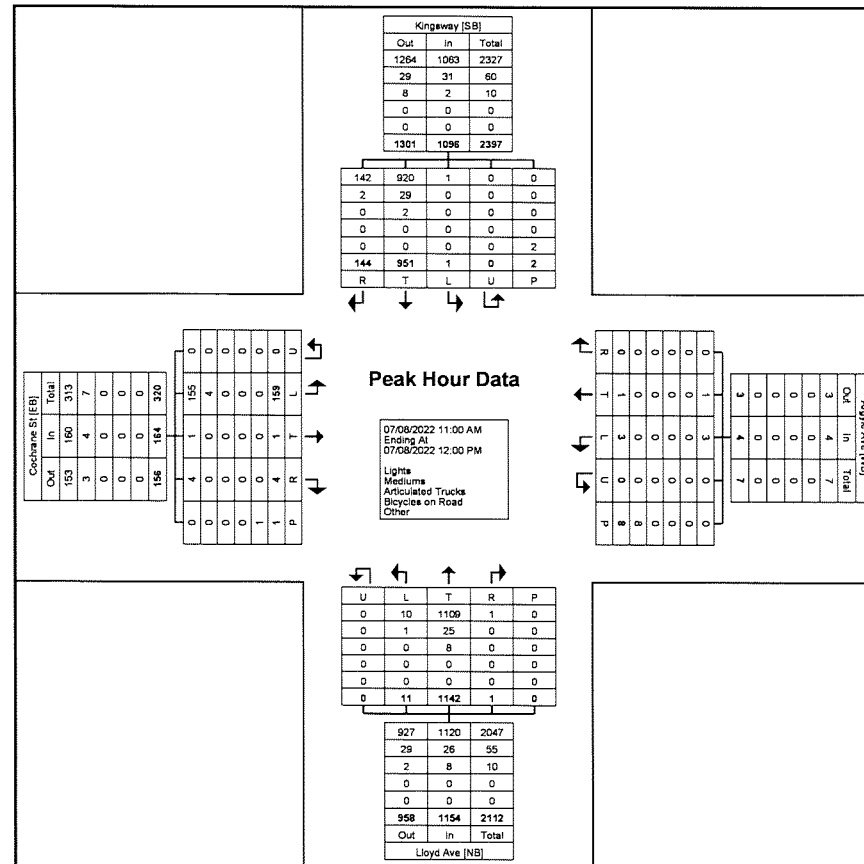
Turning Movement Peak Hour Data (11:00 AM)

Start Time	Kingsway Southbound						Argyle Ave Westbound						Lloyd Ave Northbound						Cochrane St Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	33	244	1	0	0	278	0	0	2	0	2	2	0	223	5	0	0	228	2	0	41	0	0	43	551
11:15 AM	32	221	0	0	0	253	0	1	1	0	1	2	0	304	0	0	0	304	1	0	36	0	1	37	596
11:30 AM	33	220	0	0	1	253	0	0	0	0	2	0	0	315	1	0	0	316	1	0	44	0	0	45	614
11:45 AM	46	266	0	0	1	312	0	0	0	0	3	0	1	300	5	0	0	306	0	1	38	0	0	39	657
Total	144	951	1	0	2	1096	0	1	3	0	6	4	1	1142	11	0	0	1154	4	1	159	0	1	164	2418
Approach %	13.1	86.8	0.1	0.0	-	-	0.0	25.0	75.0	0.0	-	-	0.1	99.0	1.0	0.0	-	-	2.4	0.6	97.0	0.0	-	-	-
Total %	6.0	39.3	0.0	0.0	-	45.3	0.0	0.0	0.1	0.0	-	0.2	0.0	47.2	0.5	0.0	-	47.7	0.2	0.0	6.6	0.0	-	6.8	-
PHF	0.783	0.894	0.250	0.000	-	0.878	0.000	0.250	0.375	0.000	-	0.500	0.250	0.906	0.550	0.000	-	0.913	0.500	0.250	0.903	0.000	-	0.911	0.920
Lights	142	920	1	0	-	1063	0	1	3	0	-	4	1	1109	10	0	-	1120	4	1	155	0	-	160	2347
% Lights	98.6	96.7	100.0	-	-	97.0	-	100.0	100.0	-	-	100.0	100.0	97.1	90.9	-	-	97.1	100.0	100.0	97.5	-	-	97.6	97.1
Mediums	2	29	0	0	-	31	0	0	0	0	-	0	0	25	1	0	-	26	0	0	4	0	-	4	61
% Mediums	1.4	3.0	0.0	-	-	2.8	-	0.0	0.0	-	-	0.0	0.0	2.2	9.1	-	-	2.3	0.0	0.0	2.5	-	-	2.4	2.5
Articulated Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	8	0	0	-	8	0	0	0	0	-	0	10
% Articulated Trucks	0.0	0.2	0.0	-	-	0.2	-	0.0	0.0	-	-	0.0	0.0	0.7	0.0	-	-	0.7	0.0	0.0	0.0	-	-	0.0	0.4
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	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	1	-	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	75.0	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-
Pedestrians	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	0	-	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	25.0	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-

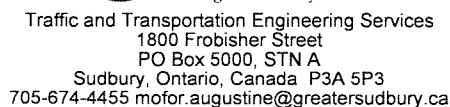


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Count Name: Cochrane St @ Kingsway
 Site Code: 01023103
 Start Date: 07/07/2022
 Page No: 9

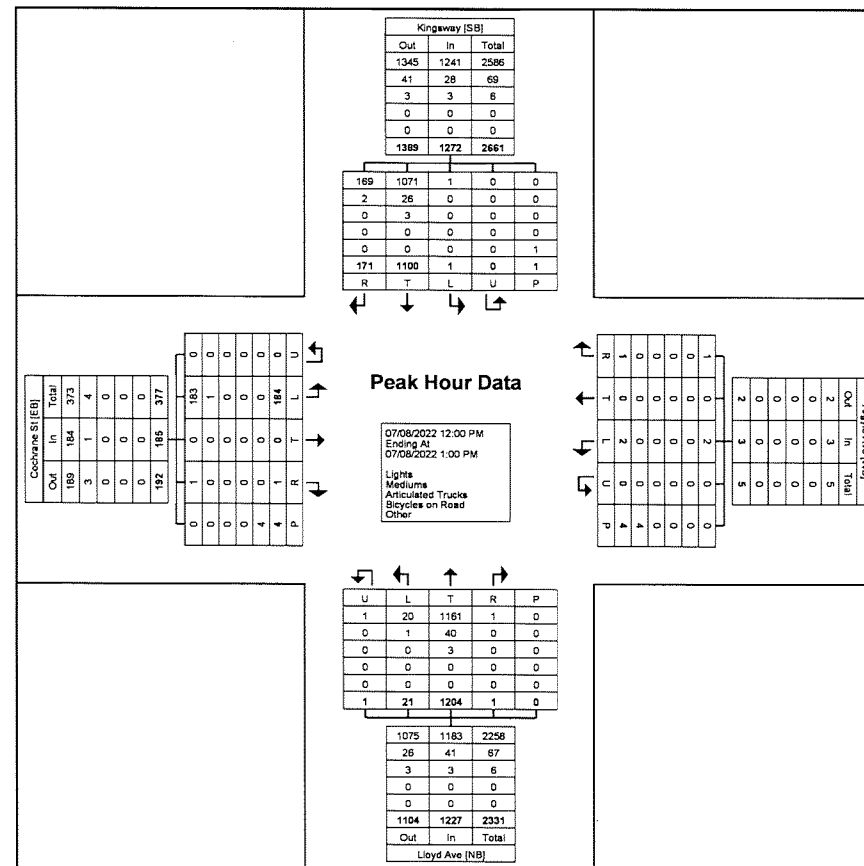


Turning Movement Peak Hour Data Plot (11:00 AM)



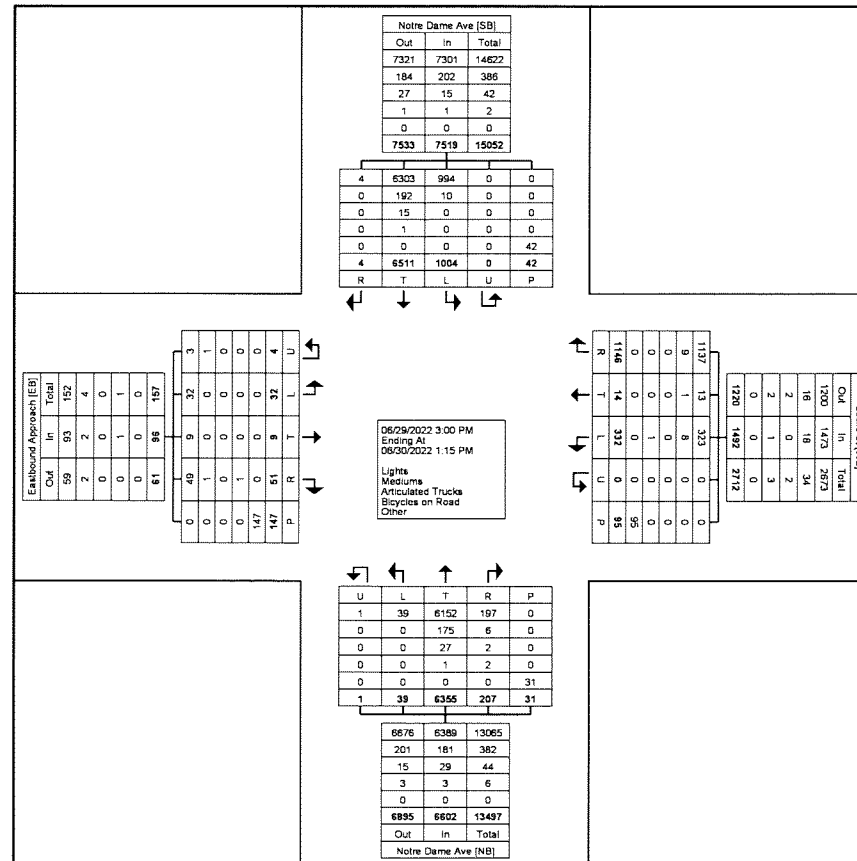
Count Name: Cochrane St @ Kingsway
Site Code: 01023103
Start Date: 07/07/2022
Page No: 10

[illegible]



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

Hourly Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11:00 AM	0	198	23	0	0	221	31	1	6	0	5	38	10	207	2	0	1	219	1	0	0	1	3	2	480
11:15 AM	0	170	32	0	2	202	33	1	11	0	6	45	7	187	0	0	1	194	3	0	0	0	11	3	444
11:30 AM	0	204	31	0	3	235	46	0	17	0	2	63	7	225	1	0	0	233	0	1	0	0	8	1	532
11:45 AM	0	213	40	0	1	253	49	1	11	0	2	61	6	228	0	0	4	234	0	0	0	1	1	1	549
Hourly Total	0	785	126	0	6	911	159	3	45	0	15	207	30	847	3	0	6	880	4	1	0	2	23	7	2005
12:00 PM	0	198	36	0	1	234	47	1	12	0	1	60	8	242	0	0	0	250	3	1	0	0	2	4	548
12:15 PM	0	204	31	0	1	235	44	0	19	0	1	63	6	233	1	0	1	240	2	0	1	0	13	3	541
12:30 PM	0	267	36	0	2	303	55	2	9	0	2	66	8	212	1	0	1	221	1	0	1	0	5	2	592
12:45 PM	0	233	58	0	0	291	47	0	11	0	1	58	3	200	1	0	0	204	1	0	0	0	0	1	554
Hourly Total	0	902	161	0	4	1063	193	3	51	0	5	247	25	887	3	0	2	915	7	1	2	0	20	10	2235
1:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Grand Total	4	6511	1004	0	42	7519	1146	14	332	0	95	1492	207	6355	39	1	31	6602	51	9	32	4	147	96	15709
Approach %	0.1	86.6	13.4	0.0	-	-	76.8	0.9	22.3	0.0	-	-	3.1	96.3	0.6	0.0	-	-	53.1	9.4	33.3	4.2	-	-	-
Total %	0.0	41.4	6.4	0.0	-	47.9	7.3	0.1	2.1	0.0	-	9.5	1.3	40.5	0.2	0.0	-	42.0	0.3	0.1	0.2	0.0	-	0.6	-
Lights	4	6303	994	0	-	7301	1137	13	323	0	-	1473	197	6152	39	1	-	6389	49	9	32	3	-	93	15256
% Lights	100.0	96.8	99.0	-	-	97.1	99.2	92.9	97.3	-	-	98.7	95.2	96.8	100.0	100.0	-	96.8	96.1	100.0	100.0	75.0	-	96.9	97.1
Mediums	0	192	10	0	-	202	9	1	8	0	-	18	6	175	0	0	-	181	1	0	0	1	-	2	403
% Mediums	0.0	2.9	1.0	-	-	2.7	0.8	7.1	2.4	-	-	1.2	2.9	2.8	0.0	0.0	-	2.7	2.0	0.0	0.0	25.0	-	2.1	2.6
Articulated Trucks	0	15	0	0	-	15	0	0	0	0	-	0	2	27	0	0	-	29	0	0	0	0	-	0	44
% Articulated Trucks	0.0	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	1.0	0.4	0.0	0.0	-	0.4	0.0	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	1	0	0	-	1	0	0	1	0	-	1	2	1	0	0	-	3	1	0	0	0	-	1	6
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.3	-	-	0.1	1.0	0.0	0.0	0.0	-	0.0	2.0	0.0	0.0	0.0	-	1.0	0.0
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	9	-	-	-	-	-	-	4	-	-	-	-	-	19	-	-
% Bicycles on Crosswalk	-	-	-	-	7.1	-	-	-	-	9.5	-	-	-	-	-	-	12.9	-	-	-	-	-	12.9	-	-
Pedestrians	-	-	-	-	39	-	-	-	-	86	-	-	-	-	-	-	27	-	-	-	-	-	128	-	-
% Pedestrians	-	-	-	-	92.9	-	-	-	-	90.5	-	-	-	-	-	-	87.1	-	-	-	-	-	87.1	-	-



Turning Movement Data Plot

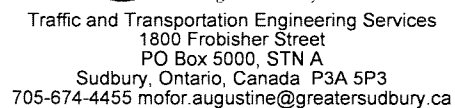


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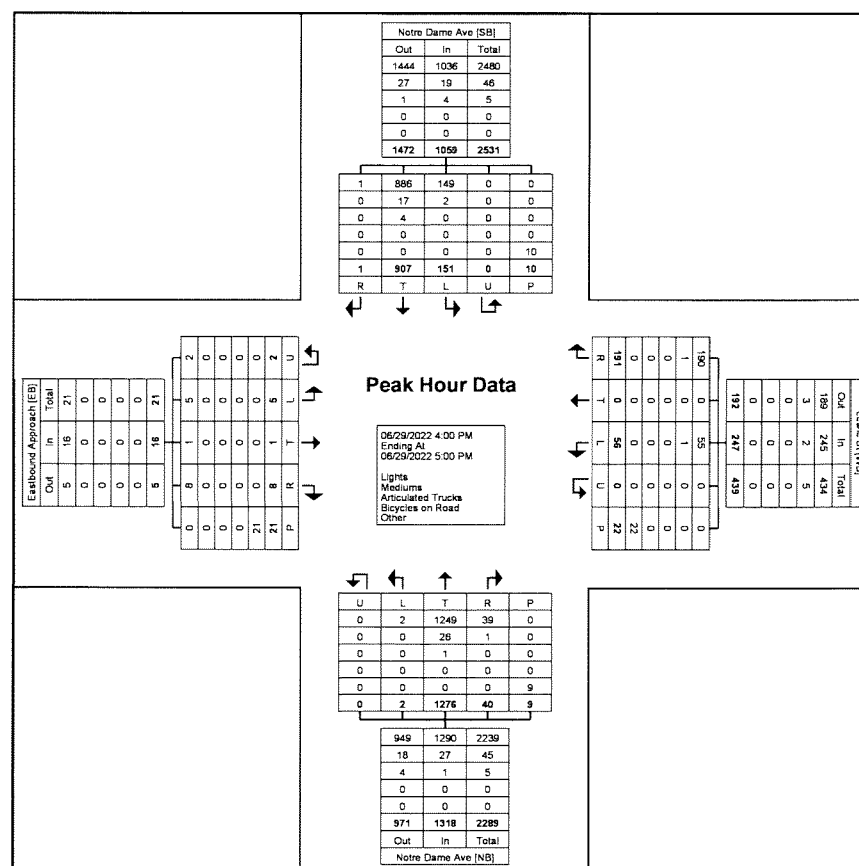
Count Name: Notre Dame Ave @ Leslie
Site Code: 01013103
Start Date: 06/29/2022
Page No: 4

Turning Movement Peak Hour Data (4:00 PM)

Start Time	Notre Dame Ave Southbound						Leslie St Westbound						Notre Dame Ave Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
4:00 PM	1	228	42	0	4	271	52	0	19	0	6	71	11	322	0	0	4	333	2	0	2	1	6	5	680
4:15 PM	0	222	38	0	3	260	45	0	14	0	3	59	10	355	1	0	3	366	2	1	2	0	9	5	690
4:30 PM	0	217	31	0	0	248	48	0	9	0	6	57	11	353	1	0	2	365	2	0	0	1	3	3	673
4:45 PM	0	240	40	0	3	280	46	0	14	0	7	60	8	246	0	0	0	254	2	0	1	0	3	3	597
Total	1	907	151	0	10	1059	191	0	56	0	22	247	40	1276	2	0	9	1318	8	1	5	2	21	16	2640
Approach %	0.1	85.6	14.3	0.0	-	-	77.3	0.0	22.7	0.0	-	-	3.0	96.8	0.2	0.0	-	-	50.0	6.3	31.3	12.5	-	-	-
Total %	0.0	34.4	5.7	0.0	-	40.1	7.2	0.0	2.1	0.0	-	9.4	1.5	48.3	0.1	0.0	-	49.9	0.3	0.0	0.2	0.1	-	0.6	-
PHF	0.250	0.945	0.899	0.000	-	0.946	0.918	0.000	0.737	0.000	-	0.870	0.909	0.899	0.500	0.000	-	0.900	1.000	0.250	0.625	0.500	-	0.800	0.957
Lights	1	886	149	0	-	1036	190	0	55	0	-	245	39	1249	2	0	-	1290	8	1	5	2	-	16	2587
% Lights	100.0	97.7	98.7	-	-	97.8	99.5	-	98.2	-	-	99.2	97.5	97.9	100.0	-	-	97.9	100.0	100.0	100.0	100.0	-	100.0	98.0
Mediums	0	17	2	0	-	19	1	0	1	0	-	2	1	26	0	0	-	27	0	0	0	0	-	0	48
% Mediums	0.0	1.9	1.3	-	-	1.8	0.5	-	1.8	-	-	0.8	2.5	2.0	0.0	-	-	2.0	0.0	0.0	0.0	0.0	-	0.0	1.8
Articulated Trucks	0	4	0	0	-	4	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	5
% Articulated Trucks	0.0	0.4	0.0	-	-	0.4	0.0	-	0.0	-	-	0.0	0.0	0.1	0.0	-	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	13.6	-	-	-	-	-	0.0	-	-	-	-	-	4.8	-	-
Pedestrians	-	-	-	-	10	-	-	-	-	-	19	-	-	-	-	-	9	-	-	-	-	-	20	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	86.4	-	-	-	-	-	100.0	-	-	-	-	-	95.2	-	-



Count Name: Notre Dame Ave @ Leslie
Site Code: 01013103
Start Date: 06/29/2022
Page No: 5



Turning Movement Peak Hour Data Plot (4:00 PM)

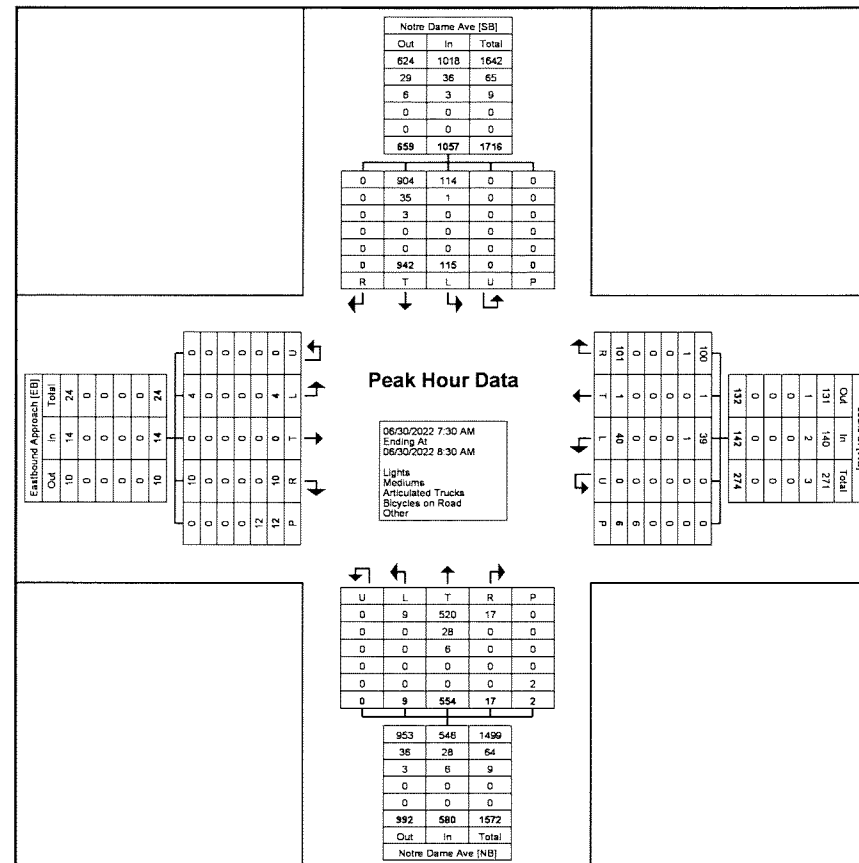


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Count Name: Notre Dame Ave @ Leslie
 Site Code: 01013103
 Start Date: 06/29/2022
 Page No: 6

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Notre Dame Ave Southbound						Leslie St Westbound						Notre Dame Ave Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
7:30 AM	0	260	38	0	0	298	23	0	6	0	1	29	2	156	0	0	0	158	1	0	1	0	2	2	487
7:45 AM	0	227	28	0	0	255	24	0	12	0	2	36	4	117	2	0	1	123	3	0	2	0	3	5	419
8:00 AM	0	249	22	0	0	271	29	1	9	0	1	39	5	161	7	0	1	173	1	0	0	0	1	1	484
8:15 AM	0	206	27	0	0	233	25	0	13	0	2	38	6	120	0	0	0	126	5	0	1	0	1	6	403
Total	0	942	115	0	0	1057	101	1	40	0	6	142	17	554	9	0	2	580	10	0	4	0	12	14	1793
Approach %	0.0	89.1	10.9	0.0	-	-	71.1	0.7	28.2	0.0	-	-	2.9	95.5	1.6	0.0	-	-	71.4	0.0	28.6	0.0	-	-	-
Total %	0.0	52.5	6.4	0.0	-	59.0	5.6	0.1	2.2	0.0	-	7.9	0.9	30.9	0.5	0.0	-	32.3	0.6	0.0	0.2	0.0	-	0.8	-
PHF	0.000	0.906	0.757	0.000	-	0.887	0.871	0.250	0.769	0.000	-	0.910	0.708	0.860	0.321	0.000	-	0.838	0.500	0.000	0.500	0.000	-	0.583	0.920
Lights	0	904	114	0	-	1018	100	1	39	0	-	140	17	520	9	0	-	546	10	0	4	0	-	14	1718
% Lights	-	96.0	99.1	-	-	96.3	99.0	100.0	97.5	-	-	98.6	100.0	93.9	100.0	-	-	94.1	100.0	-	100.0	-	-	100.0	95.8
Mediums	0	35	1	0	-	36	1	0	1	0	-	2	0	28	0	0	-	28	0	0	0	0	-	0	66
% Mediums	-	3.7	0.9	-	-	3.4	1.0	0.0	2.5	-	-	1.4	0.0	5.1	0.0	-	-	4.8	0.0	-	0.0	-	-	0.0	3.7
Articulated Trucks	0	3	0	0	-	3	0	0	0	0	-	0	0	6	0	0	-	6	0	0	0	0	-	0	9
% Articulated Trucks	-	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.0	1.1	0.0	-	-	1.0	0.0	-	0.0	-	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	2	-	-	-	-	-	12	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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



Traffic and Transportation Engineering Services
1800 Frobisher Street
PO Box 5000, STN A
Sudbury, Ontario, Canada P3A 5P3
705-674-4455 mofo.augustine@greatersudbury.ca

Count Name: Notre Dame Ave @ Leslie
Site Code: 01013103
Start Date: 06/29/2022
Page No: 8

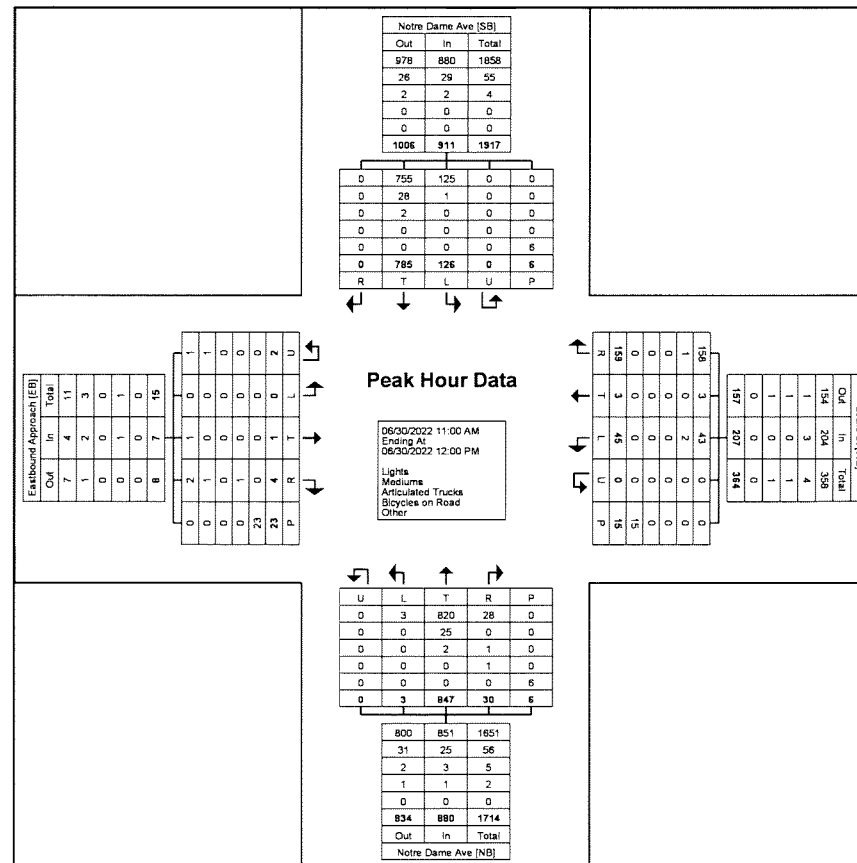
Turning Movement Peak Hour Data (11:00 AM)

Start Time	Notre Dame Ave Southbound						Leslie St Westbound						Notre Dame Ave Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
11:00 AM	0	198	23	0	0	221	31	1	6	0	5	38	10	207	2	0	1	219	1	0	0	1	3	2	480
11:15 AM	0	170	32	0	2	202	33	1	11	0	6	45	7	187	0	0	1	194	3	0	0	0	11	3	444
11:30 AM	0	204	31	0	3	235	46	0	17	0	2	63	7	225	1	0	0	233	0	1	0	0	8	1	532
11:45 AM	0	213	40	0	1	253	49	1	11	0	2	61	6	228	0	0	4	234	0	0	0	1	1	1	549
Total	0	785	126	0	6	911	159	3	45	0	15	207	30	847	3	0	6	880	4	1	0	2	23	7	2005
Approach %	0.0	86.2	13.8	0.0	-	-	76.8	1.4	21.7	0.0	-	-	3.4	96.3	0.3	0.0	-	-	57.1	14.3	0.0	28.6	-	-	-
Total %	0.0	39.2	6.3	0.0	-	45.4	7.9	0.1	2.2	0.0	-	10.3	1.5	42.2	0.1	0.0	-	43.9	0.2	0.0	0.0	0.1	-	0.3	-
PHF	0.000	0.921	0.788	0.000	-	0.900	0.811	0.750	0.662	0.000	-	0.821	0.750	0.929	0.375	0.000	-	0.940	0.333	0.250	0.000	0.500	-	0.583	0.913
Lights	0	755	125	0	-	880	158	3	43	0	-	204	28	820	3	0	-	851	2	1	0	1	-	4	1939
% Lights	-	96.2	99.2	-	-	96.6	99.4	100.0	95.6	-	-	98.6	93.3	96.8	100.0	-	-	96.7	50.0	100.0	-	50.0	-	57.1	96.7
Mediums	0	28	1	0	-	29	1	0	2	0	-	3	0	25	0	0	-	25	1	0	0	1	-	2	59
% Mediums	-	3.6	0.8	-	-	3.2	0.6	0.0	4.4	-	-	1.4	0.0	3.0	0.0	-	-	2.8	25.0	0.0	-	50.0	-	28.6	2.9
Articulated Trucks	0	2	0	0	-	2	0	0	0	0	-	0	1	2	0	0	-	3	0	0	0	0	-	0	5
% Articulated Trucks	-	0.3	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	3.3	0.2	0.0	-	-	0.3	0.0	0.0	-	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	1	0	0	0	-	1	2
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	3.3	0.0	0.0	-	-	0.1	25.0	0.0	-	0.0	-	14.3	0.1
Bicycles on Crosswalk	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	5	-	-
% Bicycles on Crosswalk	-	-	-	-	33.3	-	-	-	-	-	6.7	-	-	-	-	-	16.7	-	-	-	-	-	21.7	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	14	-	-	-	-	-	5	-	-	-	-	-	18	-	-
% Pedestrians	-	-	-	-	66.7	-	-	-	-	-	93.3	-	-	-	-	-	83.3	-	-	-	-	-	78.3	-	-



Traffic and Transportation Engineering Services
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Count Name: Notre Dame Ave @ Leslie
Site Code: 01013103
Start Date: 06/29/2022
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Turning Movement Peak Hour Data Plot (11:00 AM)



Traffic and Transportation Engineering Services
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Count Name: Notre Dame Ave @ Leslie
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Page No: 10

Turning Movement Peak Hour Data (12:00 PM)

Start Time	Notre Dame Ave Southbound						Leslie St Westbound						Notre Dame Ave Northbound						Eastbound Approach Eastbound						Int. Total
	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	Right	Thru	Left	U-Turn	Peds	App. Total	
12:00 PM	0	198	36	0	1	234	47	1	12	0	1	60	8	242	0	0	0	250	3	1	0	0	2	4	548
12:15 PM	0	204	31	0	1	235	44	0	19	0	1	63	6	233	1	0	1	240	2	0	1	0	13	3	541
12:30 PM	0	267	36	0	2	303	55	2	9	0	2	66	8	212	1	0	1	221	1	0	1	0	5	2	592
12:45 PM	0	233	58	0	0	291	47	0	11	0	1	58	3	200	1	0	0	204	1	0	0	0	0	1	554
Total	0	902	161	0	4	1063	193	3	51	0	5	247	25	887	3	0	2	915	7	1	2	0	20	10	2235
Approach %	0.0	84.9	15.1	0.0	-	-	78.1	1.2	20.6	0.0	-	-	2.7	96.9	0.3	0.0	-	-	70.0	10.0	20.0	0.0	-	-	-
Total %	0.0	40.4	7.2	0.0	-	47.6	8.6	0.1	2.3	0.0	-	11.1	1.1	39.7	0.1	0.0	-	40.9	0.3	0.0	0.1	0.0	-	0.4	-
PHF	0.000	0.845	0.694	0.000	-	0.877	0.877	0.375	0.671	0.000	-	0.936	0.781	0.916	0.750	0.000	-	0.915	0.583	0.250	0.500	0.000	-	0.625	0.944
Lights	0	872	160	0	-	1032	191	2	51	0	-	244	23	863	3	0	-	889	7	1	2	0	-	10	2175
% Lights	-	96.7	99.4	-	-	97.1	99.0	66.7	100.0	-	-	98.8	92.0	97.3	100.0	-	-	97.2	100.0	100.0	100.0	-	-	100.0	97.3
Mediums	0	28	1	0	-	29	2	1	0	0	-	3	1	21	0	0	-	22	0	0	0	0	-	0	54
% Mediums	-	3.1	0.6	-	-	2.7	1.0	33.3	0.0	-	-	1.2	4.0	2.4	0.0	-	-	2.4	0.0	0.0	0.0	-	-	0.0	2.4
Articulated Trucks	0	2	0	0	-	2	0	0	0	0	-	0	0	3	0	0	-	3	0	0	0	0	-	0	5
% Articulated Trucks	-	0.2	0.0	-	-	0.2	0.0	0.0	0.0	-	-	0.0	0.0	0.3	0.0	-	-	0.3	0.0	0.0	0.0	-	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	4.0	0.0	0.0	-	-	0.1	0.0	0.0	0.0	-	-	0.0	0.0
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	3	-	-
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	15.0	-	-
Pedestrians	-	-	-	-	4	-	-	-	-	-	5	-	-	-	-	-	2	-	-	-	-	-	17	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	85.0	-	-

Signal Timing Report

Run Time: 2023-09-26 11:55:21

Device: 715364

Controller Type: Generic ASC		ID: 715364			Location: NOTRE DAME AVE E @ LESLIE ST				
Phase - Parameter 1-16	Units	1	2	3	4	5	6	7	8
Walk	Sec	0	7	0	7	0	7	0	7
Ped Clear	Sec	0	12	0	26	0	12	0	26
Min Green	Sec	5	20	0	8	0	20	0	8
Passage	Sec	3.0	5.0	0.0	4.0	0.0	5.0	0.0	4.0
Maximum 1	Sec	10	40	0	20	0	40	0	20
Maximum 2	Sec	10	40	0	20	0	40	0	20
Yellow Change	Sec	3.0	3.7	0.0	3.7	0.0	3.7	0.0	3.7
Red Clearance	Sec	1.0	2.2	0.0	2.6	0.0	2.2	0.0	2.6
Red Revert	Sec	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	phaseNotOn	yellowChange	phaseNotOn	phaseNotOn	phaseNotOn	yellowChange	phaseNotOn	phaseNotOn
[P2] Options	Bit	0:Enabled Phase 5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 3:Non-Actuated 1 5:Non Lock Detector Memory 6:Min. Vehicle Recall 10:Dual Entry Phase	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 5:Non Lock Detector Memory 10:Dual Entry Phase	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 3:Non-Actuated 1 5:Non Lock Detector Memory 6:Min. Vehicle Recall 10:Dual Entry Phase	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 5:Non Lock Detector Memory 10:Dual Entry Phase
[P2] Ring	Ring	1	1	0	1	0	2	0	2
[P2] Concurrency	Phase (.)	(6)	(6)	()	(8)	()	(1,2)	()	(4)
Phase - Parameter 1-16	Units	9	10	11	12	13	14	15	16
Walk	Sec	0	7	0	7	0	7	0	7
Ped Clear	Sec	0	15	0	15	0	15	0	15
Min Green	Sec	4	15	4	15	4	15	4	15
Passage	Sec	2.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0
Maximum 1	Sec	15	45	15	45	15	45	15	45
Maximum 2	Sec	15	45	15	45	15	45	15	45
Yellow Change	Sec	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
Red Clearance	Sec	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0

Signal Timing Report

Controller Type: Generic ASC		ID: 715364				Location: NOTRE DAME AVE E @ LESLIE ST			
Phase - Parameter 1-16	Units	9	10	11	12	13	14	15	16
Red Revert	Sec	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn
[P2] Options	Bit	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable
[P2] Ring	Ring	0	0	0	0	0	0	0	0
[P2] Concurrency	Phase (.)	()	()	()	()	()	()	()	()
Detector - Veh Parameter 1-16	Units	1	2	3	4	5	6	7	8
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	1	0	3	4	5	0	7	8
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	120	120	120	120	120	120	120	120
Max Presence	Min	60	60	60	60	60	60	60	60
Erratic Counts	Counts/Min	120	120	120	120	120	120	120	120
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 1-16	Units	9	10	11	12	13	14	15	16
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC		ID: 715364		Location: NOTRE DAME AVE E @ LESLIE ST					
Detector - Veh Parameter 1-16	Units	9	10	11	12	13	14	15	16
Max Presence	Min	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 17-32	Units	17	18	19	20	21	22	23	24
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 17-32	Units	25	26	27	28	29	30	31	32
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 33-48	Units	33	34	35	36	37	38	39	40
Options	Bit								
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type:		Generic ASC		ID:		715364		Location:		NOTRE DAME AVE E @ LESLIE ST	
Detector - Veh Parameter 33-48	Units	33	34	35	36	37	38	39	40		
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0		
Fail Time	Sec	0	0	0	0	0	0	0	0		
Detector - Veh Parameter 33-48	Units	41	42	43	44	45	46	47	48		
Options	Bit										
Call Phase	Phase	0	0	0	0	0	0	0	0		
Switch Phase	Phase	0	0	0	0	0	0	0	0		
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Queue Limit	Sec	0	0	0	0	0	0	0	0		
No Activity	Min	0	0	0	0	0	0	0	0		
Max Presence	Min	0	0	0	0	0	0	0	0		
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0		
Fail Time	Sec	0	0	0	0	0	0	0	0		
Detector - Veh Parameter 49-64	Units	49	50	51	52	53	54	55	56		
Options	Bit										
Call Phase	Phase	0	0	0	0	0	0	0	0		
Switch Phase	Phase	0	0	0	0	0	0	0	0		
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Queue Limit	Sec	0	0	0	0	0	0	0	0		
No Activity	Min	0	0	0	0	0	0	0	0		
Max Presence	Min	0	0	0	0	0	0	0	0		
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0		
Fail Time	Sec	0	0	0	0	0	0	0	0		
Detector - Veh Parameter 49-64	Units	57	58	59	60	61	62	63	64		
Options	Bit										
Call Phase	Phase	0	0	0	0	0	0	0	0		
Switch Phase	Phase	0	0	0	0	0	0	0	0		
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
Queue Limit	Sec	0	0	0	0	0	0	0	0		
No Activity	Min	0	0	0	0	0	0	0	0		
Max Presence	Min	0	0	0	0	0	0	0	0		
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0		
Fail Time	Sec	0	0	0	0	0	0	0	0		

Signal Timing Report

Controller Type: Generic ASC

ID: 715364

Location: NOTRE DAME AVE E @ LESLIE ST

Detector - Vol/Occ Parameter	Units	Value
Period	Sec	60

Detector - Ped Parameter 1-8	Units	1	2	3	4	5	6	7	8
Call Phase	Phase	2	4	6	4	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	60	60	60	60	0	0	0	0
Erratic Counts	Counts/Min	120	120	120	120	0	0	0	0

Unit - Parameter	Units	Value
Start Up Flash	Sec	5
Auto Ped Clear	Enum	disable
Back Up Time	Sec	300
Red Revert	Sec	2.0

Coordination - Parameter	Units	Value
Operational Mode	Enum	Automatic
Correction Mode	Enum	shortway
Maximum Mode	Enum	maxInhibit
Force Mode	Enum	fixed

Coordination - Pattern 1-16	Units	1	2	3	4	5	6	7	8
Cycle Time	Sec	100	0	110	0	0	0	0	0
Offset	Sec	0	0	0	0	0	0	0	0
Split	Split	1	2	3	4	5	6	7	8
Sequence	Sequence	1	1	1	1	1	1	1	1

Coordination - Pattern 1-16	Units	9	10	11	12	13	14	15	16
Cycle Time	Sec	0	0	0	0	0	0	0	0
Offset	Sec	0	0	0	0	0	0	0	0
Split	Split	9	10	11	12	13	14	15	16
Sequence	Sequence	1	1	1	1	1	1	1	1

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 1 - Mode	Enum	none	minimumVehicleReca II	none	none	none	minimumVehicleReca II	none	none
Split 1 - Time	Sec	12	47	0	41	0	59	0	41
Split 1 - Coord	Enum	False	True	False	False	False	True	False	False
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715364

Location: NOTRE DAME AVE E @ LESLIE ST

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 2 - Coord	Enum	False	False	False	False	False	False	False	False
Split 3 - Mode	Enum	none	minimumVehicleReca 	none	none	none	minimumVehicleReca 	none	none
Split 3 - Time	Sec	15	54	0	41	0	69	0	41
Split 3 - Coord	Enum	False	True	False	False	False	True	False	False
Split 4 - Mode	Enum	none	minimumVehicleReca 	none	none	none	minimumVehicleReca 	none	none
Split 4 - Time	Sec	0	0	0	0	0	0	0	0
Split 4 - Coord	Enum	False	False	False	False	False	False	False	False
Split 5 - Mode	Enum	none	minimumVehicleReca 	none	none	none	minimumVehicleReca 	none	none
Split 5 - Time	Sec	0	0	0	0	0	0	0	0
Split 5 - Coord	Enum	False	False	False	False	False	False	False	False
Split 6 - Mode	Enum	none	none	none	none	none	none	none	none
Split 6 - Time	Sec	0	0	0	0	0	0	0	0
Split 6 - Coord	Enum	False	False	False	False	False	False	False	False
Split 7 - Mode	Enum	none	none	none	none	none	none	none	none
Split 7 - Time	Sec	0	0	0	0	0	0	0	0
Split 7 - Coord	Enum	False	False	False	False	False	False	False	False
Split 8 - Mode	Enum	none	none	none	none	none	none	none	none
Split 8 - Time	Sec	0	0	0	0	0	0	0	0
Split 8 - Coord	Enum	False	False	False	False	False	False	False	False
Split 9 - Mode	Enum	none	none	none	none	none	none	none	none
Split 9 - Time	Sec	0	0	0	0	0	0	0	0
Split 9 - Coord	Enum	False	False	False	False	False	False	False	False
Split 10 - Mode	Enum	none	none	none	none	none	none	none	none
Split 10 - Time	Sec	0	0	0	0	0	0	0	0
Split 10 - Coord	Enum	False	False	False	False	False	False	False	False
Split 11 - Mode	Enum	none	none	none	none	none	none	none	none
Split 11 - Time	Sec	0	0	0	0	0	0	0	0
Split 11 - Coord	Enum	False	False	False	False	False	False	False	False
Split 12 - Mode	Enum	none	none	none	none	none	none	none	none
Split 12 - Time	Sec	0	0	0	0	0	0	0	0
Split 12 - Coord	Enum	False	False	False	False	False	False	False	False
Split 13 - Mode	Enum	none	none	none	none	none	none	none	none
Split 13 - Time	Sec	0	0	0	0	0	0	0	0
Split 13 - Coord	Enum	False	False	False	False	False	False	False	False
Split 14 - Mode	Enum	none	none	none	none	none	none	none	none
Split 14 - Time	Sec	0	0	0	0	0	0	0	0
Split 14 - Coord	Enum	False	False	False	False	False	False	False	False
Split 15 - Mode	Enum	none	none	none	none	none	none	none	none

Signal Timing Report

Controller Type: Generic ASC

ID: 715364

Location: NOTRE DAME AVE E @ LESLIE ST

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 15 - Time	Sec	0	0	0	0	0	0	0	0
Split 15 - Coord	Enum	False	False	False	False	False	False	False	False
Split 16 - Time	Sec	0	0	0	0	0	0	0	0
Split 16 - Mode	Enum	none	none	none	none	none	none	none	none
Split 16 - Coord	Enum	False	False	False	False	False	False	False	False
Coordination - Splits	Units	Phase 9	Phase 10	Phase 11	Phase 12	Phase 13	Phase 14	Phase 15	Phase 16
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	0	0	0	0	0	0	0
Split 1 - Coord	Enum	False	False	False	False	False	False	False	False
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	0	0	0	0	0	0	0
Split 2 - Coord	Enum	False	False	False	False	False	False	False	False
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	0	0	0	0	0	0	0
Split 3 - Coord	Enum	False	False	False	False	False	False	False	False
Split 4 - Mode	Enum	none	none	none	none	none	none	none	none
Split 4 - Time	Sec	0	0	0	0	0	0	0	0
Split 4 - Coord	Enum	False	False	False	False	False	False	False	False
Split 5 - Mode	Enum	none	none	none	none	none	none	none	none
Split 5 - Time	Sec	0	0	0	0	0	0	0	0
Split 5 - Coord	Enum	False	False	False	False	False	False	False	False
Split 6 - Mode	Enum	none	none	none	none	none	none	none	none
Split 6 - Time	Sec	0	0	0	0	0	0	0	0
Split 6 - Coord	Enum	False	False	False	False	False	False	False	False
Split 7 - Mode	Enum	none	none	none	none	none	none	none	none
Split 7 - Time	Sec	0	0	0	0	0	0	0	0
Split 7 - Coord	Enum	False	False	False	False	False	False	False	False
Split 8 - Mode	Enum	none	none	none	none	none	none	none	none
Split 8 - Time	Sec	0	0	0	0	0	0	0	0
Split 8 - Coord	Enum	False	False	False	False	False	False	False	False
Split 9 - Mode	Enum	none	none	none	none	none	none	none	none
Split 9 - Time	Sec	0	0	0	0	0	0	0	0
Split 9 - Coord	Enum	False	False	False	False	False	False	False	False
Split 10 - Mode	Enum	none	none	none	none	none	none	none	none
Split 10 - Time	Sec	0	0	0	0	0	0	0	0
Split 10 - Coord	Enum	False	False	False	False	False	False	False	False
Split 11 - Mode	Enum	none	none	none	none	none	none	none	none
Split 11 - Time	Sec	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715364

Location: NOTRE DAME AVE E @ LESLIE ST

[illegible]

Time Base - Parameter	Units	Value
Daylight Saving	Enum	enableDaylightSaving
Standard Time Zone	Sec	Node -18000
Pattern Sync	Sec	0

Time Base - Schedule 1-16		1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASON	JFMAMJJASON	_____	_____	_____	_____	JFMAMJJASON	_____
Day of Week	Bit	S_____	-MTWTF-	_____	_____	_____	_____	____S	_____
Day of Month	Bit	12345678901234567 89012345678901	12345678901234567 89012345678901	_____	_____	_____	_____	12345678901234567 89012345678901	_____
Day Plan	Number	1	2	0	0	0	0	7	0

Time Base - Schedule 1-16		Units	9	10	11	12	13	14	15	16
Month	Bit									
Day of Week	Bit									
Day of Month	Bit									
Day Plan	Number									

Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6	Evt 7	Evt 8
Plan 1 Hour	Hour	0	9	21	0	0	0	0	0
Plan 1 Minute	Min	1	0	0	0	0	0	0	0
Plan 1 Action	Number	10	1	10	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715364

Location: NOTRE DAME AVE E @ LESLIE ST

Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6	Evt 7	Evt 8
Plan 2 Hour	Hour	0	6	16	18	21	0	0	0
Plan 2 Minute	Min	1	30	0	0	30	0	0	0
Plan 2 Action	Number	10	1	3	1	10	0	0	0
Plan 3 Hour	Hour	0	0	0	0	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0	0	0
Plan 3 Action	Number	0	0	0	0	0	0	0	0
Plan 4 Hour	Hour	0	0	0	0	0	0	0	0
Plan 4 Minute	Min	0	0	0	0	0	0	0	0
Plan 4 Action	Number	0	0	0	0	0	0	0	0
Plan 5 Hour	Hour	0	0	0	0	0	0	0	0
Plan 5 Minute	Min	0	0	0	0	0	0	0	0
Plan 5 Action	Number	0	0	0	0	0	0	0	0
Plan 6 Hour	Hour	0	0	0	0	0	0	0	0
Plan 6 Minute	Min	0	0	0	0	0	0	0	0
Plan 6 Action	Number	0	0	0	0	0	0	0	0
Plan 7 Hour	Hour	0	8	21	0	0	0	0	0
Plan 7 Minute	Min	1	0	30	0	0	0	0	0
Plan 7 Action	Number	10	1	10	0	0	0	0	0
Plan 8 Hour	Hour	0	0	0	0	0	0	0	0
Plan 8 Minute	Min	0	0	0	0	0	0	0	0
Plan 8 Action	Number	0	0	0	0	0	0	0	0

Time Base - Day Plans	Units	Evt 9	Evt 10	Evt 11	Evt 12	Evt 13	Evt 14	Evt 15	Evt 16
Plan 1 Hour	Hour	0	0	0	0	0	0	0	0
Plan 1 Minute	Min	0	0	0	0	0	0	0	0
Plan 1 Action	Number	0	0	0	0	0	0	0	0
Plan 2 Hour	Hour	0	0	0	0	0	0	0	0
Plan 2 Minute	Min	0	0	0	0	0	0	0	0
Plan 2 Action	Number	0	0	0	0	0	0	0	0
Plan 3 Hour	Hour	0	0	0	0	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0	0	0
Plan 3 Action	Number	0	0	0	0	0	0	0	0
Plan 4 Hour	Hour	0	0	0	0	0	0	0	0
Plan 4 Minute	Min	0	0	0	0	0	0	0	0
Plan 4 Action	Number	0	0	0	0	0	0	0	0
Plan 5 Hour	Hour	0	0	0	0	0	0	0	0
Plan 5 Minute	Min	0	0	0	0	0	0	0	0
Plan 5 Action	Number	0	0	0	0	0	0	0	0
Plan 6 Hour	Hour	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715364

Location: NOTRE DAME AVE E @ LESLIE ST

Time Base - Day Plans	Units	Evt 9	Evt 10	Evt 11	Evt 12	Evt 13	Evt 14	Evt 15	Evt 16
Plan 6 Minute	Min	0	0	0	0	0	0	0	0
Plan 6 Action	Number	0	0	0	0	0	0	0	0
Plan 7 Hour	Hour	0	0	0	0	0	0	0	0
Plan 7 Minute	Min	0	0	0	0	0	0	0	0
Plan 7 Action	Number	0	0	0	0	0	0	0	0
Plan 8 Hour	Hour	0	0	0	0	0	0	0	0
Plan 8 Minute	Min	0	0	0	0	0	0	0	0
Plan 8 Action	Number	0	0	0	0	0	0	0	0
Time Base - Action 1-16	Units	1	2	3	4	5	6	7	8
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Pattern 7	Pattern 8
Aux. Functions	Bit								
Spec. Functions	Bit								
Time Base - Action 1-16	Units	9	10	11	12	13	14	15	16
Pattern	Enum	Pattern 9	Pattern 10	Pattern 11	Pattern 12	Pattern 13	Pattern 14	Pattern 15	Pattern 16
Aux. Functions	Bit								
Spec. Functions	Bit								
Time Base - Daylight Saving	Units	Value							
Begin Month	Enum	absolute							
Begin Occurrence	Enum	second							
Begin DOW	Enum	sunday							
Begin DOM	Date	1							
Begin Seconds	Sec	9943200							
End Month	Enum	november							
End Occurrence	Enum	first							
End DOW	Enum	sunday							
End DOM	Date	1							
End Seconds	Sec	25668000							
Adjustment	Sec	3600							
Ring - Parameter 1-4	Units	Ring 1	Ring 2	Ring 3	Ring 4				
[P2] Sequence 1	Phase (.)	(1,2,4)	(6,8)	()	()				
[P2] Sequence 2	Phase (.)	()	()	()	()				
[P2] Sequence 3	Phase (.)	()	()	()	()				
[P2] Sequence 4	Phase (.)	()	()	()	()				

Signal Timing Report

Controller Type: Generic ASC		ID: 715364				Location: NOTRE DAME AVE E @ LESLIE ST			
Channel - Parameter 1-16	Units	1	2	3	4	5	6	7	8
Control Source	Phase or Overlap	1	2	3	4	5	6	7	8
Control Type	Enum	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle
Flash	Bit	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red
Dimming	Bit								
Channel - Parameter 1-16	Units	9	10	11	12	13	14	15	16
Control Source	Phase or Overlap	2	4	6	0	0	0	0	0
Control Type	Enum	phasePedestrian	phasePedestrian	phasePedestrian	phasePedestrian	overlap	overlap	overlap	overlap
Flash	Bit								
Dimming	Bit								
Overlap - Parameter 1-16	Units	1	2	3	4	5	6	7	8
[P2] Type	Enum	normal	normal	normal	normal	normal	normal	normal	normal
[P2] Included Phases	Phase (.)	()	()	()	()	()	()	()	()
[P2] Modifier Phases	Phase (.)	()	()	()	()	()	()	()	()
Trail Green	Sec	0	0	0	0	0	0	0	0
Trail Yellow	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overlap - Parameter 1-16	Units	9	10	11	12	13	14	15	16
[P2] Type	Enum	normal	normal	normal	normal	normal	normal	normal	normal
[P2] Included Phases	Phase (.)	()	()	()	()	()	()	()	()
[P2] Modifier Phases	Phase (.)	()	()	()	()	()	()	()	()
Trail Green	Sec	0	0	0	0	0	0	0	0
Trail Yellow	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TS2 Port 1 - Parameter 1-1	Units	1							
Device Present	Enum	False							
Frame 40 Enable	Enum	False							

Signal Timing Report

Run Time: 2023-09-26 11:56:32

Device: 715369

Controller Type: Generic ASC		ID: 715369		Location: ARGYLE AVE E @ LLOYD ST					
Phase - Parameter 1-16	Units	1	2	3	4	5	6	7	8
Walk	Sec	0	7	0	0	0	7	0	7
Ped Clear	Sec	0	18	0	0	0	19	0	19
Min Green	Sec	0	50	0	8	5	50	0	8
Passage	Sec	0.0	4.5	0.0	2.5	2.0	4.5	0.0	2.5
Maximum 1	Sec	0	50	0	20	10	50	0	20
Maximum 2	Sec	0	75	0	30	10	75	0	30
Yellow Change	Sec	0.0	4.1	0.0	3.5	3.0	4.1	0.0	3.5
Red Clearance	Sec	0.0	2.8	0.0	3.0	1.0	2.8	0.0	3.0
Red Revert	Sec	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	phaseNotOn	yellowChange	phaseNotOn	phaseNotOn	phaseNotOn	yellowChange	phaseNotOn	phaseNotOn
[P2] Options	Bit	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 3:Non-Actuated 1 5:Non Lock Detector Memory 6:Min. Vehicle Recall 10:Dual Entry Phase	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 5:Non Lock Detector Memory 10:Dual Entry Phase	0:Enabled Phase 5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 3:Non-Actuated 1 5:Non Lock Detector Memory 6:Min. Vehicle Recall 10:Dual Entry Phase	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	0:Enabled Phase 5:Non Lock Detector Memory 10:Dual Entry Phase
[P2] Ring	Ring	0	1	0	1	2	2	0	2
[P2] Concurrency	Phase (.)	()	(5,6)	()	(8)	(2)	(2)	()	(4)
Phase - Parameter 1-16	Units	9	10	11	12	13	14	15	16
Walk	Sec	0	7	0	7	0	7	0	7
Ped Clear	Sec	0	15	0	15	0	15	0	15
Min Green	Sec	4	15	4	15	4	15	4	15
Passage	Sec	2.0	5.0	2.0	5.0	2.0	5.0	2.0	5.0
Maximum 1	Sec	15	45	15	45	15	45	15	45
Maximum 2	Sec	15	45	15	45	15	45	15	45
Yellow Change	Sec	3.0	4.0	3.0	4.0	3.0	4.0	3.0	4.0
Red Clearance	Sec	1.0	2.0	1.0	2.0	1.0	2.0	1.0	2.0

Signal Timing Report

Controller Type: Generic ASC		ID: 715369				Location: ARGYLE AVE E @ LLOYD ST			
Phase - Parameter 1-16	Units	9	10	11	12	13	14	15	16
Red Revert	Sec	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Added Initial	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Initial	Sec	0	0	0	0	0	0	0	0
Time Before Reduction	Sec	0	0	0	0	0	0	0	0
Cars Before Reduction	Veh	0	0	0	0	0	0	0	0
Time To Reduce	Sec	0	0	0	0	0	0	0	0
Reduce By	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Min Gap	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dynamic Max Limit	Sec	0	0	0	0	0	0	0	0
Dynamic Max Step	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
[P2] Start Up	Enum	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn	phaseNotOn
[P2] Options	Bit	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable	5:Non Lock Detector Memory 11:Simultaneous Gap Disable
[P2] Ring	Ring	0	0	0	0	0	0	0	0
[P2] Concurrency	Phase (,)	()	()	()	()	()	()	()	()
Detector - Veh Parameter 1-16	Units	1	2	3	4	5	6	7	8
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	1	2	3	4	5	6	7	8
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	120	120	120	120	120	120	120	120
Max Presence	Min	60	60	60	60	60	60	60	60
Erratic Counts	Counts/Min	120	120	120	120	120	120	120	120
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 1-16	Units	9	10	11	12	13	14	15	16
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type:		Generic ASC		ID: 715369		Location:		ARGYLE AVE E @ LLOYD ST		
Detector - Veh Parameter 1-16		Units	9	10	11	12	13	14	15	16
Max Presence	Min	0	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0	0
Detector - Veh Parameter 17-32		Units	17	18	19	20	21	22	23	24
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	0	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0	0
Detector - Veh Parameter 17-32		Units	25	26	27	28	29	30	31	32
Options	Bit	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call	4:Passage 5:AddedInitial 7:Call
Call Phase	Phase	0	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0	0
Detector - Veh Parameter 33-48		Units	33	34	35	36	37	38	39	40
Options	Bit									
Call Phase	Phase	0	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC		ID: 715369					Location: ARGYLE AVE E @ LLOYD ST		
Detector - Veh Parameter 33-48	Units	33	34	35	36	37	38	39	40
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 33-48	Units	41	42	43	44	45	46	47	48
Options	Bit								
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 49-64	Units	49	50	51	52	53	54	55	56
Options	Bit								
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0
Detector - Veh Parameter 49-64	Units	57	58	59	60	61	62	63	64
Options	Bit								
Call Phase	Phase	0	0	0	0	0	0	0	0
Switch Phase	Phase	0	0	0	0	0	0	0	0
Delay	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extend	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Queue Limit	Sec	0	0	0	0	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	0	0	0	0	0	0	0	0
Erratic Counts	Counts/Min	0	0	0	0	0	0	0	0
Fail Time	Sec	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715369

Location: ARGYLE AVE E @ LLOYD ST

Detector - Vol/Occ Parameter Period	Units	Value							
	Sec	60							
Detector - Ped Parameter 1-8	Units	1	2	3	4	5	6	7	8
Call Phase	Phase	2	4	6	8	0	0	0	0
No Activity	Min	0	0	0	0	0	0	0	0
Max Presence	Min	60	60	60	60	0	0	0	0
Erratic Counts	Counts/Min	120	120	120	120	0	0	0	0
Unit - Parameter	Units	Value							
Start Up Flash	Sec	5							
Auto Ped Clear	Enum	disable							
Back Up Time	Sec	300							
Red Revert	Sec	2.0							
Coordination - Parameter	Units	Value							
Operational Mode	Enum	Automatic							
Correction Mode	Enum	shortway							
Maximum Mode	Enum	maxInhibit							
Force Mode	Enum	fixed							
Coordination - Pattern 1-16	Units	1	2	3	4	5	6	7	8
Cycle Time	Sec	0	0	0	0	0	0	0	0
Offset	Sec	0	0	0	0	0	0	0	0
Split	Split	1	2	3	4	5	6	7	8
Sequence	Sequence	1	1	1	1	1	1	1	1
Coordination - Pattern 1-16	Units	9	10	11	12	13	14	15	16
Cycle Time	Sec	0	0	0	0	0	0	0	0
Offset	Sec	0	0	0	0	0	0	0	0
Split	Split	9	10	11	12	13	14	15	16
Sequence	Sequence	1	1	1	1	1	1	1	1
Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 1 - Mode	Enum	none	minimumVehicleReca	none	none	none	minimumVehicleReca	none	none
Split 1 - Time	Sec	0	0	0	0	0	0	0	0
Split 1 - Coord	Enum	False	False	False	False	False	False	False	False
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715369

Location: ARGYLE AVE E @ LLOYD ST

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 2 - Coord	Enum	False	False	False	False	False	False	False	False
Split 3 - Mode	Enum	none	minimumVehicleReca II	none	none	none	minimumVehicleReca II	none	none
Split 3 - Time	Sec	0	0	0	0	0	0	0	0
Split 3 - Coord	Enum	False	False	False	False	False	False	False	False
Split 4 - Mode	Enum	none	minimumVehicleReca II	none	none	none	minimumVehicleReca II	none	none
Split 4 - Time	Sec	0	0	0	0	0	0	0	0
Split 4 - Coord	Enum	False	False	False	False	False	False	False	False
Split 5 - Mode	Enum	none	minimumVehicleReca II	none	none	none	minimumVehicleReca II	none	none
Split 5 - Time	Sec	0	0	0	0	0	0	0	0
Split 5 - Coord	Enum	False	False	False	False	False	False	False	False
Split 6 - Mode	Enum	none	none	none	none	none	none	none	none
Split 6 - Time	Sec	0	0	0	0	0	0	0	0
Split 6 - Coord	Enum	False	False	False	False	False	False	False	False
Split 7 - Mode	Enum	none	none	none	none	none	none	none	none
Split 7 - Time	Sec	0	0	0	0	0	0	0	0
Split 7 - Coord	Enum	False	False	False	False	False	False	False	False
Split 8 - Mode	Enum	none	none	none	none	none	none	none	none
Split 8 - Time	Sec	0	0	0	0	0	0	0	0
Split 8 - Coord	Enum	False	False	False	False	False	False	False	False
Split 9 - Mode	Enum	none	none	none	none	none	none	none	none
Split 9 - Time	Sec	0	0	0	0	0	0	0	0
Split 9 - Coord	Enum	False	False	False	False	False	False	False	False
Split 10 - Mode	Enum	none	none	none	none	none	none	none	none
Split 10 - Time	Sec	0	0	0	0	0	0	0	0
Split 10 - Coord	Enum	False	False	False	False	False	False	False	False
Split 11 - Mode	Enum	none	none	none	none	none	none	none	none
Split 11 - Time	Sec	0	0	0	0	0	0	0	0
Split 11 - Coord	Enum	False	False	False	False	False	False	False	False
Split 12 - Mode	Enum	none	none	none	none	none	none	none	none
Split 12 - Time	Sec	0	0	0	0	0	0	0	0
Split 12 - Coord	Enum	False	False	False	False	False	False	False	False
Split 13 - Mode	Enum	none	none	none	none	none	none	none	none
Split 13 - Time	Sec	0	0	0	0	0	0	0	0
Split 13 - Coord	Enum	False	False	False	False	False	False	False	False
Split 14 - Mode	Enum	none	none	none	none	none	none	none	none
Split 14 - Time	Sec	0	0	0	0	0	0	0	0
Split 14 - Coord	Enum	False	False	False	False	False	False	False	False
Split 15 - Mode	Enum	none	none	none	none	none	none	none	none

Signal Timing Report

Controller Type: Generic ASC

ID: 715369

Location: ARGYLE AVE E @ LLOYD ST

Coordination - Splits	Units	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7	Phase 8
Split 15 - Time	Sec	0	0	0	0	0	0	0	0
Split 15 - Coord	Enum	False	False	False	False	False	False	False	False
Split 16 - Time	Sec	0	0	0	0	0	0	0	0
Split 16 - Mode	Enum	none	none	none	none	none	none	none	none
Split 16 - Coord	Enum	False	False	False	False	False	False	False	False
Coordination - Splits	Units	Phase 9	Phase 10	Phase 11	Phase 12	Phase 13	Phase 14	Phase 15	Phase 16
Split 1 - Mode	Enum	none	none	none	none	none	none	none	none
Split 1 - Time	Sec	0	0	0	0	0	0	0	0
Split 1 - Coord	Enum	False	False	False	False	False	False	False	False
Split 2 - Mode	Enum	none	none	none	none	none	none	none	none
Split 2 - Time	Sec	0	0	0	0	0	0	0	0
Split 2 - Coord	Enum	False	False	False	False	False	False	False	False
Split 3 - Mode	Enum	none	none	none	none	none	none	none	none
Split 3 - Time	Sec	0	0	0	0	0	0	0	0
Split 3 - Coord	Enum	False	False	False	False	False	False	False	False
Split 4 - Mode	Enum	none	none	none	none	none	none	none	none
Split 4 - Time	Sec	0	0	0	0	0	0	0	0
Split 4 - Coord	Enum	False	False	False	False	False	False	False	False
Split 5 - Mode	Enum	none	none	none	none	none	none	none	none
Split 5 - Time	Sec	0	0	0	0	0	0	0	0
Split 5 - Coord	Enum	False	False	False	False	False	False	False	False
Split 6 - Mode	Enum	none	none	none	none	none	none	none	none
Split 6 - Time	Sec	0	0	0	0	0	0	0	0
Split 6 - Coord	Enum	False	False	False	False	False	False	False	False
Split 7 - Mode	Enum	none	none	none	none	none	none	none	none
Split 7 - Time	Sec	0	0	0	0	0	0	0	0
Split 7 - Coord	Enum	False	False	False	False	False	False	False	False
Split 8 - Mode	Enum	none	none	none	none	none	none	none	none
Split 8 - Time	Sec	0	0	0	0	0	0	0	0
Split 8 - Coord	Enum	False	False	False	False	False	False	False	False
Split 9 - Mode	Enum	none	none	none	none	none	none	none	none
Split 9 - Time	Sec	0	0	0	0	0	0	0	0
Split 9 - Coord	Enum	False	False	False	False	False	False	False	False
Split 10 - Mode	Enum	none	none	none	none	none	none	none	none
Split 10 - Time	Sec	0	0	0	0	0	0	0	0
Split 10 - Coord	Enum	False	False	False	False	False	False	False	False
Split 11 - Mode	Enum	none	none	none	none	none	none	none	none
Split 11 - Time	Sec	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC		ID: 715369				Location: ARGYLE AVE E @ LLOYD ST			
Coordination - Splits	Units	Phase 9	Phase 10	Phase 11	Phase 12	Phase 13	Phase 14	Phase 15	Phase 16
Split 11 - Coord	Enum	False	False	False	False	False	False	False	False
Split 12 - Mode	Enum	none	none	none	none	none	none	none	none
Split 12 - Time	Sec	0	0	0	0	0	0	0	0
Split 12 - Coord	Enum	False	False	False	False	False	False	False	False
Split 13 - Mode	Enum	none	none	none	none	none	none	none	none
Split 13 - Time	Sec	0	0	0	0	0	0	0	0
Split 13 - Coord	Enum	False	False	False	False	False	False	False	False
Split 14 - Mode	Enum	none	none	none	none	none	none	none	none
Split 14 - Time	Sec	0	0	0	0	0	0	0	0
Split 14 - Coord	Enum	False	False	False	False	False	False	False	False
Split 15 - Mode	Enum	none	none	none	none	none	none	none	none
Split 15 - Time	Sec	0	0	0	0	0	0	0	0
Split 15 - Coord	Enum	False	False	False	False	False	False	False	False
Split 16 - Time	Sec	0	0	0	0	0	0	0	0
Split 16 - Mode	Enum	none	none	none	none	none	none	none	none
Split 16 - Coord	Enum	False	False	False	False	False	False	False	False
Time Base - Parameter	Units	Value							
Daylight Saving	Enum	enableDaylightSaving							
Standard Time Zone	Sec	-18000							
Pattern Sync	Sec	0							
Time Base - Schedule 1-16	Units	1	2	3	4	5	6	7	8
Month	Bit	JFMAMJJASOND	JFMAMJJASOND	_____	_____	_____	_____	JFMAMJJASOND	_____
Day of Week	Bit	S_____	-MTWTF-	_____	_____	_____	_____	____S	_____
Day of Month	Bit	1234567890123456789012345678901	1234567890123456789012345678901	_____	_____	_____	_____	1234567890123456789012345678901	_____
Day Plan	Number	1	2	0	0	0	0	7	0
Time Base - Schedule 1-16	Units	9	10	11	12	13	14	15	16
Month	Bit	_____	_____	_____	_____	_____	_____	_____	_____
Day of Week	Bit	_____	_____	_____	_____	_____	_____	_____	_____
Day of Month	Bit	_____	_____	_____	_____	_____	_____	_____	_____
Day Plan	Number	0	0	0	0	0	0	0	0
Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6	Evt 7	Evt 8
Plan 1 Hour	Hour	0	0	0	0	0	0	0	0
Plan 1 Minute	Min	1	0	0	0	0	0	0	0
Plan 1 Action	Number	10	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC

ID: 715369

Location: ARGYLE AVE E @ LLOYD ST

Time Base - Day Plans	Units	Evt 1	Evt 2	Evt 3	Evt 4	Evt 5	Evt 6	Evt 7	Evt 8
Plan 2 Hour	Hour	0	15	17	0	0	0	0	0
Plan 2 Minute	Min	1	0	37	0	0	0	0	0
Plan 2 Action	Number	10	11	10	0	0	0	0	0
Plan 3 Hour	Hour	0	0	0	0	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0	0	0
Plan 3 Action	Number	0	0	0	0	0	0	0	0
Plan 4 Hour	Hour	0	0	0	0	0	0	0	0
Plan 4 Minute	Min	0	0	0	0	0	0	0	0
Plan 4 Action	Number	0	0	0	0	0	0	0	0
Plan 5 Hour	Hour	0	0	0	0	0	0	0	0
Plan 5 Minute	Min	0	0	0	0	0	0	0	0
Plan 5 Action	Number	0	0	0	0	0	0	0	0
Plan 6 Hour	Hour	0	0	0	0	0	0	0	0
Plan 6 Minute	Min	0	0	0	0	0	0	0	0
Plan 6 Action	Number	0	0	0	0	0	0	0	0
Plan 7 Hour	Hour	0	0	0	0	0	0	0	0
Plan 7 Minute	Min	1	0	0	0	0	0	0	0
Plan 7 Action	Number	10	0	0	0	0	0	0	0
Plan 8 Hour	Hour	0	0	0	0	0	0	0	0
Plan 8 Minute	Min	0	0	0	0	0	0	0	0
Plan 8 Action	Number	0	0	0	0	0	0	0	0

Time Base - Day Plans	Units	Evt 9	Evt 10	Evt 11	Evt 12	Evt 13	Evt 14	Evt 15	Evt 16
Plan 1 Hour	Hour	0	0	0	0	0	0	0	0
Plan 1 Minute	Min	0	0	0	0	0	0	0	0
Plan 1 Action	Number	0	0	0	0	0	0	0	0
Plan 2 Hour	Hour	0	0	0	0	0	0	0	0
Plan 2 Minute	Min	0	0	0	0	0	0	0	0
Plan 2 Action	Number	0	0	0	0	0	0	0	0
Plan 3 Hour	Hour	0	0	0	0	0	0	0	0
Plan 3 Minute	Min	0	0	0	0	0	0	0	0
Plan 3 Action	Number	0	0	0	0	0	0	0	0
Plan 4 Hour	Hour	0	0	0	0	0	0	0	0
Plan 4 Minute	Min	0	0	0	0	0	0	0	0
Plan 4 Action	Number	0	0	0	0	0	0	0	0
Plan 5 Hour	Hour	0	0	0	0	0	0	0	0
Plan 5 Minute	Min	0	0	0	0	0	0	0	0
Plan 5 Action	Number	0	0	0	0	0	0	0	0
Plan 6 Hour	Hour	0	0	0	0	0	0	0	0

Signal Timing Report

Controller Type: Generic ASC		ID: 715369		Location: ARGYLE AVE E @ LLOYD ST					
Time Base - Day Plans	Units	Evt 9	Evt 10	Evt 11	Evt 12	Evt 13	Evt 14	Evt 15	Evt 16
Plan 6 Minute	Min	0	0	0	0	0	0	0	0
Plan 6 Action	Number	0	0	0	0	0	0	0	0
Plan 7 Hour	Hour	0	0	0	0	0	0	0	0
Plan 7 Minute	Min	0	0	0	0	0	0	0	0
Plan 7 Action	Number	0	0	0	0	0	0	0	0
Plan 8 Hour	Hour	0	0	0	0	0	0	0	0
Plan 8 Minute	Min	0	0	0	0	0	0	0	0
Plan 8 Action	Number	0	0	0	0	0	0	0	0
Time Base - Action 1-16	Units	1	2	3	4	5	6	7	8
Pattern	Enum	Pattern 1	Pattern 2	Pattern 3	Pattern 4	Pattern 5	Pattern 6	Pattern 7	Pattern 8
Aux. Functions	Bit								
Spec. Functions	Bit								
Time Base - Action 1-16	Units	9	10	11	12	13	14	15	16
Pattern	Enum	Pattern 9	Pattern 10	Pattern 11	Pattern 12	Pattern 13	Pattern 14	Pattern 15	Pattern 16
Aux. Functions	Bit								
Spec. Functions	Bit								
Time Base - Daylight Saving	Units	Value							
Begin Month	Enum	absolute							
Begin Occurrence	Enum	second							
Begin DOW	Enum	sunday							
Begin DOM	Date	1							
Begin Seconds	Sec	9943200							
End Month	Enum	november							
End Occurrence	Enum	first							
End DOW	Enum	sunday							
End DOM	Date	1							
End Seconds	Sec	25668000							
Adjustment	Sec	3600							
Ring - Parameter 1-4	Units	Ring 1	Ring 2	Ring 3	Ring 4				
[P2] Sequence 1	Phase (.)	(2,4)	(5,6,8)	()	()				
[P2] Sequence 2	Phase (.)	()	()	()	()				
[P2] Sequence 3	Phase (.)	()	()	()	()				
[P2] Sequence 4	Phase (.)	()	()	()	()				

Signal Timing Report

Controller Type: Generic ASC		ID: 715369		Location: ARGYLE AVE E @ LLOYD ST					
Channel - Parameter 1-16	Units	1	2	3	4	5	6	7	8
Control Source	Phase or Overlap	1	2	3	4	5	6	7	8
Control Type	Enum	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle	phaseVehicle
Flash	Bit	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red	2:Flash Red
Dimming	Bit								
Channel - Parameter 1-16	Units	9	10	11	12	13	14	15	16
Control Source	Phase or Overlap	2	0	6	8	0	0	0	0
Control Type	Enum	phasePedestrian	phasePedestrian	phasePedestrian	phasePedestrian	overlap	overlap	overlap	overlap
Flash	Bit								
Dimming	Bit								
Overlap - Parameter 1-16	Units	1	2	3	4	5	6	7	8
[P2] Type	Enum	normal	normal	normal	normal	normal	normal	normal	normal
[P2] Included Phases	Phase (.)	()	()	()	()	()	()	()	()
[P2] Modifier Phases	Phase (.)	()	()	()	()	()	()	()	()
Trail Green	Sec	0	0	0	0	0	0	0	0
Trail Yellow	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Overlap - Parameter 1-16	Units	9	10	11	12	13	14	15	16
[P2] Type	Enum	normal	normal	normal	normal	normal	normal	normal	normal
[P2] Included Phases	Phase (.)	()	()	()	()	()	()	()	()
[P2] Modifier Phases	Phase (.)	()	()	()	()	()	()	()	()
Trail Green	Sec	0	0	0	0	0	0	0	0
Trail Yellow	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trail Red	Sec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TS2 Port 1 - Parameter 1-1	Units	1							
Device Present	Enum	False							
Frame 40 Enable	Enum	False							

C

Appendix C: Existing Traffic Operations

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

AM Peak Hour
Existing conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	139	0	3	4	0	2	17	864	1	2	920	115
Future Volume (vph)	139	0	3	4	0	2	17	864	1	2	920	115
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.95		1.00	1.00		1.00	0.98	
Flt Protected		0.95			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1771			1747		1703	3469		1805	3404	
Flt Permitted		0.72			0.82		0.25	1.00		0.18	1.00	
Satd. Flow (perm)		1341			1474		454	3469		342	3404	
Peak-hour factor, PHF	0.77	0.25	0.75	0.50	0.25	0.50	0.71	0.78	0.25	0.50	0.94	0.80
Adj. Flow (vph)	181	0	4	8	0	4	24	1108	4	4	979	144
RTOR Reduction (vph)	0	80	0	0	10	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	105	0	0	2	0	24	1112	0	4	1111	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	6%	4%	0%	0%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.9			11.9		31.6	31.6		36.3	36.3	
Effective Green, g (s)		9.9			11.9		31.6	31.6		36.3	36.3	
Actuated g/C Ratio		0.17			0.20		0.53	0.53		0.61	0.61	
Clearance Time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5		2.0	4.5	
Lane Grp Cap (vph)		222			294		240	1839		225	2073	
v/s Ratio Prot								c0.32		0.00	c0.33	
v/s Ratio Perm		c0.08			0.00		0.05			0.01		
v/c Ratio		0.47			0.01		0.10	0.60		0.02	0.54	
Uniform Delay, d1		22.5			19.1		6.9	9.7		5.5	6.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.2			0.0		0.3	0.7		0.0	0.4	
Delay (s)		23.6			19.1		7.3	10.4		5.5	7.2	
Level of Service		C			B		A	B		A	A	
Approach Delay (s)		23.6			19.1			10.4			7.2	
Approach LOS		C			B			B			A	
Intersection Summary												
HCM 2000 Control Delay		9.9										
HCM 2000 Level of Service										A		
HCM 2000 Volume to Capacity ratio		0.59										
Actuated Cycle Length (s)		59.6								17.4		
Intersection Capacity Utilization		50.9%								A		
ICU Level of Service												
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

AM Peak Hour
Existing conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	0	10	40	1	101	9	554	17	115	942	0
Future Volume (vph)	4	0	10	40	1	101	9	554	17	115	942	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.90			0.91		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1676			1674		1798	4912		1781	4988	
Flt Permitted		0.89			0.89		0.26	1.00		0.35	1.00	
Satd. Flow (perm)		1517			1509		501	4912		650	4988	
Peak-hour factor, PHF	0.50	0.25	0.50	0.77	0.25	0.87	0.32	0.86	0.71	0.76	0.91	0.25
Adj. Flow (vph)	8	0	20	52	4	116	28	644	24	151	1035	0
RTOR Reduction (vph)	0	24	0	0	99	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	4	0	0	73	0	28	664	0	151	1035	0
Confl. Peds. (#/hr)			2	2			6		12	12		6
Heavy Vehicles (%)	0%	0%	0%	3%	0%	1%	0%	5%	0%	1%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.0			10.0		35.0	35.0		45.0	45.0	
Effective Green, g (s)		10.0			10.0		35.0	35.0		45.0	45.0	
Actuated g/C Ratio		0.15			0.15		0.52	0.52		0.67	0.67	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		225			224		260	2558		536	3340	
v/s Ratio Prot								0.14		0.03	c0.21	
v/s Ratio Perm		0.00			c0.05		0.06			0.16		
v/c Ratio		0.02			0.33		0.11	0.26		0.28	0.31	
Uniform Delay, d1		24.4			25.6		8.2	8.9		4.2	4.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.2		0.8	0.2		0.3	0.2	
Delay (s)		24.5			26.8		9.0	9.2		4.4	4.9	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		24.5			26.8			9.2			4.8	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.3										
HCM 2000 Volume to Capacity ratio		0.34										
Actuated Cycle Length (s)		67.2								16.2		
Intersection Capacity Utilization		61.2%								B		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis 1: Mont Adam St & Sunrise Ridge Dr

AM Peak Hour
Existing conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WT		BT			BT
Traffic Volume (veh/h)	32	14	130	10	4	140
Future Volume (Veh/h)	32	14	130	10	4	140
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.70	0.88	0.50	1.00	0.85
Hourly flow rate (vph)	40	20	148	20	4	165
Pedestrians	1		1			1
Lane Width (m)	3.6		3.6			3.6
Walking Speed (m/s)	1.2		1.2			1.2
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	333	160			169	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	333	160			169	
tC, single (s)	6.5	6.2			4.3	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	94	98			100	
cM capacity (veh/h)	645	889			1279	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	60	168	169			
Volume Left	40	0	4			
Volume Right	20	20	0			
cSH	710	1700	1279			
Volume to Capacity	0.08	0.10	0.00			
Queue Length 95th (m)	2.2	0.0	0.1			
Control Delay (s)	10.5	0.0	0.2			
Lane LOS	B		A			
Approach Delay (s)	10.5	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			20.9%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

AM Peak Hour
Existing conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	3	0	3	140	0	1	0	149	18	1
Future Volume (Veh/h)	2	4	3	0	3	140	0	1	0	149	18	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.38	0.25	0.75	0.85	0.25	0.25	0.25	0.85	0.75	0.25
Hourly flow rate (vph)	4	8	8	0	4	165	0	4	0	175	24	4
Pedestrians		7									2	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		1									0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	556	387	33	392	389	6	35			4		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	556	387	33	392	389	6	35			4		
tC, single (s)	7.1	6.5	6.5	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.6	3.5	4.3	3.3	2.2			2.2		
p0 queue free %	99	98	99	100	99	85	100			89		
cM capacity (veh/h)	339	488	953	511	444	1069	1580			1624		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	20	169	4	203								
Volume Left	4	0	0	175								
Volume Right	8	165	0	4								
cSH	547	1035	1580	1624								
Volume to Capacity	0.04	0.16	0.00	0.11								
Queue Length 95th (m)	0.9	4.7	0.0	2.9								
Control Delay (s)	11.8	9.2	0.0	6.6								
Lane LOS	B	A		A								
Approach Delay (s)	11.8	9.2	0.0	6.6								
Approach LOS	B	A										
Intersection Summary												
Average Delay			7.9									
Intersection Capacity Utilization			31.9%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

AM Peak Hour
Existing conditions

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Sign Control		Stop			Stop			Stop			Stop									
Traffic Volume (vph)	7	7	10	3	9	4	13	118	16	13	129	5								
Future Volume (vph)	7	7	10	3	9	4	13	118	16	13	129	5								
Peak Hour Factor	0.88	0.44	0.83	0.75	0.45	0.50	0.81	0.87	0.67	0.65	0.81	0.63								
Hourly flow rate (vph)	8	16	12	4	20	8	16	136	24	20	159	8								
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total (vph)	36	32	176	187																
Volume Left (vph)	8	4	16	20																
Volume Right (vph)	12	8	24	8																
Hadj (s)	-0.05	0.20	-0.01	0.02																
Departure Headway (s)	4.7	5.0	4.3	4.3																
Degree Utilization, x	0.05	0.04	0.21	0.22																
Capacity (veh/h)	700	665	821	812																
Control Delay (s)	7.9	8.2	8.4	8.5																
Approach Delay (s)	7.9	8.2	8.4	8.5																
Approach LOS	A	A	A	A																
Intersection Summary																				
Delay			8.4																	
Level of Service			A																	
Intersection Capacity Utilization			23.4%	ICU Level of Service		A														
Analysis Period (min)			15																	

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

AM Peak Hour
Existing conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		 				
Traffic Volume (veh/h)	0	0	340	1	0	23
Future Volume (Veh/h)	0	0	340	1	0	23
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.88	0.25	0.25	0.72
Hourly flow rate (vph)	0	0	386	4	0	32
Pedestrians		5			5	
Lane Width (m)		3.6			3.6	
Walking Speed (m/s)		1.2			1.2	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)			372			
pX, platoon unblocked						
vC, conflicting volume	395				393	398
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	395				393	398
tC, single (s)	4.1				6.8	7.1
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.4
p0 queue free %	100				100	94
cM capacity (veh/h)	1170				587	577
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	390	32		
Volume Left	0	0	0	0		
Volume Right	0	0	4	32		
cSH	1700	1700	1700	577		
Volume to Capacity	0.00	0.00	0.23	0.06		
Queue Length 95th (m)	0.0	0.0	0.0	1.4		
Control Delay (s)	0.0	0.0	0.0	11.6		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	11.6		
Approach LOS				B		
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			29.5%	ICU Level of Service	A	
Analysis Period (min)			15			

SimTraffic Simulation Summary
AM Peak Hour

10-16-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	650	677	639	643	594	640
Vehs Exited	639	647	633	629	583	629
Starting Vehs	49	61	49	56	51	51
Ending Vehs	60	91	55	70	62	65
Travel Distance (km)	369	388	363	364	336	364
Travel Time (hr)	10.1	11.7	10.0	12.4	9.0	10.6
Total Delay (hr)	2.2	3.4	2.2	4.6	1.9	2.9
Total Stops	378	493	389	458	336	412
Fuel Used (l)	31.3	34.2	30.8	33.0	28.2	31.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00					
End Time	7:10					
Total Time (min)	10					
Volumes adjusted by Growth Factors.						
Run Number	1	2	3	4	5	Avg
Vehs Entered	650	677	639	643	594	640
Vehs Exited	639	647	633	629	583	629
Starting Vehs	49	61	49	56	51	51
Ending Vehs	60	91	55	70	62	65
Travel Distance (km)	369	388	363	364	336	364
Travel Time (hr)	10.1	11.7	10.0	12.4	9.0	10.6
Total Delay (hr)	2.2	3.4	2.2	4.6	1.9	2.9
Total Stops	378	493	389	458	336	412
Fuel Used (l)	31.3	34.2	30.8	33.0	28.2	31.5

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBR	WBT	WBR	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	WBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.1	0.0	0.0	0.0	0.0	0.1	0.2	0.0	0.0	1.1	0.1	1.7

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.6

Total Network Performance

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	2.8

Queuing and Blocking Report
AM Peak Hour

10-16-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB
Directions Served	LR
Maximum Queue (m)	10.6
Average Queue (m)	6.2
95th Queue (m)	13.2
Link Distance (m)	175.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	11.3	15.7
Average Queue (m)	2.9	11.0
95th Queue (m)	13.4	17.4
Link Distance (m)	125.3	296.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.9	8.2	15.6	17.2
Average Queue (m)	5.6	3.0	10.3	11.3
95th Queue (m)	12.6	10.5	16.1	18.2
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

AM Peak Hour

10-16-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement

Directions Served

Maximum Queue (m)

Average Queue (m)

95th Queue (m)

Link Distance (m)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (m)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (m)	25.6	6.3	13.6	39.2	19.6	5.4	71.6	64.7
Average Queue (m)	18.5	1.5	7.9	25.4	9.1	1.1	50.5	42.0
95th Queue (m)	29.1	6.4	23.2	47.4	23.0	9.8	92.4	91.5
Link Distance (m)	296.5	28.2					258.5	258.5
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			45.0			20.0		
Storage Blk Time (%)				1			45	
Queuing Penalty (veh)				0			1	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	T
Maximum Queue (m)	9.5	27.0	3.3	39.0	16.7	8.8	14.9	41.2	30.9	11.1
Average Queue (m)	3.9	16.2	1.2	26.0	10.9	3.1	10.9	28.1	17.4	4.9
95th Queue (m)	11.3	29.8	5.8	45.0	18.4	10.6	17.9	45.9	35.0	14.6
Link Distance (m)	76.6	228.2		226.3	226.3	226.3		242.2	242.2	242.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)									2	
Queuing Penalty (veh)									3	

Network Summary

Network wide Queuing Penalty: 4

Actuated Signals, Observed Splits
AM Peak Hour

10-16-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL NBTL	EBTL	SBTL	WBTL	
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	45.4	7.8	45.4	9.8
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	88	0	88	0
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL NBTL	EBTL	SBTL	WBTL	
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	5.7	42.5	14.8	60.0	14.8
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	25	0	14	14	14
Cycles @ Minimum (%)	25	0	29	0	29
Cycles Maxed Out (%)	13	100	0	86	0
Cycles with Peds (%)	0	13	0	14	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

PM Peak Hour
Existing conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	221	0	2	2	0	0	27	1544	1	0	1290	191
Future Volume (vph)	221	0	2	2	0	0	27	1544	1	0	1290	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9			6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		1.00			1.00		1.00	1.00			0.98	
Flt Protected		0.95			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1758			1805		1625	3538			3453	
Flt Permitted		0.73			0.76		0.09	1.00			1.00	
Satd. Flow (perm)		1345			1453		158	3538			3453	
Peak-hour factor, PHF	0.78	0.25	0.25	0.50	0.25	0.25	0.84	0.91	0.25	0.25	0.95	0.83
Adj. Flow (vph)	283	0	8	4	0	0	32	1697	4	0	1358	230
RTOR Reduction (vph)	0	75	0	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	216	0	0	4	0	32	1701	0	0	1573	0
Confl. Peds. (#/hr)	3						3	4		1	1	4
Confl. Bikes (#/hr)							3					1
Heavy Vehicles (%)	1%	0%	50%	0%	0%	0%	11%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.8			17.8		44.1	44.1			44.1	
Effective Green, g (s)		15.8			17.8		44.1	44.1			44.1	
Actuated g/C Ratio		0.22			0.24		0.60	0.60			0.60	
Clearance Time (s)		6.5			4.5		6.9	6.9			6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5			4.5	
Lane Grp Cap (vph)		289			352		95	2128			2077	
v/s Ratio Prot								c0.48			0.46	
v/s Ratio Perm		c0.16			0.00		0.20					
v/c Ratio		0.75			0.01		0.34	0.80			0.76	
Uniform Delay, d1		26.9			21.1		7.3	11.2			10.7	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		9.5			0.0		3.6	2.4			1.8	
Delay (s)		36.4			21.1		10.9	13.7			12.5	
Level of Service		D			C		B	B			B	
Approach Delay (s)		36.4			21.1			13.6			12.5	
Approach LOS		D			C			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.0										
HCM 2000 Volume to Capacity ratio		0.84										
Actuated Cycle Length (s)		73.3										
Intersection Capacity Utilization		65.5%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

PM Peak Hour
Existing conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↗	↑↑↑		↖	↑↑↑	
Traffic Volume (vph)	5	1	8	57	0	194	2	1295	41	153	921	1
Future Volume (vph)	5	1	8	57	0	194	2	1295	41	153	921	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		1.00	1.00	
Frt		0.95			0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1745			1637		1779	5049		1787	5081	
Flt Permitted		0.81			0.90		0.28	1.00		0.11	1.00	
Satd. Flow (perm)		1437			1497		528	5049		203	5081	
Peak-hour factor, PHF	0.63	0.25	1.00	0.74	0.25	0.92	0.50	0.90	0.91	0.90	0.95	0.25
Adj. Flow (vph)	8	4	8	77	0	211	4	1439	45	170	969	4
RTOR Reduction (vph)	0	7	0	0	138	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	13	0	0	150	0	4	1480	0	170	973	0
Confl. Peds. (#/hr)	9		10	10		9	19		20	20		19
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	2%	3%	1%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.9			12.9		34.3	34.3		44.3	44.3	
Effective Green, g (s)		12.9			12.9		34.3	34.3		44.3	44.3	
Actuated g/C Ratio		0.19			0.19		0.49	0.49		0.64	0.64	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		267			278		260	2495		266	3243	
v/s Ratio Prot								0.29		c0.06	0.19	
v/s Ratio Perm		0.01			c0.10		0.01			c0.35		
v/c Ratio		0.05			0.54		0.02	0.59		0.64	0.30	
Uniform Delay, d1		23.2			25.6		8.9	12.6		7.8	5.6	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			2.5		0.1	1.0		5.0	0.2	
Delay (s)		23.3			28.1		9.1	13.6		12.8	5.9	
Level of Service		C			C		A	B		B	A	
Approach Delay (s)		23.3			28.1			13.6			6.9	
Approach LOS		C			C			B			A	
Intersection Summary												
HCM 2000 Control Delay			12.5									
HCM 2000 Volume to Capacity ratio			0.65									
Actuated Cycle Length (s)			69.4									
Intersection Capacity Utilization			68.6%									
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

PM Peak Hour
Existing conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	25	10	205	27	18	213
Future Volume (Veh/h)	25	10	205	27	18	213
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.83	0.88	0.59	0.90	0.85
Hourly flow rate (vph)	36	12	233	46	20	251
Pedestrians			1			
Lane Width (m)			3.6			
Walking Speed (m/s)			1.2			
Percent Blockage			0			
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	548	256			279	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	548	256			279	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	93	98			98	
cM capacity (veh/h)	493	788			1295	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	48	279	271			
Volume Left	36	0	20			
Volume Right	12	46	0			
cSH	544	1700	1295			
Volume to Capacity	0.09	0.16	0.02			
Queue Length 95th (m)	2.3	0.0	0.4			
Control Delay (s)	12.3	0.0	0.7			
Lane LOS	B		A			
Approach Delay (s)	12.3	0.0	0.7			
Approach LOS	B					
Intersection Summary						
Average Delay		1.3				
Intersection Capacity Utilization		36.1%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

PM Peak Hour
Existing conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	7	14	3	3	5	228	0	1	1	207	26	6
Future Volume (Veh/h)	7	14	3	3	5	228	0	1	1	207	26	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.58	0.58	0.38	0.38	0.42	0.88	0.25	0.25	0.25	0.77	0.59	0.30
Hourly flow rate (vph)	12	24	8	8	12	259	0	4	4	269	44	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	863	600	54	618	608	6	64			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	863	600	54	618	608	6	64			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	93	93	99	98	97	76	100			83		
cM capacity (veh/h)	179	348	1019	332	345	1080	1551			1625		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	44	279	8	333								
Volume Left	12	8	0	269								
Volume Right	8	259	4	20								
cSH	306	934	1551	1625								
Volume to Capacity	0.14	0.30	0.00	0.17								
Queue Length 95th (m)	4.0	10.1	0.0	4.7								
Control Delay (s)	18.7	10.5	0.0	6.4								
Lane LOS	C	B		A								
Approach Delay (s)	18.7	10.5	0.0	6.4								
Approach LOS	C	B										
Intersection Summary												
Average Delay			8.9									
Intersection Capacity Utilization			41.2%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

PM Peak Hour
Existing conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	14	11	47	7	8	8	17	193	9	10	168	14
Future Volume (vph)	14	11	47	7	8	8	17	193	9	10	168	14
Peak Hour Factor	0.58	0.55	0.78	0.44	0.67	0.67	0.61	0.93	0.56	0.83	0.88	0.70
Hourly flow rate (vph)	24	20	60	16	12	12	28	208	16	12	191	20
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	104	40	252	223								
Volume Left (vph)	24	16	28	12								
Volume Right (vph)	60	12	16	20								
Hadj (s)	-0.30	-0.10	0.01	-0.04								
Departure Headway (s)	4.8	5.0	4.5	4.5								
Degree Utilization, x	0.14	0.06	0.32	0.28								
Capacity (veh/h)	683	633	763	760								
Control Delay (s)	8.5	8.3	9.6	9.3								
Approach Delay (s)	8.5	8.3	9.6	9.3								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			9.2									
Level of Service			A									
Intersection Capacity Utilization			28.8%	ICU Level of Service				A				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

PM Peak Hour
Existing conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔			↗↗
Traffic Volume (veh/h)	0	0	449	0	0	33
Future Volume (Veh/h)	0	0	449	0	0	33
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.91	0.25	0.25	0.69
Hourly flow rate (vph)	0	0	493	0	0	48
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)			372			
pX, platoon unblocked	0.94				0.94	0.94
vC, conflicting volume	493				493	493
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	433				433	433
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	91
cM capacity (veh/h)	1073				525	544
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	493	48		
Volume Left	0	0	0	0		
Volume Right	0	0	0	48		
cSH	1700	1700	1700	544		
Volume to Capacity	0.00	0.00	0.29	0.09		
Queue Length 95th (m)	0.0	0.0	0.0	2.3		
Control Delay (s)	0.0	0.0	0.0	12.3		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.3		
Approach LOS				B		
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			33.6%		ICU Level of Service	A
Analysis Period (min)			15			

SimTraffic Simulation Summary
PM Peak Hour

10-16-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	940	980	925	892	937	931
Vehs Exited	900	965	878	839	891	894
Starting Vehs	91	129	94	126	91	105
Ending Vehs	131	144	141	179	137	147
Travel Distance (km)	503	519	488	464	496	494
Travel Time (hr)	23.0	26.3	21.9	23.4	20.1	22.9
Total Delay (hr)	12.1	15.2	11.3	13.5	9.4	12.3
Total Stops	708	645	682	548	748	663
Fuel Used (l)	52.5	55.7	49.3	49.4	49.1	51.2

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00					
End Time	7:10					
Total Time (min)	10					
Volumes adjusted by Growth Factors.						
Run Number	1	2	3	4	5	Avg
Vehs Entered	940	980	925	892	937	931
Vehs Exited	900	965	878	839	891	894
Starting Vehs	91	129	94	126	91	105
Ending Vehs	131	144	141	179	137	147
Travel Distance (km)	503	519	488	464	496	494
Travel Time (hr)	23.0	26.3	21.9	23.4	20.1	22.9
Total Delay (hr)	12.1	15.2	11.3	13.5	9.4	12.3
Total Stops	708	645	682	548	748	663
Fuel Used (l)	52.5	55.7	49.3	49.4	49.1	51.2

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	WBL	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.6	0.1	0.8
Total Delay (hr)	0.3	0.0	0.0	0.0	0.3	0.7	0.0	6.7	1.1	9.1

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.8	0.0	0.1	0.3	0.0	1.4

Total Network Performance

Movement	All
Denied Delay (hr)	0.8
Total Delay (hr)	11.5

Queuing and Blocking Report
PM Peak Hour

10-16-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	9.4	2.6
Average Queue (m)	6.2	0.5
95th Queue (m)	13.1	3.2
Link Distance (m)	175.7	246.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	10.4	17.6
Average Queue (m)	6.3	12.2
95th Queue (m)	13.9	19.0
Link Distance (m)	125.3	296.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	11.7	8.9	16.8	17.6
Average Queue (m)	8.9	3.9	11.7	12.8
95th Queue (m)	14.5	11.1	18.7	19.9
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 4: Lloyd St & Mont Adam St

Movement	B25
Directions Served	T
Maximum Queue (m)	30.4
Average Queue (m)	6.1
95th Queue (m)	55.3
Link Distance (m)	127.1
Upstream Blk Time (%)	0
Queuing Penalty (veh)	1
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	T	TR	T	TR
Maximum Queue (m)	51.8	1.6	30.6	69.3	61.4	262.4	254.0
Average Queue (m)	31.1	0.3	17.1	59.8	37.6	211.0	207.7
95th Queue (m)	56.1	3.0	37.0	78.9	69.3	321.2	319.0
Link Distance (m)	296.5	28.2				258.5	258.5
Upstream Blk Time (%)						32	35
Queuing Penalty (veh)						0	0
Storage Bay Dist (m)			45.0				
Storage Blk Time (%)				12		94	
Queuing Penalty (veh)				3		0	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (m)	7.6	31.5	1.6	70.7	61.4	37.8	37.5	47.5	38.1	14.2
Average Queue (m)	2.5	21.6	0.3	56.4	42.5	22.4	21.3	30.3	20.3	6.4
95th Queue (m)	8.2	35.5	2.8	84.9	73.4	46.8	44.4	51.4	42.2	16.6
Link Distance (m)	75.4	228.2		226.3	226.3	226.3		241.2	241.2	241.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)							2	3		
Queuing Penalty (veh)							6	4		

Network Summary

Network wide Queuing Penalty: 15

Actuated Signals, Observed Splits
PM Peak Hour

10-16-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	43.9	13.3	43.9	15.5
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	0	100	0
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	6.5	37.1	16.4	58.7	16.4
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	14	0	13	14	13
Cycles @ Minimum (%)	0	0	13	0	13
Cycles Maxed Out (%)	57	100	13	86	13
Cycles with Peds (%)	0	38	0	29	0

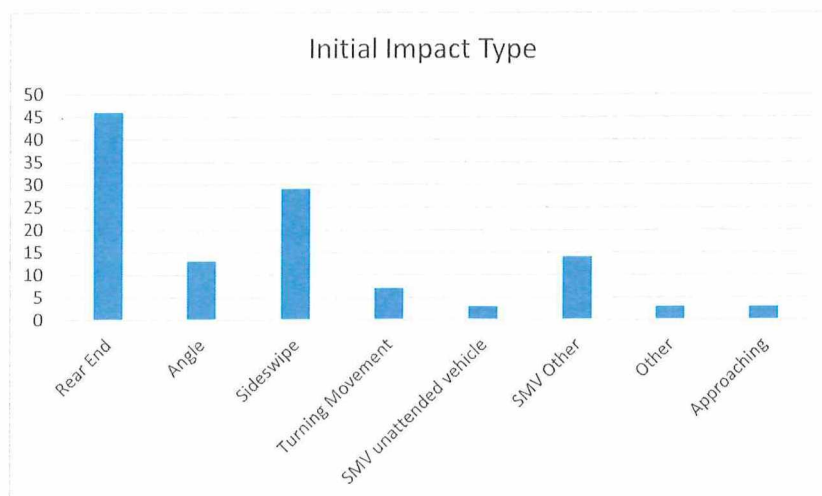
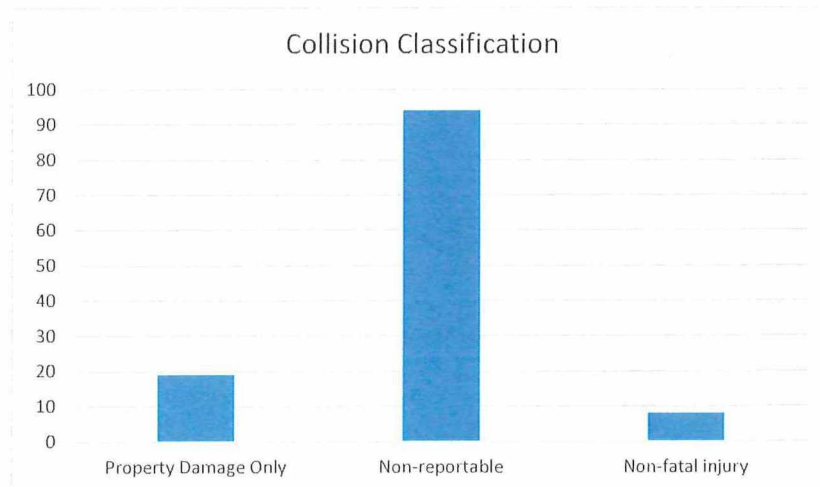
Controller Summary

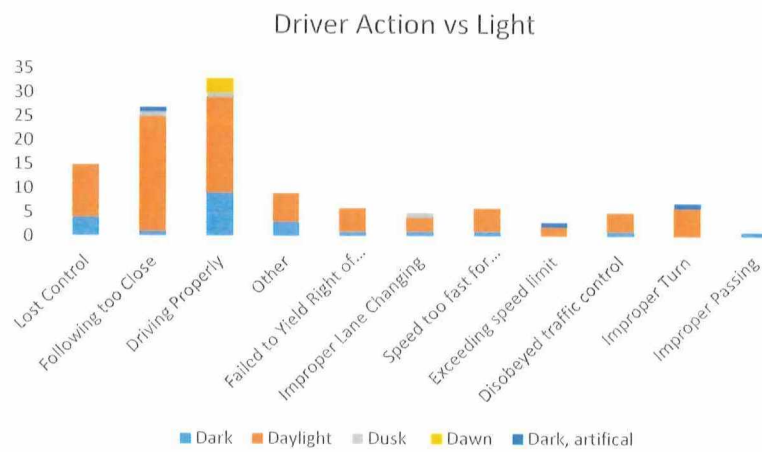
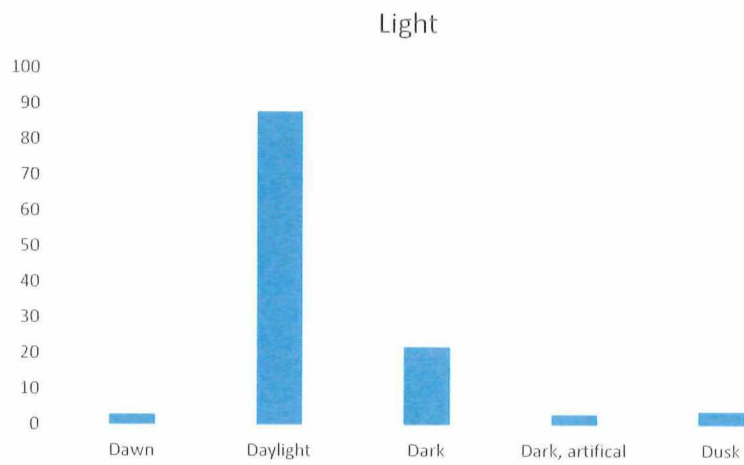
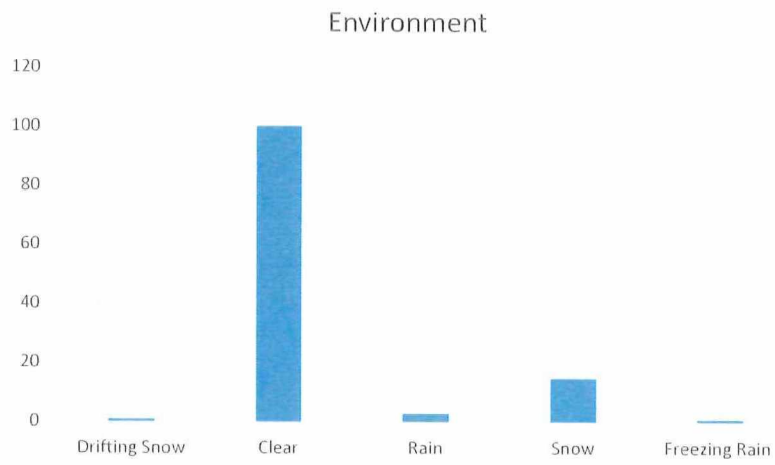
Average Cycle Length (s): NA

Number of Complete Cycles : 0

D

Appendix D: Collision Analysis





E

Appendix E: 2028 Future Background Traffic Operations

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

AM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	152	0	3	4	0	2	18	945	1	2	1006	126
Future Volume (vph)	152	0	3	4	0	2	18	945	1	2	1006	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			0.99		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.95		1.00	1.00		1.00	0.98	
Flt Protected		0.95			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1771			1747		1703	3470		1805	3404	
Flt Permitted		0.72			0.82		0.22	1.00		0.15	1.00	
Satd. Flow (perm)		1341			1476		386	3470		289	3404	
Peak-hour factor, PHF	0.77	0.25	0.75	0.50	0.25	0.50	0.71	0.78	0.25	0.50	0.94	0.80
Adj. Flow (vph)	197	0	4	8	0	4	25	1212	4	4	1070	158
RTOR Reduction (vph)	0	80	0	0	10	0	0	0	0	0	12	0
Lane Group Flow (vph)	0	121	0	0	2	0	25	1216	0	4	1216	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	6%	4%	0%	0%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.8			12.8		34.2	34.2		38.9	38.9	
Effective Green, g (s)		10.8			12.8		34.2	34.2		38.9	38.9	
Actuated g/C Ratio		0.17			0.20		0.54	0.54		0.62	0.62	
Clearance Time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5		2.0	4.5	
Lane Grp Cap (vph)		229			299		209	1880		194	2098	
v/s Ratio Prot								c0.35		0.00	c0.36	
v/s Ratio Perm		c0.09			0.00		0.06			0.01		
v/c Ratio		0.53			0.01		0.12	0.65		0.02	0.58	
Uniform Delay, d1		23.8			20.1		7.1	10.2		6.0	7.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		1.8			0.0		0.4	1.0		0.0	0.5	
Delay (s)		25.7			20.1		7.5	11.1		6.0	7.8	
Level of Service		C			C		A	B		A	A	
Approach Delay (s)		25.7			20.1			11.1			7.8	
Approach LOS		C			C			B			A	
Intersection Summary												
HCM 2000 Control Delay			10.7				HCM 2000 Level of Service			B		
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			63.1				Sum of lost time (s)			17.4		
Intersection Capacity Utilization			54.6%				ICU Level of Service			A		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

AM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↑↑↑		↕	↑↑↑	
Traffic Volume (vph)	4	0	11	44	1	111	10	605	18	126	1030	0
Future Volume (vph)	4	0	11	44	1	111	10	605	18	126	1030	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.90			0.91		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1673			1673		1799	4914		1782	4988	
Flt Permitted		0.89			0.89		0.24	1.00		0.33	1.00	
Satd. Flow (perm)		1509			1508		453	4914		610	4988	
Peak-hour factor, PHF	0.50	0.25	0.50	0.77	0.25	0.87	0.32	0.86	0.71	0.76	0.91	0.25
Adj. Flow (vph)	8	0	22	57	4	128	31	703	25	166	1132	0
RTOR Reduction (vph)	0	25	0	0	108	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	5	0	0	81	0	31	724	0	166	1132	0
Confl. Peds. (#/hr)			2	2			6		12	12		6
Heavy Vehicles (%)	0%	0%	0%	3%	0%	1%	0%	5%	0%	1%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.2			10.2		34.3	34.3		44.3	44.3	
Effective Green, g (s)		10.2			10.2		34.3	34.3		44.3	44.3	
Actuated g/C Ratio		0.15			0.15		0.51	0.51		0.66	0.66	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		230			230		232	2526		510	3312	
v/s Ratio Prot								0.15		0.03	c0.23	
v/s Ratio Perm		0.00			c0.05		0.07			0.19		
v/c Ratio		0.02			0.35		0.13	0.29		0.33	0.34	
Uniform Delay, d1		24.0			25.3		8.4	9.2		4.3	4.9	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			1.3		1.2	0.3		0.4	0.3	
Delay (s)		24.1			26.5		9.6	9.5		4.7	5.1	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		24.1			26.5			9.5			5.1	
Approach LOS		C			C			A			A	
Intersection Summary												
HCM 2000 Control Delay		8.6										
HCM 2000 Volume to Capacity ratio		0.37										
Actuated Cycle Length (s)		66.7										
Intersection Capacity Utilization		64.3%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

AM Peak Hour
2028 Future Background Conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	34	15	140	11	4	151
Future Volume (Veh/h)	34	15	140	11	4	151
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.70	0.88	0.50	1.00	0.85
Hourly flow rate (vph)	42	21	159	22	4	178
Pedestrians	1		1			1
Lane Width (m)	3.6		3.6			3.6
Walking Speed (m/s)	1.2		1.2			1.2
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	358	172			182	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	358	172			182	
tC, single (s)	6.5	6.2			4.3	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	93	98			100	
cM capacity (veh/h)	624	875			1265	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	63	181	182			
Volume Left	42	0	4			
Volume Right	21	22	0			
cSH	690	1700	1265			
Volume to Capacity	0.09	0.11	0.00			
Queue Length 95th (m)	2.4	0.0	0.1			
Control Delay (s)	10.7	0.0	0.2			
Lane LOS	B		A			
Approach Delay (s)	10.7	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			21.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

AM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	3	0	3	151	0	1	0	161	19	1
Future Volume (Veh/h)	2	4	3	0	3	151	0	1	0	161	19	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.38	0.25	0.75	0.85	0.25	0.25	0.25	0.85	0.75	0.25
Hourly flow rate (vph)	4	8	8	0	4	178	0	4	0	189	25	4
Pedestrians		7									2	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		1									0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	598	416	34	421	418	6	36			4		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	598	416	34	421	418	6	36			4		
tC, single (s)	7.1	6.5	6.5	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.6	3.5	4.3	3.3	2.2			2.2		
p0 queue free %	99	98	99	100	99	83	100			88		
cM capacity (veh/h)	311	466	951	485	423	1069	1579			1624		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	20	182	4	218								
Volume Left	4	0	0	189								
Volume Right	8	178	0	4								
cSH	520	1034	1579	1624								
Volume to Capacity	0.04	0.18	0.00	0.12								
Queue Length 95th (m)	1.0	5.1	0.0	3.2								
Control Delay (s)	12.2	9.2	0.0	6.6								
Lane LOS	B	A		A								
Approach Delay (s)	12.2	9.2	0.0	6.6								
Approach LOS	B	A										
Intersection Summary												
Average Delay			7.9									
Intersection Capacity Utilization			33.3%			ICU Level of Service				A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

AM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	8	11	3	10	4	14	127	17	14	139	5
Future Volume (vph)	8	8	11	3	10	4	14	127	17	14	139	5
Peak Hour Factor	0.88	0.44	0.83	0.75	0.45	0.50	0.81	0.87	0.67	0.65	0.81	0.63
Hourly flow rate (vph)	9	18	13	4	22	8	17	146	25	22	172	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	40	34	188	202								
Volume Left (vph)	9	4	17	22								
Volume Right (vph)	13	8	25	8								
Hadj (s)	-0.04	0.20	-0.01	0.03								
Departure Headway (s)	4.8	5.0	4.3	4.3								
Degree Utilization, x	0.05	0.05	0.22	0.24								
Capacity (veh/h)	687	654	812	805								
Control Delay (s)	8.0	8.3	8.5	8.7								
Approach Delay (s)	8.0	8.3	8.5	8.7								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.5									
Level of Service			A									
Intersection Capacity Utilization			24.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

AM Peak Hour
2028 Future Background Conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑			↗
Traffic Volume (veh/h)	0	0	366	1	0	25
Future Volume (Veh/h)	0	0	366	1	0	25
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.88	0.25	0.25	0.72
Hourly flow rate (vph)	0	0	416	4	0	35
Pedestrians		5			5	
Lane Width (m)		3.6			3.6	
Walking Speed (m/s)		1.2			1.2	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)			372			
pX, platoon unblocked						
vC, conflicting volume	425				423	428
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	425				423	428
tC, single (s)	4.1				6.8	7.1
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.4
p0 queue free %	100				100	94
cM capacity (veh/h)	1140				562	551
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	420	35		
Volume Left	0	0	0	0		
Volume Right	0	0	4	35		
cSH	1700	1700	1700	551		
Volume to Capacity	0.00	0.00	0.25	0.06		
Queue Length 95th (m)	0.0	0.0	0.0	1.6		
Control Delay (s)	0.0	0.0	0.0	12.0		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.0		
Approach LOS				B		
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			30.9%	ICU Level of Service	A	
Analysis Period (min)			15			

SimTraffic Simulation Summary
AM Peak Hour

10-16-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	686	715	691	614	657	672
Vehs Exited	657	682	700	594	650	656
Starting Vehs	58	70	71	61	64	63
Ending Vehs	87	103	62	81	71	77
Travel Distance (km)	384	390	395	361	374	381
Travel Time (hr)	12.3	13.2	12.2	10.0	10.0	11.6
Total Delay (hr)	4.0	4.9	3.8	2.2	2.0	3.4
Total Stops	487	496	461	403	366	441
Fuel Used (l)	34.3	35.4	35.5	31.2	31.0	33.5

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	686	715	691	614	657	672
Vehs Exited	657	682	700	594	650	656
Starting Vehs	58	70	71	61	64	63
Ending Vehs	87	103	62	81	71	77
Travel Distance (km)	384	390	395	361	374	381
Travel Time (hr)	12.3	13.2	12.2	10.0	10.0	11.6
Total Delay (hr)	4.0	4.9	3.8	2.2	2.0	3.4
Total Stops	487	496	461	403	366	441
Fuel Used (l)	34.3	35.4	35.5	31.2	31.0	33.5

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	WBL	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.0	0.0	0.1	0.2	0.0	1.6	0.2	2.2

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.2	0.5

Total Network Performance

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.4

Queuing and Blocking Report
AM Peak Hour

10-16-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB
Directions Served	LR
Maximum Queue (m)	11.6
Average Queue (m)	7.4
95th Queue (m)	14.1
Link Distance (m)	175.7
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	5.2	16.9
Average Queue (m)	1.4	11.9
95th Queue (m)	6.6	19.0
Link Distance (m)	125.3	296.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.0	12.8	15.3	17.9
Average Queue (m)	6.5	3.9	10.9	12.2
95th Queue (m)	13.5	13.8	17.5	19.5
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

AM Peak Hour

10-16-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement

Directions Served

Maximum Queue (m)

Average Queue (m)

95th Queue (m)

Link Distance (m)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (m)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (m)	36.7	3.2	16.2	49.1	24.0	11.9	98.6	97.9
Average Queue (m)	23.1	0.8	6.5	32.5	13.0	2.4	64.8	58.8
95th Queue (m)	41.2	4.6	19.8	60.0	31.8	14.6	126.5	120.2
Link Distance (m)	296.5	28.2					258.5	258.5
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			45.0			20.0		
Storage Blk Time (%)				2			61	
Queuing Penalty (veh)				0			1	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	T
Maximum Queue (m)	6.6	26.9	6.8	32.8	18.0	7.1	23.6	32.0	21.6	14.4
Average Queue (m)	2.3	17.8	2.5	23.1	9.1	2.3	12.5	22.7	14.2	6.1
95th Queue (m)	8.3	32.5	8.6	38.3	20.9	7.9	25.6	38.8	28.1	20.8
Link Distance (m)	76.6	228.2		226.3	226.3	226.3		242.2	242.2	242.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)								1		
Queuing Penalty (veh)								1		

Network Summary

Network wide Queuing Penalty: 3

Actuated Signals, Observed Splits
AM Peak Hour

10-16-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL NBTL	EBTL	SBTL	WBTL	
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	46.6	10.0	46.6	12.1
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	86	0	86	0
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL NBTL	EBTL	SBTL	WBTL	
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	6.1	40.4	11.7	62.1	11.7
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	38	0	22	25	22
Cycles @ Minimum (%)	13	0	33	0	33
Cycles Maxed Out (%)	25	100	0	75	0
Cycles with Peds (%)	0	13	0	0	0

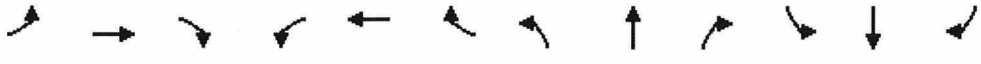
Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

PM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↔	↔		↔	↔	
Traffic Volume (vph)	238	0	2	2	0	0	29	1663	1	0	1390	206
Future Volume (vph)	238	0	2	2	0	0	29	1663	1	0	1390	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9			6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		1.00			1.00		1.00	1.00			0.98	
Flt Protected		0.95			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1760			1805		1626	3538			3453	
Flt Permitted		0.73			0.76		0.09	1.00			1.00	
Satd. Flow (perm)		1346			1441		157	3538			3453	
Peak-hour factor, PHF	0.78	0.25	0.25	0.50	0.25	0.25	0.84	0.91	0.25	0.25	0.95	0.83
Adj. Flow (vph)	305	0	8	4	0	0	35	1827	4	0	1463	248
RTOR Reduction (vph)	0	74	0	0	0	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	239	0	0	4	0	35	1831	0	0	1696	0
Confl. Peds. (#/hr)	3					3	4		1	1		4
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	1%	0%	50%	0%	0%	0%	11%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.3			19.3		43.7	43.7			43.7	
Effective Green, g (s)		17.3			19.3		43.7	43.7			43.7	
Actuated g/C Ratio		0.23			0.26		0.59	0.59			0.59	
Clearance Time (s)		6.5			4.5		6.9	6.9			6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5			4.5	
Lane Grp Cap (vph)		312			373		92	2078			2028	
v/s Ratio Prot								c0.52			0.49	
v/s Ratio Perm		c0.18			0.00		0.22					
v/c Ratio		0.77			0.01		0.38	0.88			0.84	
Uniform Delay, d1		26.7			20.5		8.2	13.1			12.4	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		10.3			0.0		4.5	5.0			3.4	
Delay (s)		37.0			20.5		12.6	18.2			15.9	
Level of Service		D			C		B	B			B	
Approach Delay (s)		37.0			20.5			18.1			15.9	
Approach LOS		D			C			B			B	
Intersection Summary												
HCM 2000 Control Delay		18.6										
HCM 2000 Volume to Capacity ratio		0.91										
Actuated Cycle Length (s)		74.4										
Intersection Capacity Utilization		69.6%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

6: Notre Dame Ave & Driveway/Leslie St

PM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (vph)	5	1	9	61	0	209	2	1395	44	165	992	1
Future Volume (vph)	5	1	9	61	0	209	2	1395	44	165	992	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		1.00	1.00	
Frt		0.94			0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1739			1637		1781	5049		1787	5081	
Flt Permitted		0.82			0.90		0.26	1.00		0.10	1.00	
Satd. Flow (perm)		1457			1497		489	5049		196	5081	
Peak-hour factor, PHF	0.63	0.25	1.00	0.74	0.25	0.92	0.50	0.90	0.91	0.90	0.95	0.25
Adj. Flow (vph)	8	4	9	82	0	227	4	1550	48	183	1044	4
RTOR Reduction (vph)	0	7	0	0	135	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	174	0	4	1594	0	183	1048	0
Confl. Peds. (#/hr)	9		10	10		9	19		20	20		19
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	2%	3%	1%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.0			14.0		34.3	34.3		44.3	44.3	
Effective Green, g (s)		14.0			14.0		34.3	34.3		44.3	44.3	
Actuated g/C Ratio		0.20			0.20		0.49	0.49		0.63	0.63	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		289			297		237	2456		258	3192	
v/s Ratio Prot								0.32		c0.06	0.21	
v/s Ratio Perm		0.01			c0.12		0.01			c0.38		
v/c Ratio		0.05			0.59		0.02	0.65		0.71	0.33	
Uniform Delay, d1		22.9			25.6		9.4	13.6		9.3	6.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			3.5		0.1	1.3		8.6	0.3	
Delay (s)		23.0			29.1		9.5	14.9		17.9	6.4	
Level of Service		C			C		A	B		B	A	
Approach Delay (s)		23.0			29.1			14.9			8.1	
Approach LOS		C			C			B			A	
Intersection Summary												
HCM 2000 Control Delay			13.7			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			70.5			Sum of lost time (s)			16.2			
Intersection Capacity Utilization			71.3%			ICU Level of Service			C			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

PM Peak Hour
2028 Future Background Conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	27	11	221	29	19	229
Future Volume (Veh/h)	27	11	221	29	19	229
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.83	0.88	0.59	0.90	0.85
Hourly flow rate (vph)	39	13	251	49	21	269
Pedestrians			1			
Lane Width (m)			3.6			
Walking Speed (m/s)			1.2			
Percent Blockage			0			
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	588	276			300	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	588	276			300	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	92	98			98	
cM capacity (veh/h)	467	768			1273	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	52	300	290			
Volume Left	39	0	21			
Volume Right	13	49	0			
cSH	518	1700	1273			
Volume to Capacity	0.10	0.18	0.02			
Queue Length 95th (m)	2.7	0.0	0.4			
Control Delay (s)	12.7	0.0	0.7			
Lane LOS	B		A			
Approach Delay (s)	12.7	0.0	0.7			
Approach LOS	B					
Intersection Summary						
Average Delay		1.4				
Intersection Capacity Utilization		37.8%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

PM Peak Hour
2028 Future Background Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	15	3	3	5	246	0	1	1	223	28	6
Future Volume (Veh/h)	8	15	3	3	5	246	0	1	1	223	28	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.58	0.58	0.38	0.38	0.42	0.88	0.25	0.25	0.25	0.77	0.59	0.30
Hourly flow rate (vph)	14	26	8	8	12	280	0	4	4	290	47	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	929	645	57	664	653	6	67			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	929	645	57	664	653	6	67			8		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	91	92	99	97	96	74	100			82		
cM capacity (veh/h)	155	323	1015	303	320	1080	1547			1625		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	48	300	8	357								
Volume Left	14	8	0	290								
Volume Right	8	280	4	20								
cSH	269	928	1547	1625								
Volume to Capacity	0.18	0.32	0.00	0.18								
Queue Length 95th (m)	5.1	11.3	0.0	5.2								
Control Delay (s)	21.3	10.7	0.0	6.5								
Lane LOS	C	B		A								
Approach Delay (s)	21.3	10.7	0.0	6.5								
Approach LOS	C	B										
Intersection Summary												
Average Delay			9.2									
Intersection Capacity Utilization			43.3%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

PM Peak Hour
2028 Future Background Conditions

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Sign Control		Stop			Stop			Stop			Stop									
Traffic Volume (vph)	15	12	51	8	9	9	18	208	10	11	181	15								
Future Volume (vph)	15	12	51	8	9	9	18	208	10	11	181	15								
Peak Hour Factor	0.58	0.55	0.78	0.44	0.67	0.67	0.61	0.93	0.56	0.83	0.88	0.70								
Hourly flow rate (vph)	26	22	65	18	13	13	30	224	18	13	206	21								
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total (vph)	113	44	272	240																
Volume Left (vph)	26	18	30	13																
Volume Right (vph)	65	13	18	21																
Hadj (s)	-0.30	-0.10	0.01	-0.04																
Departure Headway (s)	4.9	5.2	4.6	4.6																
Degree Utilization, x	0.15	0.06	0.35	0.31																
Capacity (veh/h)	665	614	752	747																
Control Delay (s)	8.7	8.5	10.0	9.6																
Approach Delay (s)	8.7	8.5	10.0	9.6																
Approach LOS	A	A	B	A																
Intersection Summary																				
Delay			9.6																	
Level of Service			A																	
Intersection Capacity Utilization			30.3%	ICU Level of Service		A														
Analysis Period (min)			15																	

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

PM Peak Hour
2028 Future Background Conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	0	484	0	0	36
Future Volume (Veh/h)	0	0	484	0	0	36
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.91	0.25	0.25	0.69
Hourly flow rate (vph)	0	0	532	0	0	52
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)			372			
pX, platoon unblocked	0.87				0.87	0.87
vC, conflicting volume	532				532	532
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	382				382	382
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	90
cM capacity (veh/h)	1028				518	539
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	532	52		
Volume Left	0	0	0	0		
Volume Right	0	0	0	52		
cSH	1700	1700	1700	539		
Volume to Capacity	0.00	0.00	0.31	0.10		
Queue Length 95th (m)	0.0	0.0	0.0	2.6		
Control Delay (s)	0.0	0.0	0.0	12.4		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.4		
Approach LOS				B		
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			35.5%	ICU Level of Service		A
Analysis Period (min)			15			

SimTraffic Simulation Summary
PM Peak Hour

10-16-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	995	1038	1026	956	957	991
Vehs Exited	927	980	950	939	915	941
Starting Vehs	99	105	83	133	109	102
Ending Vehs	167	163	159	150	151	153
Travel Distance (km)	517	538	543	535	515	529
Travel Time (hr)	22.3	26.9	24.2	21.2	24.9	23.9
Total Delay (hr)	11.1	15.4	12.6	9.7	13.9	12.5
Total Stops	757	635	679	727	707	698
Fuel Used (l)	51.7	56.8	55.2	52.0	54.3	54.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	995	1038	1026	956	957	991
Vehs Exited	927	980	950	939	915	941
Starting Vehs	99	105	83	133	109	102
Ending Vehs	167	163	159	150	151	153
Travel Distance (km)	517	538	543	535	515	529
Travel Time (hr)	22.3	26.9	24.2	21.2	24.9	23.9
Total Delay (hr)	11.1	15.4	12.6	9.7	13.9	12.5
Total Stops	757	635	679	727	707	698
Fuel Used (l)	51.7	56.8	55.2	52.0	54.3	54.0

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	NBL	NBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.9	0.2	1.1
Total Delay (hr)	0.3	0.0	0.4	0.7	6.3	1.0	8.8

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.0	0.9	0.0	0.1	0.4	1.6

Total Network Performance

Denied Delay (hr)	1.1
Total Delay (hr)	11.4

Queuing and Blocking Report
PM Peak Hour

10-16-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	9.3	2.4
Average Queue (m)	5.9	0.5
95th Queue (m)	12.3	3.1
Link Distance (m)	175.7	246.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.0	17.6	3.1
Average Queue (m)	5.3	12.8	0.6
95th Queue (m)	12.5	19.5	5.6
Link Distance (m)	125.3	296.5	179.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	8.9	8.8	19.7	20.8
Average Queue (m)	7.8	3.8	12.3	13.9
95th Queue (m)	12.5	11.0	20.6	22.4
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)			0	
Queuing Penalty (veh)			0	
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
PM Peak Hour

10-16-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement

Directions Served

Maximum Queue (m)

Average Queue (m)

95th Queue (m)

Link Distance (m)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (m)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (m)	53.1	39.8	68.1	70.0	265.3	267.5
Average Queue (m)	34.8	22.0	59.6	41.1	198.4	196.9
95th Queue (m)	56.5	50.0	80.1	75.7	313.3	317.7
Link Distance (m)	296.5				258.5	258.5
Upstream Blk Time (%)					29	32
Queuing Penalty (veh)					0	0
Storage Bay Dist (m)		45.0				
Storage Blk Time (%)		15	14		95	
Queuing Penalty (veh)		126	4		0	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (m)	4.4	38.6	1.7	73.4	56.6	42.6	35.7	48.3	45.5	23.7
Average Queue (m)	1.2	24.7	0.3	57.5	44.7	19.6	20.7	31.7	25.6	11.0
95th Queue (m)	5.5	44.5	3.1	78.7	62.4	46.7	38.0	50.0	47.4	26.9
Link Distance (m)	75.4	228.2		226.3	226.3	226.3		241.2	241.2	241.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)							0	4		
Queuing Penalty (veh)							1	6		

Network Summary

Network wide Queuing Penalty: 138

Actuated Signals, Observed Splits
PM Peak Hour

10-16-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	43.1	13.4	43.1	15.5
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	0	100	0
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	6.1	36.7	19.0	58.5	19.0
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	13	0	14	14	14
Cycles @ Minimum (%)	13	0	14	0	14
Cycles Maxed Out (%)	63	100	14	86	14
Cycles with Peds (%)	0	25	0	29	0

Controller Summary

Average Cycle Length (s): NA

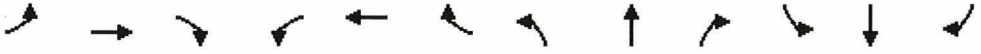
Number of Complete Cycles : 0

F

Appendix F: Scenario 1-2028 Future Total Traffic Operations

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

AM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↕		↗	↕	
Traffic Volume (vph)	173	0	3	4	0	2	18	945	1	2	1006	133
Future Volume (vph)	173	0	3	4	0	2	18	945	1	2	1006	133
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.95		1.00	1.00		1.00	0.98	
Flt Protected		0.95			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1771			1747		1703	3470		1805	3401	
Flt Permitted		0.72			0.82		0.21	1.00		0.15	1.00	
Satd. Flow (perm)		1341			1482		370	3470		278	3401	
Peak-hour factor, PHF	0.77	0.25	0.75	0.50	0.25	0.50	0.71	0.78	0.25	0.50	0.94	0.80
Adj. Flow (vph)	225	0	4	8	0	4	25	1212	4	4	1070	166
RTOR Reduction (vph)	0	78	0	0	9	0	0	0	0	0	13	0
Lane Group Flow (vph)	0	151	0	0	3	0	25	1216	0	4	1223	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	6%	4%	0%	0%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.3			14.3		33.8	33.8		38.5	38.5	
Effective Green, g (s)		12.3			14.3		33.8	33.8		38.5	38.5	
Actuated g/C Ratio		0.19			0.22		0.53	0.53		0.60	0.60	
Clearance Time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5		2.0	4.5	
Lane Grp Cap (vph)		256			330		194	1826		183	2039	
v/s Ratio Prot								c0.35		0.00	c0.36	
v/s Ratio Perm		c0.11			0.00		0.07			0.01		
v/c Ratio		0.59			0.01		0.13	0.67		0.02	0.60	
Uniform Delay, d1		23.7			19.4		7.7	11.1		6.7	8.0	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		3.0			0.0		0.5	1.1		0.0	0.6	
Delay (s)		26.7			19.4		8.2	12.2		6.7	8.7	
Level of Service		C			B		A	B		A	A	
Approach Delay (s)		26.7			19.4			12.1			8.7	
Approach LOS		C			B			B			A	
Intersection Summary												
HCM 2000 Control Delay		11.8										
HCM 2000 Volume to Capacity ratio		0.66										
Actuated Cycle Length (s)		64.2								17.4		
Intersection Capacity Utilization		56.4%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

AM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (vph)	4	0	11	59	1	115	10	605	20	131	1030	0
Future Volume (vph)	4	0	11	59	1	115	10	605	20	131	1030	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.90			0.92		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1673			1681		1799	4911		1782	4988	
Flt Permitted		0.90			0.87		0.24	1.00		0.32	1.00	
Satd. Flow (perm)		1529			1485		453	4911		607	4988	
Peak-hour factor, PHF	0.50	0.25	0.50	0.77	0.25	0.87	0.32	0.86	0.71	0.76	0.91	0.25
Adj. Flow (vph)	8	0	22	77	4	132	31	703	28	172	1132	0
RTOR Reduction (vph)	0	25	0	0	86	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	5	0	0	127	0	31	727	0	172	1132	0
Confl. Peds. (#/hr)			2	2			6		12	12		6
Heavy Vehicles (%)	0%	0%	0%	3%	0%	1%	0%	5%	0%	1%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.0			12.0		34.2	34.2		44.2	44.2	
Effective Green, g (s)		12.0			12.0		34.2	34.2		44.2	44.2	
Actuated g/C Ratio		0.18			0.18		0.50	0.50		0.65	0.65	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		268			260		226	2455		495	3223	
v/s Ratio Prot								0.15		0.03	c0.23	
v/s Ratio Perm		0.00			c0.09		0.07			0.19		
v/c Ratio		0.02			0.49		0.14	0.30		0.35	0.35	
Uniform Delay, d1		23.3			25.4		9.2	10.0		4.9	5.5	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			2.0		1.3	0.3		0.4	0.3	
Delay (s)		23.4			27.4		10.4	10.3		5.3	5.8	
Level of Service		C			C		B	B		A	A	
Approach Delay (s)		23.4			27.4			10.3			5.8	
Approach LOS		C			C			B			A	
Intersection Summary												
HCM 2000 Control Delay		9.5										
HCM 2000 Volume to Capacity ratio		0.41										
Actuated Cycle Length (s)		68.4										
Intersection Capacity Utilization		66.8%										
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

AM Peak Hour
Scenario 1: 2028 Future Total Conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	57	34	140	19	11	151
Future Volume (Veh/h)	57	34	140	19	11	151
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.70	0.88	0.50	1.00	0.85
Hourly flow rate (vph)	71	49	159	38	11	178
Pedestrians	1		1			1
Lane Width (m)	3.6		3.6			3.6
Walking Speed (m/s)	1.2		1.2			1.2
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	380	180			198	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	380	180			198	
tC, single (s)	6.5	6.2			4.3	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	88	94			99	
cM capacity (veh/h)	602	867			1247	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	120	197	189			
Volume Left	71	0	11			
Volume Right	49	38	0			
cSH	688	1700	1247			
Volume to Capacity	0.17	0.12	0.01			
Queue Length 95th (m)	5.0	0.0	0.2			
Control Delay (s)	11.3	0.0	0.5			
Lane LOS	B		A			
Approach Delay (s)	11.3	0.0	0.5			
Approach LOS	B					
Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utilization			29.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

AM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	3	0	3	158	0	2	0	182	21	1
Future Volume (Veh/h)	2	4	3	0	3	158	0	2	0	182	21	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.38	0.25	0.75	0.85	0.25	0.25	0.25	0.85	0.75	0.25
Hourly flow rate (vph)	4	8	8	0	4	186	0	8	0	214	28	4
Pedestrians		7									2	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		1									0	
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	663	473	37	478	475	10	39			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	663	473	37	478	475	10	39			8		
tC, single (s)	7.1	6.5	6.5	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.6	3.5	4.3	3.3	2.2			2.2		
p0 queue free %	99	98	99	100	99	83	100			87		
cM capacity (veh/h)	274	425	948	438	385	1064	1575			1619		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	20	190	8	246								
Volume Left	4	0	0	214								
Volume Right	8	186	0	4								
cSH	478	1026	1575	1619								
Volume to Capacity	0.04	0.19	0.00	0.13								
Queue Length 95th (m)	1.0	5.4	0.0	3.6								
Control Delay (s)	12.9	9.3	0.0	6.7								
Lane LOS	B	A		A								
Approach Delay (s)	12.9	9.3	0.0	6.7								
Approach LOS	B	A										
Intersection Summary												
Average Delay			7.9									
Intersection Capacity Utilization			34.9%			ICU Level of Service			A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

AM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	8	18	3	10	4	33	127	17	14	139	5
Future Volume (vph)	8	8	18	3	10	4	33	127	17	14	139	5
Peak Hour Factor	0.88	0.44	0.83	0.75	0.45	0.50	0.81	0.87	0.67	0.65	0.81	0.63
Hourly flow rate (vph)	9	18	22	4	22	8	41	146	25	22	172	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	49	34	212	202								
Volume Left (vph)	9	4	41	22								
Volume Right (vph)	22	8	25	8								
Hadj (s)	-0.15	0.20	0.02	0.03								
Departure Headway (s)	4.7	5.1	4.3	4.4								
Degree Utilization, x	0.06	0.05	0.26	0.24								
Capacity (veh/h)	690	640	803	794								
Control Delay (s)	8.1	8.4	8.8	8.8								
Approach Delay (s)	8.1	8.4	8.8	8.8								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.7									
Level of Service			A									
Intersection Capacity Utilization			29.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

AM Peak Hour
Scenario 1: 2028 Future Total Conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↔			↕↔
Traffic Volume (veh/h)	0	0	366	2	0	27
Future Volume (Veh/h)	0	0	366	2	0	27
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.88	0.25	0.25	0.72
Hourly flow rate (vph)	0	0	416	8	0	38
Pedestrians		5			5	
Lane Width (m)		3.6			3.6	
Walking Speed (m/s)		1.2			1.2	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)			372			
pX, platoon unblocked						
vC, conflicting volume	429				425	430
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	429				425	430
tC, single (s)	4.1				6.8	7.1
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.4
p0 queue free %	100				100	93
cM capacity (veh/h)	1136				560	550
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	424	38		
Volume Left	0	0	0	0		
Volume Right	0	0	8	38		
cSH	1700	1700	1700	550		
Volume to Capacity	0.00	0.00	0.25	0.07		
Queue Length 95th (m)	0.0	0.0	0.0	1.8		
Control Delay (s)	0.0	0.0	0.0	12.0		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.0		
Approach LOS				B		
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			30.9%	ICU Level of Service	A	
Analysis Period (min)			15			

SimTraffic Simulation Summary

AM Peak Hour

10-19-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	681	724	693	675	673	688
Vehs Exited	684	720	681	671	673	686
Starting Vehs	59	69	56	52	63	56
Ending Vehs	56	73	68	56	63	59
Travel Distance (km)	395	412	395	388	402	398
Travel Time (hr)	11.3	12.4	12.1	11.4	12.7	12.0
Total Delay (hr)	2.8	3.6	3.6	3.1	4.0	3.4
Total Stops	486	450	502	492	490	483
Fuel Used (l)	34.6	35.8	34.8	33.8	35.7	35.0

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	681	724	693	675	673	688
Vehs Exited	684	720	681	671	673	686
Starting Vehs	59	69	56	52	63	56
Ending Vehs	56	73	68	56	63	59
Travel Distance (km)	395	412	395	388	402	398
Travel Time (hr)	11.3	12.4	12.1	11.4	12.7	12.0
Total Delay (hr)	2.8	3.6	3.6	3.1	4.0	3.4
Total Stops	486	450	502	492	490	483
Fuel Used (l)	34.6	35.8	34.8	33.8	35.7	35.0

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBT	WBR	NBT	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.1	0.2	0.0	1.3	0.2	2.0

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.3	0.7

Total Network Performance

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.4

Queuing and Blocking Report
AM Peak Hour

10-19-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	13.5	1.0
Average Queue (m)	8.9	0.2
95th Queue (m)	15.9	1.9
Link Distance (m)	175.7	246.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	10.2	18.1	3.3
Average Queue (m)	4.5	12.7	0.7
95th Queue (m)	12.5	19.4	4.3
Link Distance (m)	125.3	296.5	179.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.4	14.8	16.2	17.8
Average Queue (m)	6.5	4.7	11.6	13.1
95th Queue (m)	13.6	15.1	17.9	20.4
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

AM Peak Hour

10-19-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement

Directions Served

Maximum Queue (m)

Average Queue (m)

95th Queue (m)

Link Distance (m)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (m)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (m)	44.4	6.5	10.0	54.8	19.2	5.4	71.2	75.1
Average Queue (m)	27.1	1.8	4.2	32.8	10.2	1.1	57.0	54.1
95th Queue (m)	48.5	7.2	14.8	60.0	23.1	9.8	89.6	88.0
Link Distance (m)	296.5	28.2					258.5	258.5
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			45.0			20.0		
Storage Blk Time (%)				3			62	
Queuing Penalty (veh)				0			1	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	T
Maximum Queue (m)	8.4	34.6	11.0	39.4	17.3	12.6	23.5	41.3	34.0	15.8
Average Queue (m)	3.0	20.7	3.0	28.0	10.8	4.3	14.1	26.3	21.8	5.8
95th Queue (m)	9.6	36.7	11.5	44.9	23.3	13.0	25.6	48.8	41.0	17.9
Link Distance (m)	76.6	228.2		226.3	226.3	226.3		242.2	242.2	242.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)								3		
Queuing Penalty (veh)								3		

Network Summary

Network wide Queuing Penalty: 5

Actuated Signals, Observed Splits
AM Peak Hour

10-19-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	44.5	11.0	44.7	13.1
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	88	0	88	0
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	6.0	38.4	14.9	61.0	14.9
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	25	0	25	25	25
Cycles @ Minimum (%)	25	0	13	0	13
Cycles Maxed Out (%)	25	100	0	75	0
Cycles with Peds (%)	0	13	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

HCM Signalized Intersection Capacity Analysis

5: Kingsway & Cochrane St/Argyle Ae

PM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	252	0	2	2	0	0	29	1663	1	0	1390	230
Future Volume (vph)	252	0	2	2	0	0	29	1663	1	0	1390	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9			6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		1.00			1.00		1.00	1.00			0.98	
Flt Protected		0.95			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1761			1805		1626	3538			3444	
Flt Permitted		0.73			0.75		0.09	1.00			1.00	
Satd. Flow (perm)		1346			1434		157	3538			3444	
Peak-hour factor, PHF	0.78	0.25	0.25	0.50	0.25	0.25	0.84	0.91	0.25	0.25	0.95	0.83
Adj. Flow (vph)	323	0	8	4	0	0	35	1827	4	0	1463	277
RTOR Reduction (vph)	0	73	0	0	0	0	0	0	0	0	18	0
Lane Group Flow (vph)	0	258	0	0	4	0	35	1831	0	0	1722	0
Confl. Peds. (#/hr)	3						3	4	1	1		4
Confl. Bikes (#/hr)							3					1
Heavy Vehicles (%)	1%	0%	50%	0%	0%	0%	11%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.4			20.4		43.5	43.5			43.5	
Effective Green, g (s)		18.4			20.4		43.5	43.5			43.5	
Actuated g/C Ratio		0.24			0.27		0.58	0.58			0.58	
Clearance Time (s)		6.5			4.5		6.9	6.9			6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5			4.5	
Lane Grp Cap (vph)		328			388		90	2043			1989	
v/s Ratio Prot								c0.52			0.50	
v/s Ratio Perm		c0.19			0.00		0.22					
v/c Ratio		0.79			0.01		0.39	0.90			0.87	
Uniform Delay, d1		26.6			20.1		8.7	13.9			13.4	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		11.4			0.0		4.8	5.9			4.5	
Delay (s)		38.1			20.1		13.4	19.8			18.0	
Level of Service		D			C		B	B			B	
Approach Delay (s)		38.1			20.1			19.7			18.0	
Approach LOS		D			C			B			B	
Intersection Summary												
HCM 2000 Control Delay		20.5			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.92										
Actuated Cycle Length (s)		75.3			Sum of lost time (s)			17.4				
Intersection Capacity Utilization		70.4%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

PM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (vph)	5	1	9	70	0	212	2	1395	49	182	992	1
Future Volume (vph)	5	1	9	70	0	212	2	1395	49	182	992	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		1.00	1.00	
Frt		0.94			0.90		1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1739			1642		1781	5045		1787	5081	
Flt Permitted		0.84			0.89		0.26	1.00		0.10	1.00	
Satd. Flow (perm)		1489			1489		489	5045		196	5081	
Peak-hour factor, PHF	0.63	0.25	1.00	0.74	0.25	0.92	0.50	0.90	0.91	0.90	0.95	0.25
Adj. Flow (vph)	8	4	9	95	0	230	4	1550	54	202	1044	4
RTOR Reduction (vph)	0	7	0	0	122	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	203	0	4	1600	0	202	1048	0
Confl. Peds. (#/hr)	9		10	10			19		20	20		19
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	2%	3%	1%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.4			15.4		34.4	34.4		44.4	44.4	
Effective Green, g (s)		15.4			15.4		34.4	34.4		44.4	44.4	
Actuated g/C Ratio		0.21			0.21		0.48	0.48		0.62	0.62	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		318			318		233	2410		253	3133	
v/s Ratio Prot								0.32		c0.07	0.21	
v/s Ratio Perm		0.01			c0.14		0.01			c0.43		
v/c Ratio		0.04			0.64		0.02	0.66		0.80	0.33	
Uniform Delay, d1		22.5			25.8		9.9	14.4		11.0	6.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			4.7		0.1	1.5		16.0	0.3	
Delay (s)		22.5			30.5		10.0	15.8		26.9	7.0	
Level of Service		C			C		B	B		C	A	
Approach Delay (s)		22.5			30.5			15.8			10.2	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay		15.2										
HCM 2000 Volume to Capacity ratio		0.79										
Actuated Cycle Length (s)		72.0								16.2		
Intersection Capacity Utilization		72.9%								C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

PM Peak Hour
Scenario 1: 2028 Future Total Conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	42	23	221	55	41	229
Future Volume (Veh/h)	42	23	221	55	41	229
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.83	0.88	0.59	0.90	0.85
Hourly flow rate (vph)	61	28	251	93	46	269
Pedestrians			1			
Lane Width (m)			3.6			
Walking Speed (m/s)			1.2			
Percent Blockage			0			
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	660	298			344	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	660	298			344	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	85	96			96	
cM capacity (veh/h)	415	747			1226	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	89	344	315			
Volume Left	61	0	46			
Volume Right	28	93	0			
cSH	482	1700	1226			
Volume to Capacity	0.18	0.20	0.04			
Queue Length 95th (m)	5.4	0.0	0.9			
Control Delay (s)	14.1	0.0	1.5			
Lane LOS	B		A			
Approach Delay (s)	14.1	0.0	1.5			
Approach LOS	B					
Intersection Summary						
Average Delay			2.3			
Intersection Capacity Utilization			43.0%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

PM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	15	3	3	5	270	0	3	1	237	29	6
Future Volume (Veh/h)	8	15	3	3	5	270	0	3	1	237	29	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.58	0.58	0.38	0.38	0.42	0.88	0.25	0.25	0.25	0.77	0.59	0.30
Hourly flow rate (vph)	14	26	8	8	12	307	0	12	4	308	49	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1002	691	59	710	699	14	69			16		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1002	691	59	710	699	14	69			16		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	89	91	99	97	96	71	100			81		
cM capacity (veh/h)	132	300	1012	278	296	1069	1545			1615		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	48	327	16	377								
Volume Left	14	8	0	308								
Volume Right	8	307	4	20								
cSH	239	917	1545	1615								
Volume to Capacity	0.20	0.36	0.00	0.19								
Queue Length 95th (m)	5.9	13.0	0.0	5.6								
Control Delay (s)	23.8	11.1	0.0	6.6								
Lane LOS	C	B		A								
Approach Delay (s)	23.8	11.1	0.0	6.6								
Approach LOS	C	B										
Intersection Summary												
Average Delay			9.5									
Intersection Capacity Utilization			45.6%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

PM Peak Hour
Scenario 1: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	15	12	73	8	9	9	30	208	10	11	181	15
Future Volume (vph)	15	12	73	8	9	9	30	208	10	11	181	15
Peak Hour Factor	0.58	0.55	0.78	0.44	0.67	0.67	0.61	0.93	0.56	0.83	0.88	0.70
Hourly flow rate (vph)	26	22	94	18	13	13	49	224	18	13	206	21
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	142	44	291	240								
Volume Left (vph)	26	18	49	13								
Volume Right (vph)	94	13	18	21								
Hadj (s)	-0.36	-0.10	0.02	-0.04								
Departure Headway (s)	4.9	5.3	4.7	4.7								
Degree Utilization, x	0.19	0.06	0.38	0.31								
Capacity (veh/h)	665	595	734	726								
Control Delay (s)	9.0	8.7	10.5	9.8								
Approach Delay (s)	9.0	8.7	10.5	9.8								
Approach LOS	A	A	B	A								
Intersection Summary												
Delay			9.9									
Level of Service			A									
Intersection Capacity Utilization			36.0%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

PM Peak Hour
Scenario 1: 2028 Future Total Conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕			↕
Traffic Volume (veh/h)	0	0	484	2	0	37
Future Volume (Veh/h)	0	0	484	2	0	37
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.91	0.25	0.25	0.69
Hourly flow rate (vph)	0	0	532	8	0	54
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)			372			
pX, platoon unblocked	0.84				0.84	0.84
vC, conflicting volume	540				536	536
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	361				356	356
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	90
cM capacity (veh/h)	1019				523	544
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	540	54		
Volume Left	0	0	0	0		
Volume Right	0	0	8	54		
cSH	1700	1700	1700	544		
Volume to Capacity	0.00	0.00	0.32	0.10		
Queue Length 95th (m)	0.0	0.0	0.0	2.6		
Control Delay (s)	0.0	0.0	0.0	12.3		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.3		
Approach LOS				B		
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			35.6%	ICU Level of Service	A	
Analysis Period (min)			15			

SimTraffic Simulation Summary PM Peak Hour

10-19-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	4:10	4:10	4:10	4:10	4:10	4:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1002	1055	1037	934	983	1001
Vehs Exited	944	1010	975	870	918	942
Starting Vehs	80	114	103	95	108	98
Ending Vehs	138	159	165	159	173	158
Travel Distance (km)	538	572	542	486	530	533
Travel Time (hr)	23.1	23.7	26.1	27.3	24.6	24.9
Total Delay (hr)	11.4	11.4	14.4	16.9	13.2	13.5
Total Stops	706	806	745	648	746	730
Fuel Used (l)	53.7	56.8	56.5	54.2	54.7	55.2

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	1002	1055	1037	934	983	1001
Vehs Exited	944	1010	975	870	918	942
Starting Vehs	80	114	103	95	108	98
Ending Vehs	138	159	165	159	173	158
Travel Distance (km)	538	572	542	486	530	533
Travel Time (hr)	23.1	23.7	26.1	27.3	24.6	24.9
Total Delay (hr)	11.4	11.4	14.4	16.9	13.2	13.5
Total Stops	706	806	745	648	746	730
Fuel Used (l)	53.7	56.8	56.5	54.2	54.7	55.2

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	WBL	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.2	1.6
Total Delay (hr)	0.3	0.0	0.0	0.0	0.3	0.7	0.0	6.7	1.2	9.1

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	0.9	0.0	0.2	0.4	1.6

Total Network Performance

Denied Delay (hr)	1.7
Total Delay (hr)	11.8

Queuing and Blocking Report
PM Peak Hour

10-19-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	10.8	6.1
Average Queue (m)	7.2	1.4
95th Queue (m)	14.2	6.5
Link Distance (m)	175.7	246.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	12.8	18.9	3.3
Average Queue (m)	6.7	13.1	0.7
95th Queue (m)	15.1	20.7	4.4
Link Distance (m)	125.3	296.5	179.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	10.3	8.9	15.5	16.6
Average Queue (m)	9.1	4.6	12.5	12.0
95th Queue (m)	11.3	11.9	18.0	18.6
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

PM Peak Hour

10-19-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement

Directions Served

Maximum Queue (m)

Average Queue (m)

95th Queue (m)

Link Distance (m)

Upstream Blk Time (%)

Queuing Penalty (veh)

Storage Bay Dist (m)

Storage Blk Time (%)

Queuing Penalty (veh)

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	WB	NB	NB	NB	SB	SB
Directions Served	LTR	LTR	L	T	TR	T	TR
Maximum Queue (m)	56.5	3.2	41.9	67.1	51.3	267.5	264.5
Average Queue (m)	36.0	0.6	19.9	55.5	37.3	208.2	204.8
95th Queue (m)	60.2	4.3	46.6	79.2	66.0	322.9	325.2
Link Distance (m)	296.5	28.2				258.5	258.5
Upstream Blk Time (%)						35	38
Queuing Penalty (veh)						0	0
Storage Bay Dist (m)			45.0				
Storage Blk Time (%)			1	11		95	
Queuing Penalty (veh)			8	3		0	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (m)	7.6	40.4	1.7	71.4	59.9	42.9	35.7	49.5	37.7	19.4
Average Queue (m)	1.8	27.0	0.3	58.0	42.5	24.1	22.7	34.7	23.0	9.9
95th Queue (m)	7.1	45.5	3.0	82.9	69.2	46.9	39.8	55.1	41.4	22.7
Link Distance (m)	75.4	228.2		226.3	226.3	226.3		241.2	241.2	241.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)							0	6		
Queuing Penalty (veh)							0	10		

Network Summary

Network wide Queuing Penalty: 21

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL NBTL	EBTL	SBTL	WBTL	
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	46.8	14.1	46.8	16.2
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	13	100	13
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL NBTL	EBTL	SBTL	WBTL	
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	6.0	35.5	17.8	56.9	17.8
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	13	0	13	14	13
Cycles @ Minimum (%)	13	0	0	0	0
Cycles Maxed Out (%)	63	100	25	86	25
Cycles with Peds (%)	0	25	13	14	0

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

AM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	193	0	3	4	0	2	18	945	1	2	1006	141
Future Volume (vph)	193	0	3	4	0	2	18	945	1	2	1006	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		1.00			0.95		1.00	1.00		1.00	0.98	
Flt Protected		0.95			0.97		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1771			1747		1703	3470		1805	3398	
Flt Permitted		0.72			0.82		0.20	1.00		0.14	1.00	
Satd. Flow (perm)		1340			1483		356	3470		269	3398	
Peak-hour factor, PHF	0.77	0.25	0.75	0.50	0.25	0.50	0.71	0.78	0.25	0.50	0.94	0.80
Adj. Flow (vph)	251	0	4	8	0	4	25	1212	4	4	1070	176
RTOR Reduction (vph)	0	76	0	0	9	0	0	0	0	0	15	0
Lane Group Flow (vph)	0	179	0	0	3	0	25	1216	0	4	1231	0
Confl. Peds. (#/hr)									1	1		
Confl. Bikes (#/hr)			2			3						
Heavy Vehicles (%)	2%	0%	0%	0%	0%	0%	6%	4%	0%	0%	4%	4%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.5			15.5		33.6	33.6		38.3	38.3	
Effective Green, g (s)		13.5			15.5		33.6	33.6		38.3	38.3	
Actuated g/C Ratio		0.21			0.24		0.52	0.52		0.59	0.59	
Clearance Time (s)		6.5			4.5		6.9	6.9		4.0	6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5		2.0	4.5	
Lane Grp Cap (vph)		277			352		183	1788		174	1996	
v/s Ratio Prot								c0.35		0.00	c0.36	
v/s Ratio Perm		c0.13			0.00		0.07			0.01		
v/c Ratio		0.65			0.01		0.14	0.68		0.02	0.62	
Uniform Delay, d1		23.7			19.0		8.2	11.8		7.2	8.7	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		4.5			0.0		0.6	1.3		0.0	0.7	
Delay (s)		28.2			19.0		8.8	13.1		7.2	9.4	
Level of Service		C			B		A	B		A	A	
Approach Delay (s)		28.2			19.0			13.0			9.4	
Approach LOS		C			B			B			A	
Intersection Summary												
HCM 2000 Control Delay		12.8										
HCM 2000 Volume to Capacity ratio		0.69										
Actuated Cycle Length (s)		65.2								17.4		
Intersection Capacity Utilization		58.2%								B		
Analysis Period (min)		15										
c Critical Lane Group												

G

Appendix G: Scenario 2-2028 Future Total Traffic Operations

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

AM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								  			  	
Traffic Volume (vph)	4	0	11	72	1	119	10	605	21	136	1030	0
Future Volume (vph)	4	0	11	72	1	119	10	605	21	136	1030	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frbp, ped/bikes		0.99			1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.90			0.92		1.00	0.99		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1673			1685		1798	4908		1782	4988	
Flt Permitted		0.91			0.86		0.24	1.00		0.32	1.00	
Satd. Flow (perm)		1538			1471		453	4908		600	4988	
Peak-hour factor, PHF	0.50	0.25	0.50	0.77	0.25	0.87	0.32	0.86	0.71	0.76	0.91	0.25
Adj. Flow (vph)	8	0	22	94	4	137	31	703	30	179	1132	0
RTOR Reduction (vph)	0	24	0	0	72	0	0	5	0	0	0	0
Lane Group Flow (vph)	0	6	0	0	163	0	31	728	0	179	1132	0
Confl. Peds. (#/hr)			2	2			6		12	12		6
Heavy Vehicles (%)	0%	0%	0%	3%	0%	1%	0%	5%	0%	1%	4%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.7			13.7		34.3	34.3		44.3	44.3	
Effective Green, g (s)		13.7			13.7		34.3	34.3		44.3	44.3	
Actuated g/C Ratio		0.20			0.20		0.49	0.49		0.63	0.63	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		300			287		221	2398		479	3147	
v/s Ratio Prot								0.15		0.03	c0.23	
v/s Ratio Perm		0.00			c0.11		0.07			c0.20		
v/c Ratio		0.02			0.57		0.14	0.30		0.37	0.36	
Uniform Delay, d1		22.8			25.6		9.9	10.8		5.5	6.2	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.0			3.1		1.3	0.3		0.5	0.3	
Delay (s)		22.9			28.7		11.2	11.1		6.0	6.5	
Level of Service		C			C		B	B		A	A	
Approach Delay (s)		22.9			28.7			11.1			6.4	
Approach LOS		C			C			B			A	
Intersection Summary												
HCM 2000 Control Delay		10.4										
HCM 2000 Volume to Capacity ratio		0.45										
Actuated Cycle Length (s)		70.2								16.2		
Intersection Capacity Utilization		69.1%								C		
Analysis Period (min)		15										
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

AM Peak Hour
Scenario 2: 2028 Future Total Conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	79	51	140	27	17	151
Future Volume (Veh/h)	79	51	140	27	17	151
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.70	0.88	0.50	1.00	0.85
Hourly flow rate (vph)	99	73	159	54	17	178
Pedestrians	1		1			1
Lane Width (m)	3.6		3.6			3.6
Walking Speed (m/s)	1.2		1.2			1.2
Percent Blockage	0		0			0
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	400	188			214	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	400	188			214	
tC, single (s)	6.5	6.2			4.3	
tC, 2 stage (s)						
tF (s)	3.6	3.3			2.4	
p0 queue free %	83	91			99	
cM capacity (veh/h)	583	858			1230	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	172	213	195			
Volume Left	99	0	17			
Volume Right	73	54	0			
cSH	675	1700	1230			
Volume to Capacity	0.25	0.13	0.01			
Queue Length 95th (m)	8.1	0.0	0.3			
Control Delay (s)	12.1	0.0	0.8			
Lane LOS	B		A			
Approach Delay (s)	12.1	0.0	0.8			
Approach LOS	B					
Intersection Summary						
Average Delay			3.9			
Intersection Capacity Utilization			35.8%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

AM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	4	3	0	3	166	0	2	0	202	23	1
Future Volume (Veh/h)	2	4	3	0	3	166	0	2	0	202	23	1
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.50	0.50	0.38	0.25	0.75	0.85	0.25	0.25	0.25	0.85	0.75	0.25
Hourly flow rate (vph)	4	8	8	0	4	195	0	8	0	238	31	4
Pedestrians		7									2	
Lane Width (m)		3.6									3.6	
Walking Speed (m/s)		1.2									1.2	
Percent Blockage		1									0	
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	723	524	40	529	526	10	42			8		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	723	524	40	529	526	10	42			8		
tC, single (s)	7.1	6.5	6.5	7.1	6.8	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.6	3.5	4.3	3.3	2.2			2.2		
p0 queue free %	98	98	99	100	99	82	100			85		
cM capacity (veh/h)	244	391	944	400	353	1064	1571			1619		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	20	199	8	273								
Volume Left	4	0	0	238								
Volume Right	8	195	0	4								
cSH	441	1022	1571	1619								
Volume to Capacity	0.05	0.19	0.00	0.15								
Queue Length 95th (m)	1.1	5.8	0.0	4.1								
Control Delay (s)	13.5	9.4	0.0	6.8								
Lane LOS	B	A		A								
Approach Delay (s)	13.5	9.4	0.0	6.8								
Approach LOS	B	A										
Intersection Summary												
Average Delay			8.0									
Intersection Capacity Utilization			36.6%			ICU Level of Service				A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

AM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Sign Control		Stop			Stop			Stop			Stop	
Traffic Volume (vph)	8	8	24	3	10	4	50	127	17	14	139	5
Future Volume (vph)	8	8	24	3	10	4	50	127	17	14	139	5
Peak Hour Factor	0.88	0.44	0.83	0.75	0.45	0.50	0.81	0.87	0.67	0.65	0.81	0.63
Hourly flow rate (vph)	9	18	29	4	22	8	62	146	25	22	172	8
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total (vph)	56	34	233	202								
Volume Left (vph)	9	4	62	22								
Volume Right (vph)	29	8	25	8								
Hadj (s)	-0.20	0.20	0.03	0.03								
Departure Headway (s)	4.7	5.2	4.4	4.4								
Degree Utilization, x	0.07	0.05	0.28	0.25								
Capacity (veh/h)	687	629	796	785								
Control Delay (s)	8.1	8.4	9.1	8.9								
Approach Delay (s)	8.1	8.4	9.1	8.9								
Approach LOS	A	A	A	A								
Intersection Summary												
Delay			8.9									
Level of Service			A									
Intersection Capacity Utilization			34.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

AM Peak Hour
Scenario 2: 2028 Future Total Conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		 				
Traffic Volume (veh/h)	0	0	366	2	0	29
Future Volume (Veh/h)	0	0	366	2	0	29
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.88	0.25	0.25	0.72
Hourly flow rate (vph)	0	0	416	8	0	40
Pedestrians		5			5	
Lane Width (m)		3.6			3.6	
Walking Speed (m/s)		1.2			1.2	
Percent Blockage		0			0	
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (m)			372			
pX, platoon unblocked	1.00				1.00	1.00
vC, conflicting volume	429				425	430
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	426				422	427
tC, single (s)	4.1				6.8	7.1
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.4
p0 queue free %	100				100	93
cM capacity (veh/h)	1136				561	551
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	424	40		
Volume Left	0	0	0	0		
Volume Right	0	0	8	40		
cSH	1700	1700	1700	551		
Volume to Capacity	0.00	0.00	0.25	0.07		
Queue Length 95th (m)	0.0	0.0	0.0	1.9		
Control Delay (s)	0.0	0.0	0.0	12.0		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.0		
Approach LOS				B		
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			30.9%	ICU Level of Service	A	
Analysis Period (min)			15			

SimTraffic Simulation Summary
AM Peak Hour

10-19-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	6:57	6:57	6:57	6:57	6:57	6:57
End Time	7:10	7:10	7:10	7:10	7:10	7:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	678	695	718	711	682	697
Vehs Exited	676	692	709	693	699	695
Starting Vehs	66	72	72	69	75	68
Ending Vehs	68	75	81	87	58	70
Travel Distance (km)	390	388	419	394	400	398
Travel Time (hr)	12.0	11.2	12.8	12.8	12.0	12.2
Total Delay (hr)	3.6	2.8	3.8	4.3	3.3	3.6
Total Stops	479	450	564	495	555	505
Fuel Used (l)	34.3	34.1	37.5	35.1	35.5	35.3

Interval #0 Information Seeding

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	678	695	718	711	682	697
Vehs Exited	676	692	709	693	699	695
Starting Vehs	66	72	72	69	75	68
Ending Vehs	68	75	81	87	58	70
Travel Distance (km)	390	388	419	394	400	398
Travel Time (hr)	12.0	11.2	12.8	12.8	12.0	12.2
Total Delay (hr)	3.6	2.8	3.8	4.3	3.3	3.6
Total Stops	479	450	564	495	555	505
Fuel Used (l)	34.3	34.1	37.5	35.1	35.5	35.3

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.2	0.0	0.0	0.0	0.0	0.1	0.3	0.0	1.4	0.2	2.2

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.3	0.7

Total Network Performance

Movement	All
Denied Delay (hr)	0.1
Total Delay (hr)	3.5

Queuing and Blocking Report
AM Peak Hour

10-19-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	20.0	3.5
Average Queue (m)	11.9	0.7
95th Queue (m)	22.1	4.9
Link Distance (m)	175.7	246.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB
Directions Served	LTR	LTR
Maximum Queue (m)	6.5	17.9
Average Queue (m)	2.0	13.9
95th Queue (m)	10.7	20.2
Link Distance (m)	125.3	296.5
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	14.7	8.6	15.3	16.3
Average Queue (m)	8.9	2.8	11.1	11.2
95th Queue (m)	17.4	11.7	16.8	17.5
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report
AM Peak Hour

10-19-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement	SB
Directions Served	R
Maximum Queue (m)	3.4
Average Queue (m)	0.7
95th Queue (m)	6.1
Link Distance (m)	72.0
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (m)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	WB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	TR	L	T	TR
Maximum Queue (m)	33.4	1.6	10.9	54.4	30.1	12.0	91.2	83.2
Average Queue (m)	23.1	0.3	5.8	33.0	16.6	2.4	59.4	56.6
95th Queue (m)	38.3	3.0	15.6	57.4	33.4	14.6	101.7	97.7
Link Distance (m)	296.5	28.2					258.5	258.5
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (m)			45.0			20.0		
Storage Blk Time (%)				2			63	
Queuing Penalty (veh)				0			1	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	T
Maximum Queue (m)	8.4	32.6	5.0	40.9	28.9	8.8	24.1	39.1	31.3	15.2
Average Queue (m)	3.3	19.9	2.8	28.8	13.0	3.3	14.1	27.8	22.0	5.4
95th Queue (m)	9.9	33.3	9.1	48.2	32.7	10.1	27.2	44.9	38.1	15.5
Link Distance (m)	76.6	228.2		226.3	226.3	226.3		242.2	242.2	242.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)							0	2		
Queuing Penalty (veh)							0	3		

Network Summary

Network wide Queuing Penalty: 5

Actuated Signals, Observed Splits
AM Peak Hour

10-19-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	44.8	10.8	45.1	13.0
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	88	0	88	0
Cycles with Peds (%)	0	0	0	0	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

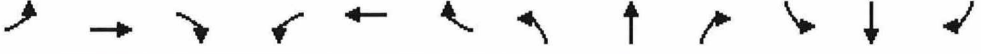
Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	6.0	38.5	13.2	46.8	13.2
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	44	0	0	0	0
Cycles @ Minimum (%)	0	0	25	0	25
Cycles Maxed Out (%)	22	100	13	100	13
Cycles with Peds (%)	0	13	0	14	0

Controller Summary

Average Cycle Length (s): NA
Number of Complete Cycles : 0

HCM Signalized Intersection Capacity Analysis 5: Kingsway & Cochrane St/Argyle Ae

PM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↙	↕		↙	↕	
Traffic Volume (vph)	262	0	2	2	0	0	29	1663	1	0	1390	241
Future Volume (vph)	262	0	2	2	0	0	29	1663	1	0	1390	241
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.5			4.5		6.9	6.9			6.9	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.95	
Frpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Flpb, ped/bikes		1.00			1.00		1.00	1.00			1.00	
Frt		1.00			1.00		1.00	1.00			0.98	
Flt Protected		0.95			0.95		0.95	1.00			1.00	
Satd. Flow (prot)		1762			1805		1626	3538			3441	
Flt Permitted		0.73			0.75		0.09	1.00			1.00	
Satd. Flow (perm)		1347			1431		158	3538			3441	
Peak-hour factor, PHF	0.78	0.25	0.25	0.50	0.25	0.25	0.84	0.91	0.25	0.25	0.95	0.83
Adj. Flow (vph)	336	0	8	4	0	0	35	1827	4	0	1463	290
RTOR Reduction (vph)	0	72	0	0	0	0	0	0	0	0	19	0
Lane Group Flow (vph)	0	272	0	0	4	0	35	1831	0	0	1734	0
Confl. Peds. (#/hr)	3					3	4		1	1		4
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	1%	0%	50%	0%	0%	0%	11%	2%	0%	0%	2%	1%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.1			21.1		43.3	43.3			43.3	
Effective Green, g (s)		19.1			21.1		43.3	43.3			43.3	
Actuated g/C Ratio		0.25			0.28		0.57	0.57			0.57	
Clearance Time (s)		6.5			4.5		6.9	6.9			6.9	
Vehicle Extension (s)		2.5			2.5		4.5	4.5			4.5	
Lane Grp Cap (vph)		339			398		90	2021			1965	
v/s Ratio Prot								c0.52			0.50	
v/s Ratio Perm		c0.20			0.00		0.22					
v/c Ratio		0.80			0.01		0.39	0.91			0.88	
Uniform Delay, d1		26.6			19.8		9.0	14.4			14.0	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		12.5			0.0		4.8	6.5			5.3	
Delay (s)		39.1			19.8		13.7	21.0			19.4	
Level of Service		D			B		B	C			B	
Approach Delay (s)		39.1			19.8			20.8			19.4	
Approach LOS		D			B			C			B	
Intersection Summary												
HCM 2000 Control Delay		21.8			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.93										
Actuated Cycle Length (s)		75.8			Sum of lost time (s)			17.4				
Intersection Capacity Utilization		71.0%			ICU Level of Service			C				
Analysis Period (min)		15										
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis 6: Notre Dame Ave & Driveway/Leslie St

PM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	5	1	9	78	0	214	2	1395	51	190	992	1
Future Volume (vph)	5	1	9	78	0	214	2	1395	51	190	992	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Lane Util. Factor		1.00			1.00		1.00	0.91		1.00	0.91	
Frpb, ped/bikes		0.99			0.98		1.00	1.00		1.00	1.00	
Flpb, ped/bikes		1.00			1.00		0.99	1.00		1.00	1.00	
Frt		0.94			0.91		1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1739			1645		1781	5043		1787	5081	
Flt Permitted		0.85			0.89		0.26	1.00		0.10	1.00	
Satd. Flow (perm)		1508			1483		489	5043		196	5081	
Peak-hour factor, PHF	0.63	0.25	1.00	0.74	0.25	0.92	0.50	0.90	0.91	0.90	0.95	0.25
Adj. Flow (vph)	8	4	9	105	0	233	4	1550	56	211	1044	4
RTOR Reduction (vph)	0	7	0	0	110	0	0	4	0	0	0	0
Lane Group Flow (vph)	0	14	0	0	228	0	4	1602	0	211	1048	0
Confl. Peds. (#/hr)	9		10	10			9	19		20	20	19
Confl. Bikes (#/hr)						3						1
Heavy Vehicles (%)	0%	0%	0%	2%	0%	1%	0%	2%	3%	1%	2%	0%
Turn Type	Perm	NA		Perm	NA		Perm	NA		pm+pt	NA	
Protected Phases		4			8			2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.5			16.5		34.4	34.4		44.4	44.4	
Effective Green, g (s)		16.5			16.5		34.4	34.4		44.4	44.4	
Actuated g/C Ratio		0.23			0.23		0.47	0.47		0.61	0.61	
Clearance Time (s)		6.3			6.3		5.9	5.9		4.0	5.9	
Vehicle Extension (s)		4.0			4.0		5.0	5.0		3.0	5.0	
Lane Grp Cap (vph)		340			334		230	2373		249	3086	
v/s Ratio Prot								0.32		c0.07	0.21	
v/s Ratio Perm		0.01			c0.15		0.01			c0.44		
v/c Ratio		0.04			0.68		0.02	0.67		0.85	0.34	
Uniform Delay, d1		22.1			25.9		10.3	15.0		12.5	7.1	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		0.1			6.1		0.1	1.6		22.5	0.3	
Delay (s)		22.2			32.0		10.5	16.6		34.9	7.4	
Level of Service		C			C		B	B		C	A	
Approach Delay (s)		22.2			32.0			16.6			12.0	
Approach LOS		C			C			B			B	
Intersection Summary												
HCM 2000 Control Delay			16.4			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			73.1			Sum of lost time (s)				16.2		
Intersection Capacity Utilization			74.3%			ICU Level of Service				D		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis

1: Mont Adam St & Sunrise Ridge Dr

PM Peak Hour
Scenario 2: 2028 Future Total Conditions

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	53	33	221	68	51	229
Future Volume (Veh/h)	53	33	221	68	51	229
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.69	0.83	0.88	0.59	0.90	0.85
Hourly flow rate (vph)	77	40	251	115	57	269
Pedestrians			1			
Lane Width (m)			3.6			
Walking Speed (m/s)			1.2			
Percent Blockage			0			
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	692	308			366	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	692	308			366	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	80	95			95	
cM capacity (veh/h)	393	736			1204	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	117	366	326			
Volume Left	77	0	57			
Volume Right	40	115	0			
cSH	467	1700	1204			
Volume to Capacity	0.25	0.22	0.05			
Queue Length 95th (m)	7.8	0.0	1.2			
Control Delay (s)	15.3	0.0	1.8			
Lane LOS	C		A			
Approach Delay (s)	15.3	0.0	1.8			
Approach LOS	C					
Intersection Summary						
Average Delay			2.9			
Intersection Capacity Utilization			45.6%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 2: Mont Adam St & Montebello St/Cochrane St

PM Peak Hour
Scenario 2: 2028 Future Total Conditions

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	15	3	3	5	281	0	5	1	247	30	6
Future Volume (Veh/h)	8	15	3	3	5	281	0	5	1	247	30	6
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.58	0.58	0.38	0.38	0.42	0.88	0.25	0.25	0.25	0.77	0.59	0.30
Hourly flow rate (vph)	14	26	8	8	12	319	0	20	4	321	51	20
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	1050	727	61	746	735	22	71			24		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	1050	727	61	746	735	22	71			24		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	88	91	99	97	96	70	100			80		
cM capacity (veh/h)	118	282	1010	260	279	1058	1542			1604		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	48	339	24	392								
Volume Left	14	8	0	321								
Volume Right	8	319	4	20								
cSH	220	903	1542	1604								
Volume to Capacity	0.22	0.38	0.00	0.20								
Queue Length 95th (m)	6.5	14.1	0.0	6.0								
Control Delay (s)	25.9	11.4	0.0	6.7								
Lane LOS	D	B		A								
Approach Delay (s)	25.9	11.4	0.0	6.7								
Approach LOS	D	B										
Intersection Summary												
Average Delay			9.6									
Intersection Capacity Utilization			46.9%		ICU Level of Service				A			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis 3: Mont Adam St & Mountain St

PM Peak Hour
Scenario 2: 2028 Future Total Conditions

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Sign Control		Stop			Stop			Stop			Stop									
Traffic Volume (vph)	15	12	83	8	9	9	40	208	10	11	181	15								
Future Volume (vph)	15	12	83	8	9	9	40	208	10	11	181	15								
Peak Hour Factor	0.58	0.55	0.78	0.44	0.67	0.67	0.61	0.93	0.56	0.83	0.88	0.70								
Hourly flow rate (vph)	26	22	106	18	13	13	66	224	18	13	206	21								
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total (vph)	154	44	308	240																
Volume Left (vph)	26	18	66	13																
Volume Right (vph)	106	13	18	21																
Hadj (s)	-0.38	-0.10	0.03	-0.04																
Departure Headway (s)	4.9	5.4	4.7	4.8																
Degree Utilization, x	0.21	0.07	0.41	0.32																
Capacity (veh/h)	660	581	726	715																
Control Delay (s)	9.2	8.7	11.0	10.0																
Approach Delay (s)	9.2	8.7	11.0	10.0																
Approach LOS	A	A	B	A																
Intersection Summary																				
Delay			10.1																	
Level of Service			B																	
Intersection Capacity Utilization			40.5%	ICU Level of Service				A												
Analysis Period (min)			15																	

HCM Unsignalized Intersection Capacity Analysis 4: Lloyd St & Mont Adam St

PM Peak Hour
Scenario 2: 2028 Future Total Conditions

						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↱			↱
Traffic Volume (veh/h)	0	0	484	4	0	38
Future Volume (Veh/h)	0	0	484	4	0	38
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.25	0.25	0.91	0.25	0.25	0.69
Hourly flow rate (vph)	0	0	532	16	0	55
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh						
Upstream signal (m)			372			
pX, platoon unblocked	0.82				0.82	0.82
vC, conflicting volume	548				540	540
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	333				323	323
tC, single (s)	4.1				6.8	6.9
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	90
cM capacity (veh/h)	1010				531	554
Direction, Lane #	EB 1	EB 2	WB 1	SB 1		
Volume Total	0	0	548	55		
Volume Left	0	0	0	0		
Volume Right	0	0	16	55		
cSH	1700	1700	1700	554		
Volume to Capacity	0.00	0.00	0.32	0.10		
Queue Length 95th (m)	0.0	0.0	0.0	2.6		
Control Delay (s)	0.0	0.0	0.0	12.2		
Lane LOS				B		
Approach Delay (s)	0.0		0.0	12.2		
Approach LOS				B		
Intersection Summary						
Average Delay			1.1			
Intersection Capacity Utilization			35.7%		ICU Level of Service	A
Analysis Period (min)			15			

SimTraffic Simulation Summary
PM Peak Hour

10-20-2023

Summary of All Intervals

Run Number	1	2	3	4	5	Avg
Start Time	3:57	3:57	3:57	3:57	3:57	3:57
End Time	4:10	4:10	4:10	4:10	4:10	4:10
Total Time (min)	13	13	13	13	13	13
Time Recorded (min)	10	10	10	10	10	10
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1008	1003	969	962	979	984
Vehs Exited	948	950	925	891	948	931
Starting Vehs	95	102	109	108	143	109
Ending Vehs	155	155	153	179	174	161
Travel Distance (km)	527	525	524	501	533	522
Travel Time (hr)	25.8	25.9	25.0	26.2	26.5	25.9
Total Delay (hr)	14.5	14.6	13.7	15.4	15.0	14.7
Total Stops	696	687	713	660	713	694
Fuel Used (l)	55.4	56.3	53.9	54.5	57.0	55.4

Interval #0 Information Seeding

Start Time	3:57
End Time	4:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

Interval #1 Information Recording

Start Time	4:00
End Time	4:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Run Number	1	2	3	4	5	Avg
Vehs Entered	1008	1003	969	962	979	984
Vehs Exited	948	950	925	891	948	931
Starting Vehs	95	102	109	108	143	109
Ending Vehs	155	155	153	179	174	161
Travel Distance (km)	527	525	524	501	533	522
Travel Time (hr)	25.8	25.9	25.0	26.2	26.5	25.9
Total Delay (hr)	14.5	14.6	13.7	15.4	15.0	14.7
Total Stops	696	687	713	660	713	694
Fuel Used (l)	55.4	56.3	53.9	54.5	57.0	55.4

1: Mont Adam St & Sunrise Ridge Dr Performance by movement

Movement	WBL	WBR	NBT	NBR	SBL	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

2: Mont Adam St & Montebello St/Cochrane St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1

3: Mont Adam St & Mountain St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

3: Mont Adam St & Mountain St Performance by movement

Movement	All
Denied Delay (hr)	0.0
Total Delay (hr)	0.1

4: Lloyd St & Mont Adam St Performance by movement

Movement	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.0

5: Kingsway & Cochrane St/Argyle Ae Performance by movement

Movement	EBL	EBT	EBR	NBL	NBT	NBR	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	1.4	0.3	1.8
Total Delay (hr)	0.3	0.0	0.0	0.5	0.8	0.0	7.4	1.3	10.2

6: Notre Dame Ave & Driveway/Leslie St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBR	NBL	NBT	NBR	SBL	SBT	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1	0.0	1.0	0.0	0.1	0.3	0.0	1.7

Total Network Performance

Denied Delay (hr)	1.8
Total Delay (hr)	12.9

Queuing and Blocking Report
PM Peak Hour

10-20-2023

Intersection: 1: Mont Adam St & Sunrise Ridge Dr

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (m)	12.5	9.9
Average Queue (m)	8.9	2.7
95th Queue (m)	12.9	10.3
Link Distance (m)	175.7	246.4
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (m)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 2: Mont Adam St & Montebello St/Cochrane St

Movement	EB	WB	SB
Directions Served	LTR	LTR	LTR
Maximum Queue (m)	9.1	17.2	1.7
Average Queue (m)	5.7	12.8	0.3
95th Queue (m)	12.8	19.1	3.0
Link Distance (m)	125.3	296.5	179.0
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (m)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Mont Adam St & Mountain St

Movement	EB	WB	NB	SB
Directions Served	LTR	LTR	LTR	LTR
Maximum Queue (m)	11.7	7.1	15.1	17.3
Average Queue (m)	9.6	3.9	10.2	12.5
95th Queue (m)	13.4	11.1	15.5	19.1
Link Distance (m)	92.5	143.1	28.0	49.4
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (m)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Queuing and Blocking Report

PM Peak Hour

10-20-2023

Intersection: 4: Lloyd St & Mont Adam St

Movement
Directions Served
Maximum Queue (m)
Average Queue (m)
95th Queue (m)
Link Distance (m)
Upstream Blk Time (%)
Queuing Penalty (veh)
Storage Bay Dist (m)
Storage Blk Time (%)
Queuing Penalty (veh)

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Movement	EB	NB	NB	NB	SB	SB
Directions Served	LTR	L	T	TR	T	TR
Maximum Queue (m)	49.5	40.8	70.4	61.9	265.6	266.9
Average Queue (m)	35.0	24.2	61.5	40.8	225.8	223.4
95th Queue (m)	55.1	51.6	80.7	69.1	314.7	318.7
Link Distance (m)	296.5				258.5	258.5
Upstream Blk Time (%)					40	46
Queuing Penalty (veh)					0	0
Storage Bay Dist (m)		45.0				
Storage Blk Time (%)		4	14		95	
Queuing Penalty (veh)		29	4		0	

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	L	T	T	TR
Maximum Queue (m)	10.0	43.2	1.7	89.4	74.5	48.8	31.2	37.2	33.8	19.1
Average Queue (m)	3.8	25.6	0.5	62.1	47.9	26.5	20.9	26.2	18.8	7.3
95th Queue (m)	11.4	54.0	3.6	95.0	81.6	56.8	35.6	43.4	38.5	22.5
Link Distance (m)	75.4	228.2		226.3	226.3	226.3		241.2	241.2	241.2
Upstream Blk Time (%)										
Queuing Penalty (veh)										
Storage Bay Dist (m)			105.0				35.0			
Storage Blk Time (%)				0			1	2		
Queuing Penalty (veh)				0			4	3		

Network Summary

Network wide Queuing Penalty: 41

Actuated Signals, Observed Splits
PM Peak Hour

10-20-2023

Intersection: 5: Kingsway & Cochrane St/Argyle Ae

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	43.1	23.5	43.1	25.5
Minimum Green (s)	5.0	5.0	5.0	5.0	5.0
Recall	None	Min	None	Min	None
Avg. Green (s)	0.0	47.3	15.3	47.3	17.3
g/C Ratio	-0.01	NA	NA	NA	NA
Cycles Skipped (%)	100	0	0	0	0
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	0	100	0	100	0
Cycles with Peds (%)	0	0	0	0	13

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0

Intersection: 6: Notre Dame Ave & Driveway/Leslie St

Phase	1	2	4	6	8
Movement(s) Served	SBL	NBTL	EBTL	SBTL	WBTL
Maximum Green (s)	6.0	34.1	26.0	34.1	26.0
Minimum Green (s)	5.0	20.0	8.0	20.0	8.0
Recall	None	Max	None	Max	None
Avg. Green (s)	5.8	35.6	22.0	56.6	22.0
g/C Ratio	-0.01	NA	-0.01	-0.01	-0.01
Cycles Skipped (%)	13	0	14	14	14
Cycles @ Minimum (%)	0	0	0	0	0
Cycles Maxed Out (%)	63	100	43	86	43
Cycles with Peds (%)	0	25	14	29	14

Controller Summary

Average Cycle Length (s): NA

Number of Complete Cycles : 0



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for **people**