



Chick-fil-A
Traffic Impact Assessment
Orleans, City of Ottawa

Type of Document:

TIA Strategy Report – Final Submission

Project Name:

Chick-fil-A – 4280 Innes Road, Ottawa, ON
Traffic Impact Assessment

Prepared By:

EXP Services Inc.
1595 Clark Boulevard
Brampton, ON L6T 4V1

Date:

2025-05-20

EXP Quality System Checks		
Project No.: BRM-23002042-H0		Date: 2025-05-20
Type of Document: Traffic Impact Study – Strategy Report – Final Submission		Revision No.: 3.5
Prepared By:	Dan Kang, P.Eng.	
Reviewed By:	Rick Zarzosa, P.Eng.	

Contents

Introduction

1. Screening
2. Scoping
3. Forecasting
4. Strategy

List of Figures

Figure 1: Site Location	4
Figure 2: Site Plan	6
Figure 3: Existing Lane Configuration and Traffic Controls	7
Figure 4: Existing Driveways within 200 meters.....	10
Figure 5: OC Transpo Network within the Study Area	11
Figure 6: Existing Traffic Volumes	12
Figure 7: Collision Location Map	14
Figure 8: 2031 Road Network Concept within the Study Area.....	15
Figure 9: Official Cycling Map for Ottawa-Gatineau.....	16
Figure 10: Map 5 Rapid Transit and Transit Priority Network – 2031 Affordable Network	17
Figure 11: Development-Generated Trips.....	21
Figure 12: 2025 Background Traffic Volumes.....	22
Figure 13: 2030 Background Traffic Volumes.....	22
Figure 14: 2025 Total Traffic Volumes.....	23
Figure 15: 2030 Total Traffic Volumes.....	23
Figure 16: Overall Site Plan	25
Figure 17: Internal Driveway Circulation and Drive-Thru Access Locations	25
Figure 18: Transit and Transit Priority Network Map 2031, City of Ottawa	28

List of Tables

Table 1: Available Turning Movement Counts	12
Table 2: Existing Traffic Operation Summary	13
Table 3: Collision Data Summary.....	14
Table 4: Exemptions Review.....	19
Table 5: Summary of Trip Generation Rates	20
Table 6: 2020 TRANS Mode Shares - Orleans Area	20
Table 7: Proposed Development Mode Shares.....	20
Table 8: Trip Generation by Mode	20
Table 10: Vehicle Parking Requirement Per Zoning By-Law.....	26
Table 11: Bicycle Parking Requirement Per Zoning By-Law	26
Table 12: MMLOS – Boundary Street Segment.....	26
Table 13: Multi-Modal Level of Service - Intersections	29
Table 14: 2025 & 2030 Background Traffic Operation Summary.....	30
Table 15: 2025 & 2030 Total Traffic Operation Summary.....	32

List of Appendices

Appendix A: Site Plan
Appendix B: TIA Screening Form
Appendix C: City of Ottawa Turning Movement Counts
Appendix D: Detailed Synchro Report
Appendix E: City of Ottawa Collision Data
Appendix F: Drive-Thru Operation
Appendix G: Detailed Multi-Modal Level of Service (MMLOS) Analysis - Road Segment
Appendix H: TDM infrastructure Checklist
Appendix I: Detailed Multi-Modal Level of Service (MMLOS) Analysis - Intersection

INTRODUCTION

EXP was retained to conduct a Traffic Impact Assessment (TIA) for the proposed Chick-fil-A development at 4280 Innes Road in Orleans, Ottawa, ON. The site is located on the south side of Innes Road, between Du Grand Bois Avenue and Lanthier Drive.

Figure 1 illustrates the proposed development; the detailed site plan is provided in **Appendix A**.



Figure 1: Site Location

1 SCREENING

A TIA screening form was completed for the proposed development to determine the requirements for the assessment. The findings are summarized as follows:

- **Trip Generation Trigger** The development is anticipated to be built over a ground floor area of 460 square meters (4,948 square feet). According to the Institute of Transportation Engineers (ITE) trip generation 11th manual, the estimated number of trip generation generated during peak hours is higher than the City of Ottawa established threshold. Thus, the Trip generation trigger is satisfied.
- **Location Trigger** The development doesn't propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks nor it is situated in a Design Priority Area or Transit Oriented Development zone. Thus, the location trigger is not satisfied.
- **Safety Trigger** According to the City of Ottawa screening guidelines, the safety trigger is satisfied.

Upon review of the City's screening assessment, EXP has confirmed the need to complete a TIA for the proposed development.

A copy of the completed screening form is included in **Appendix B**.

2.1.1 Proposed Development

There are two main access points for ingress and egress, one on the left (southwest) and another on the right (east side), designed to support traffic flow around the building. The plan includes two drive-thru lanes with stacking capacity, which is designed to handle a high volume of vehicles during peak times. The development features a one-story commercial building with a ground floor area of 461.94 square meters (4,741.81 square feet) and 46 on-site parking spaces, including two accessible spaces.



2.1.2 Existing Roadways

The following outlines the existing site characteristics of the roads and intersections in the vicinity of the subject site are described below.

- **Innes Road** is a four-lane east-west arterial road with a pocket bike lane in both directions and a 60 km/h speed limit. There is a sidewalk along both sides of the road. Innes Road is designated as a truck route in Ottawa, the road's infrastructure supports heavy vehicle traffic, with multiple lanes and connections to major highways, facilitating efficient truck movement through the city. Innes Road has a 40 m protected Right-Of-Way (ROW) per Schedule C16 of the City's Official Plan, with unequal widening: 14 m on the north side and 26m on the south. While most of the study area meets the 40 m ROW, there are localized constraints near the Chick-fil-A site. Approximately 3-4 m of property along the site frontage must be dedicated from the north ROW line to achieve the required 40 m ROW.
- **Tenth Line Road** is a four-lane north-south arterial road with pocket bike lanes in both directions, a 60 km/h speed limit, and sidewalks along both sides. It serves as a designated truck route, supporting heavy vehicle traffic with its multi-lane configuration and connections to major routes like Highway 417 and Innes Road, facilitating efficient movement through the city's east end. Per Schedule C16 of the City's Official Plan, Tenth Line Road has a protected 40 m Right-of-Way (ROW).
- **Mer-Blue Road/Jeanne d'Arc Boulevard** is a four-lane north-south arterial road with pocket bike lanes in both directions, a 60 km/h speed limit, and sidewalks on both sides. It serves as a key truck route in Ottawa's east end, with its multi-lane design and connections to Highway 174 and St. Joseph Boulevard supporting heavy vehicle traffic and regional access. Per Schedule C16 of the City's Official Plan, Jeanne d'Arc Boulevard has a protected 40 m Right-of-Way (ROW).
- **Lanthier Drive/Prestwick Drive** is a two-lane collector road with a 40 km/h posted speed. Lanthier Drive has sidewalks on both sides, while Prestwick Drive has a sidewalk only on the southbound side (west side of the road). On-street parking is restricted at all times. According to the City of Ottawa's Urban Truck Routes Map, these roads are not designated as truck routes.
- **Drive-In/Out Access east of Swiss Chalet** is a north-south two-lane access with one eastbound right turn lane into the plaza and a restricted right turn exit. The two-lane access is separated by a median with a sidewalk on the west side of the access.
- **Trinity Crossing Mall Access** is a signalized T-intersection with two northbound left-turn lanes and one right-turn lane. There are sidewalks on both sides.

The existing lane configuration and traffic controls for the study area are presented in **Figure 3**.

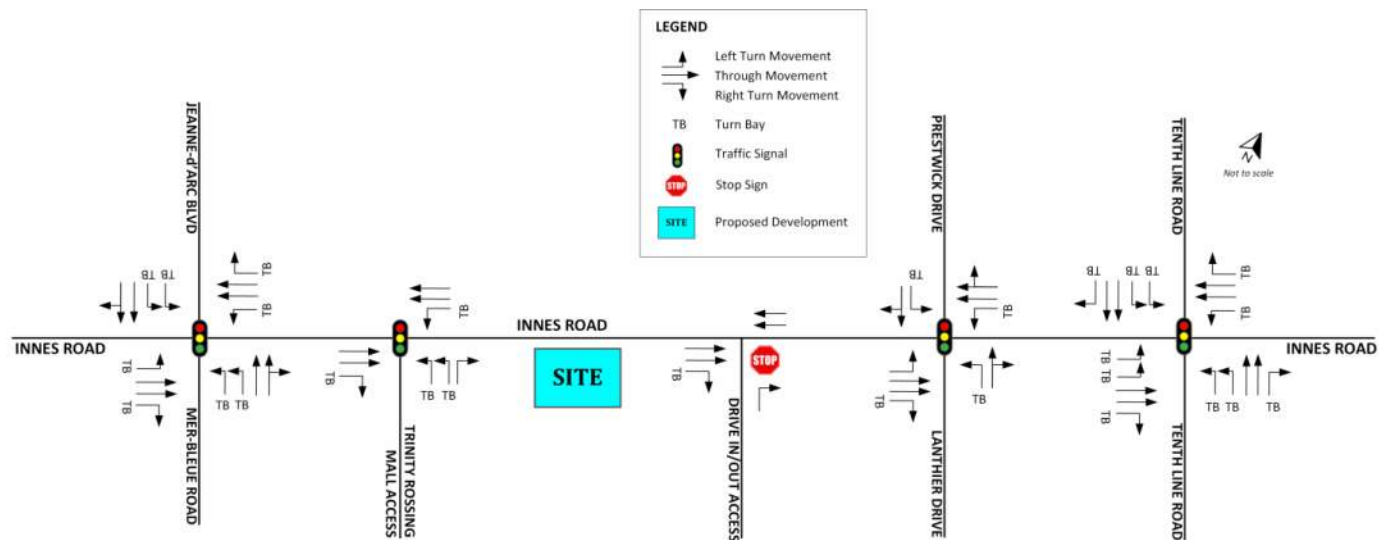


Figure 3: Existing Lane Configuration and Traffic Controls

2.1.3 Existing Intersections



Innes Road & Jeannes d'Arc Boulevard/Mer-Bleue Road

- Signalized intersection features two eastbound and two westbound through lanes on Innes Road, a dedicated left-turn lane on both eastbound and westbound approaches.
- Northbound and southbound directions have two through lanes and a dedicated dual left-turn lane.
- A channelized right-turn lane is provided on all four approaches.
- A pocket bike lane with pavement markings presents on all approaches.
- Sidewalks are present on both sides of all four approaches.



Innes Road & Trinity Crossing Mall Access

- It is a T-signalized intersection with dedicated eastbound right-turn lane and westbound left-turn lane.
- Northbound includes two fully protected left-turn lanes and one right-turn lane.
- The westbound left-turn movement is a protected-permissive phase.
- Sidewalks are present on both sides of Trinity Crossing Mall Access and Innes Road.
- A pocket bike lane with pavement markings runs along Innes Road.



Innes Road & Drive-In/Out Access

- It is an un-signalized access with one eastbound right turn lane into the mall and a restricted right turn exit.
- Sidewalks are present on both sides of Innes Road.
- A pocket bike lane with pavement markings runs along Innes Road.



Innes Road & Lanthier Drive/Prestwick Drive

- Signalized intersection features two eastbound and two westbound through lanes on Innes Road, a dedicated left-turn lane, and a channelized right-turn lane from eastbound Innes Road onto Lanthier Drive.
- Northbound and southbound directions (Lanthier Drive/Prestwick Drive) each have one through lane and a dedicated left-turn lane.
- A pocket bike lane with pavement markings runs along Innes Road in both directions.
- Sidewalks are present on both sides of Innes Road and Lanthier Drive, but only on the west side of Prestwick Drive.



Innes Road & Tenth Line Road

- Signalized intersection features two eastbound and two westbound through lanes on Innes Road, a dedicated left-turn lane on westbound approach and dual left-turn lanes on eastbound approaches.
- Northbound and southbound directions (Tenth Line Road) have two through lanes and dual left-turn lanes.
- A channelized right-turn lane is provided on all four approaches.
- A pocket bike lane with pavement markings runs along Innes Road in both directions.
- Sidewalks are present on both sides of Innes Road and Tenth Line Road.

2.1.4 Existing Driveways

Within a 200 m radius around the proposed site access, all driveways are situated around the plaza. However, the four main driveways are located at the Drive-In/Out access and the Trinity Crossing Mall access. **Figure 4** below illustrates these four existing driveway locations.



Figure 4: Existing Driveways within 200 meters

2.1.5 Pedestrian and Cycling Facilities

Existing concrete sidewalks are present along the following areas:

- On both sides of Innes Road;
- Approximately 115 m South of Lanthier Drive on both sides;
- On the west side only of Prestwick Drive;
- Approximately 152 m west of the Drive-In/Out access; and
- Approximately 118 m on both sides of the Trinity Crossing Mall Access.

Cycling facilities around the site are only present along Innes Road as conventional bike lanes on both sides of the roadway.

2.1.6 Existing Transit Operations

Two bus routes pass by the site. The nearest westbound bus stop is 160 m from the proposed development and the nearest eastbound stop is 100 m away. The following transit routes serve the proposed development:

Route 25: Millennium 2A/Ottawa to Carson's/Montreal

Route 25 operates between Millennium and Carson's Road at Montreal Road. It runs daily during morning and afternoon hours with total trip duration of 35 minutes, with 64 stops.

Route 138: Orleans to Vantage/Ad.303

Route 138 runs from Place d'Orleans 2C to Vantage/Ad.303 which is very close to the site location. It operates daily during morning and afternoon hours, with a total trip duration of 35 minutes and 47 stops.

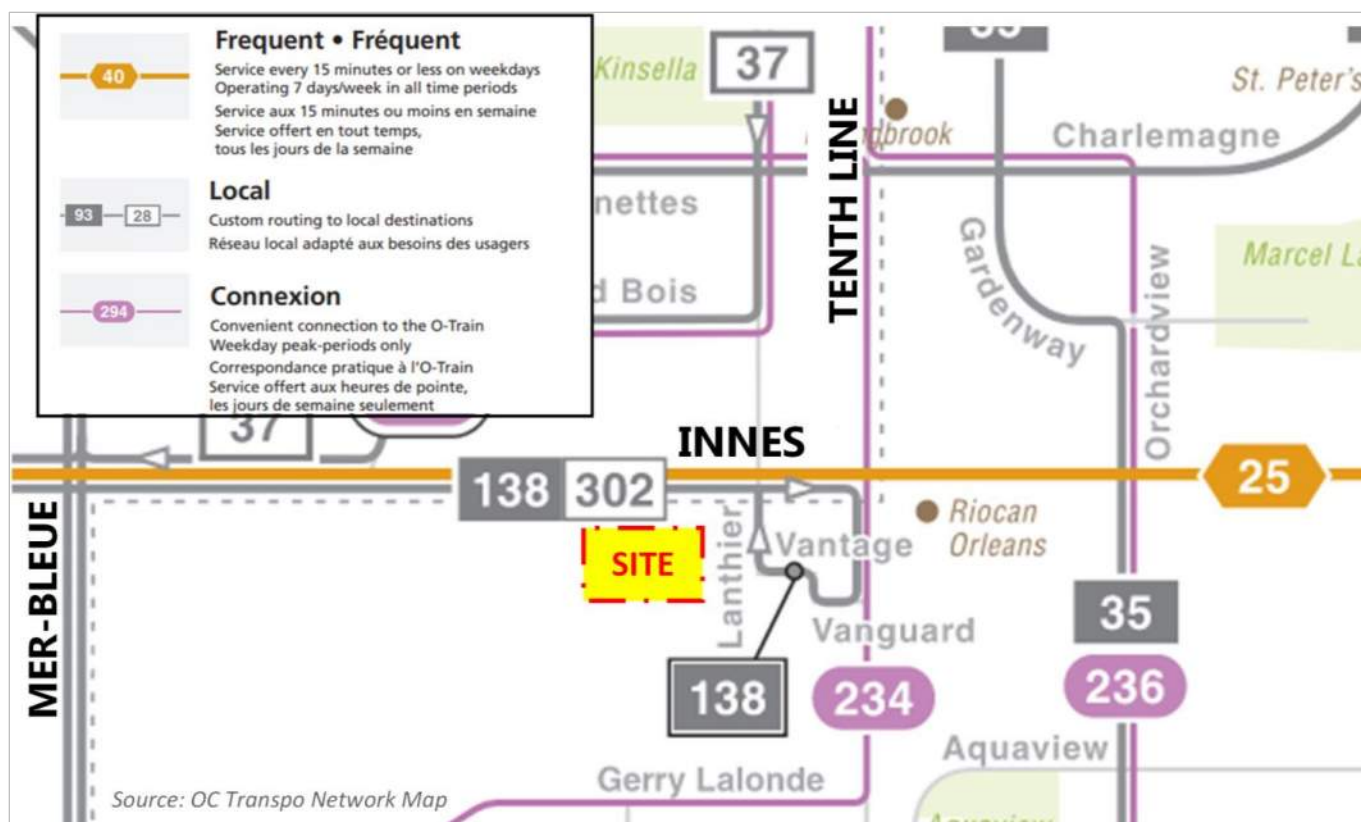


Figure 5: OC Transpo Network within the Study Area

Figure 5 above illustrates the current OC Transpo Network Map within the study area. OC Transpo's "New Ways to Bus" initiative, launching in April 2025, aims to enhance transit service by improving frequency, local connectivity, and integration with the expanded O-Train network. Key features include Frequent Routes, offering service every 15 minutes or less from 6 AM to 6 PM on weekdays, operating seven days a week along major roads; Local Service, with redesigned routes to better serve neighborhoods and transit hubs, ensuring smoother connections to Frequent routes and the O-Train; and Connexion Routes, providing quick and convenient connections to the O-Train during weekday peak hours. As part of the preparations, OC Transpo has begun updating signage and maps at bus stops to reflect the upcoming changes. This "New Ways to Bus" initiative will represent a significant redesign of Ottawa's bus network, aiming to provide more efficient and reliable transit services citywide. For detailed information on specific route changes to our study area bus routes anticipated as part of the "New Ways to Bus" service is below.

Route 25: Millennium 2A/Ottawa to Carson's/Montreal

Route changes include extending service to run between Millennium Station and Wateridge Village on weekdays. Service on Matheson Road, Charlton Drive, and Plumber Avenue will be removed, with the route shifting to Bathgate Drive. It will replace Route 27 service on Montréal, Wanaki, Mikinak, Codd's, and Carson's roads, but will not serve Wanaki, Mikinak, or Codd's roads on weekends.

Route 138: Orleans to Vantage/Ad.303.

The route will operate between Place d'Orléans Station and Hiawatha Park Road, serving St-Louis Drive, Orléans Boulevard, Jeanne d'Arc Boulevard, Grey Nuns Drive, and St-Joseph Boulevard. Service on Champlain Street and Jeanne d'Arc Boulevard (between Orléans Boulevard and Champlain Street) will be removed. It will replace Route 131 on St-Joseph Boulevard between Orléans Boulevard and Grey Nuns Drive. Service on Orléans Boulevard south of St-Joseph Boulevard will be provided by Route 34, while service from Viseneau Drive to Tenth Line Road will be covered by Route 31 and Route 25 on Innes Road.

2.1.7 Existing Traffic Management Measures

No Area Traffic Management studies have been completed or are currently underway within the study area. Additionally, no traffic calming measures have been implemented along the roadways in the study area.

2.1.8 Existing Traffic Volumes and Operation

Existing traffic volumes at the study intersections were provided by the City of Ottawa's Transportation Data Department. The dates of the traffic counts collected are shown in **Table 1**.

Table 1: Available Turning Movement Counts

Intersection	Collected Date
Innes Road & Jeannes d'Arc Boulevard / Mer-Bleue Road	Thursday, January 9, 2020 Saturday, February 1, 2020
Innes Road & Trinity Crossing Mall Access	Thursday, February 20, 2020 Saturday, October 12, 2024
Innes Road & Drive-In/Out access of Swiss Chalet	Tuesday, September 17, 2024 Saturday, October 12, 2024
Innes Road & Lanthier Drive / Prestwick Drive	Thursday, February 23, 2023 Saturday, March 4, 2023
Innes Road & Tenth Line Road	Thursday, January 9, 2020 Saturday, February 1, 2020

Existing weekday and weekend afternoon peak-hour traffic volumes are shown in **Figure 6**.

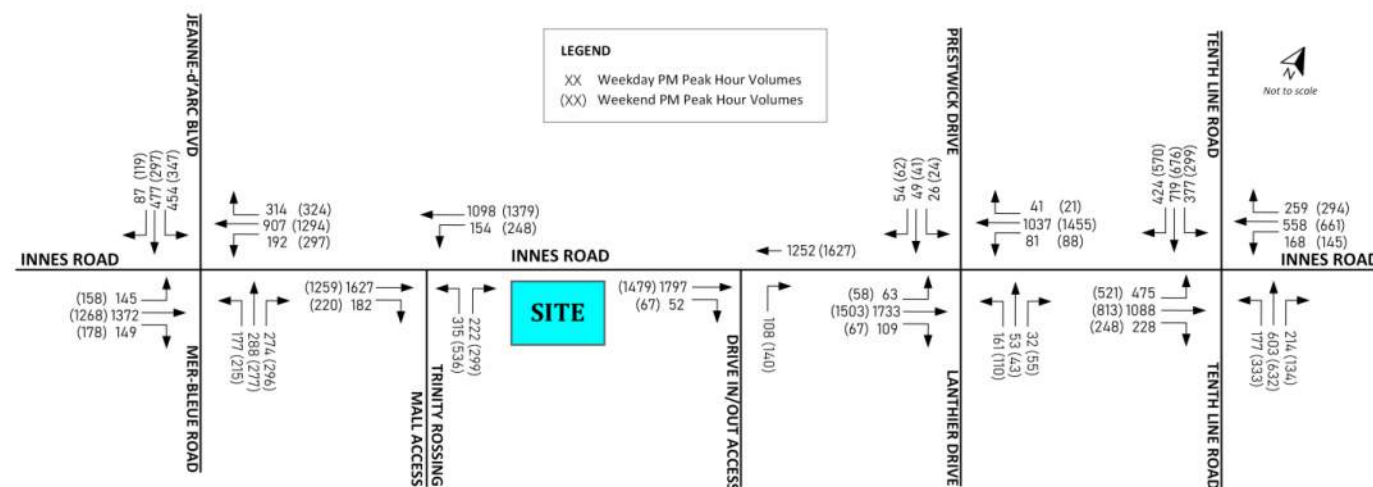


Figure 6: 2024 Existing Traffic Volumes

It should be noted that the data collected in 2020 for the intersection of Innes Road and Tenth Line Road appeared to be missing the northbound right-turning movement volume. Therefore, a volume of 200 vehicles per hour was assumed in the analysis. Turning movement count data provided by the City of Ottawa is included in **Appendix C**.

As prescribed by Section 6.1 of the City's MMLOS Guidelines¹, Intersection evaluations should assess signalized intersections by analyzing volume-to-capacity (V/C) ratios for both the overall intersection and individual movements. For unsignalized intersections, the evaluation should determine the level of service (LOS) when it falls between A and E, while for LOS F, capacity should be assessed based on a gap analysis using v/c ratios.

The existing traffic operations were assessed using Synchro software and the detailed results, provided in **Appendix D** are summarized in **Table 2**.

¹ Prepared for City of Ottawa by IBI Group September 15, 2015

Table 2: 2024 Existing Traffic Operation Summary

Intersection	Traffic Control	Key Movements	Weekday PM Peak Hour				Weekend PM Peak Hour			
			LOS	Delay (s)	v/c ratio	95 th Queue (m)	LOS	Delay (s)	v/c ratio	95 th Queue (m)
Innes Road & Jeannes d'Arc Boulevard / Mer-Bleue Road		EB-L	B	32.5	0.69	#34.0	E	91.6	0.96	#73.2
		EB-T	F	88.0	1.09	#251.6	F	89.7	1.09	#235.2
		EB-R	A	3.1	0.22	9.3	A	4.5	0.28	13.7
		WB-L	F	159.9	1.20	#94.7	F	131.3	1.16	#134.3
		WB-T	C	34.1	0.73	149.1	E	49.1	0.97	#217.6
		WB-R	A	7.6	0.43	35.8	A	4.1	0.42	19.3
		NB-L	C	76.2	0.75	#38.4	C	75.1	0.78	#45.0
		NB-TR	E	62.8	0.93	#92.3	E	58.6	0.92	#89.4
		SB-L	F	133.1	1.13	#102.2	F	136.5	1.12	#82.6
		SB-TR	D	56.0	0.82	93.0	C	52.1	0.72	66.8
		Overall	E	68.4	-	-	E	69.4	-	-
Innes Road & Trinity Crossing Mall Access		EB-T	F	44.5	1.05	m#190.4	E	33.2	0.99	m153.1
		EB-R	A	4.0	0.25	m2.6	A	9.5	0.36	m22.7
		WB-L	A	44.1	0.52	50.7	C	58.2	0.73	m#92.0
		WB-T	A	4.4	0.52	46.5	B	6.9	0.69	40.4
		NB-L	B	55.6	0.65	49.9	C	54.2	0.78	81.0
		NB-R	C	49.6	0.78	59.6	B	27.9	0.69	60.4
		Overall	C	31.5	-	-	C	26.7	-	-
Innes Road & Drive In/Out Access		EB-T	A	0.0	0.59	0.0	A	0.0	0.48	0.0
		EB-R	A	0.0	0.03	0.0	A	0.0	0.05	0.0
		WB-T	A	0.0	0.41	0.0	A	0.0	0.53	0.0
		NB-R	A	13.7	0.22	6.0	B	12.5	0.26	7.1
		Overall	A	0.5	-	-	A	0.6	-	-
Innes Road & Prestwick Drive/Lanthier Drive		EB-L	B	12.7	0.35	m4.7	C	58.7	0.71	m12.6
		EB-T	F	45.7	1.05	m#69.3	E	42.1	0.95	m#224.0
		EB-R	A	2.7	0.15	m1.1	A	9.7	0.09	m4.4
		WB-L	B	38.6	0.68	m#16.2	A	38.9	0.58	m11.9
		WB-TR	A	11.7	0.57	108.2	C	9.7	0.77	m51.6
		NB-L	A	50.3	0.58	60.0	A	43.9	0.39	41.0
		NB-TR	A	29.6	0.21	26.4	A	23.0	0.24	25.2
		SB-L	A	37.3	0.09	12.6	A	37.3	0.09	12.0
		SB-TR	A	25.3	0.25	27.7	A	27.9	0.26	29.7
		Overall	C	32.1	-	-	C	27.2	-	-
Innes Road & Tenth Line Road		EB-L	D	44.0	0.85	m50.6	E	51.3	0.97	m#73.7
		EB-T	E	31.8	0.97	m150.4	C	45.7	0.80	m126.6
		EB-R	A	9.1	0.37	m20.3	A	20.0	0.42	m43.0
		WB-L	F	171.4	1.16	#95.1	C	70.3	0.71	55.7
		WB-T	B	45.8	0.66	88.8	C	48.2	0.76	104.3
		WB-R	A	6.9	0.46	20.7	A	11.7	0.53	36.5
		NB-L	B	64.0	0.61	34.1	E	88.0	0.93	#71.9
		NB-T	E	71.8	0.94	#115.5	E	74.2	0.96	#122.2
		NB-R	A	12.4	0.49	27.8	A	8.9	0.34	16.4
		SB-L	F	118.4	1.07	#85.8	D	78.0	0.86	#61.8
		SB-T	F	82.9	1.01	#149.4	F	91.3	1.03	#135.4
		SB-R	C	19.0	0.74	63.1	E	71.0	1.05	#157.4
		Overall	E	55.3	-	-	E	59.5	-	-

Notes: NB=Northbound SB=Southbound EB=Eastbound WB=Westbound L=left R=right T=through, m = metered queue, # = volume for the 95th %ile cycle exceeds capacity

The Synchro analysis of 2024 existing traffic operations at five intersections along Innes Road reveals notable performance differences during weekday and weekend PM peak hours. Synchro estimates results based on vehicle delays and the physical space they occupy, with a “metered queue” specifically reflecting the queue formed due to the metering process. Metered queues are critical for analyzing bottlenecks, evaluating ramp metering effectiveness, and optimizing signal plans to balance flow between arterials and highways. Additionally, the # symbol serves as a warning of potential operational issues in the traffic network; if a lane’s 95th percentile queue is listed as “#,” it may indicate that the queue exceeds the link’s storage length, potentially causing spillback.

The signalized intersection of Innes Road and Jeannes d’Arc Boulevard/Mer-Bleue Road experiences significant congestion, with an overall Level of Service (LOS) E during both weekday and weekend peak hours, driven by heavy eastbound and westbound left-turn movements. Similarly, Innes Road and Tenth Line Road face challenges, maintaining an overall LOS E with delays ranging from 55 to 59 seconds. Most movements at this intersection appear to experience problematic traffic flow, suggesting near-capacity conditions.

In contrast, Innes Road and Trinity Crossing Mall Access, as well as Innes Road and Prestwick Drive/Lanthier Drive, operate efficiently at LOS B and C, respectively, with delays ranging from 27 to 32 seconds and queues under 60 meters, reflecting manageable traffic flow. The all-way stop at Innes Road and Drive In/Out Access performs exceptionally well, achieving LOS A with minimal delays, indicating a very light traffic impact.

2.1.9 Collision History

Collision data for the period from 2017 to 2022 along Innes Road was provided by the City of Ottawa. The data was reviewed to identify any collision patterns. **Table 3** summarizes the collision data for the intersections analyzed, with the raw data included in **Appendix E**.

Table 3: Collision Data Summary

		Lanthier Dr / Prestwick Dr	Innes Road bet. Lanthier Drive & Drive in/out Access	Innes Road bet. Drive in/out Access & Trinity Crossing Mall Entrance
Classification	Non-Fatal Injury	2	1	1
	Property Damage Only	6	3	4
	Non-Reportable	-	-	-
Collision Type	Rear End	2	3	3
	Sideswipe	1	-	2
	Turning Movement	3	1	1
	Angle	3	-	-
	SMV Other	-	-	-
		-	-	-
Road Surface	Wet	1	-	3
	Dry	7	4	1
	Slush	-	-	1
Environment	Clear	9	4	2
	Rain	-	-	1
	Snow	-	-	2
Light	Dawn	-	-	-
	Daylight	8	4	3
	Dusk	1	-	-
	Dark	-	-	2

The most collisions occur along Lanthier Drive/Prestwick Drive during daylight hours, primarily due to turning or angle movements, resulting mostly in property damage. **Figure 7** below indicates the exact locations of these collisions.



Figure 7: Collision Location Map

No areas within the study were identified as high-risk or in need of immediate modifications. This indicates that the current infrastructure and traffic conditions are operating within acceptable safety and efficiency thresholds. While no urgent changes are required, regular monitoring and periodic assessments are recommended to ensure conditions remain safe and functional under future traffic demands or changing circumstances.

2.1.10 Planned Conditions

2.1.10.1 Road Network Improvements

Figure 8 shows the 2031 Network Concept proposed in the City's 2013 Transportation Master Plan (TMP) for the area surrounding the proposed site.



Figure 8: 2031 Road Network Concept within the Study Area

The proposed site, located at 4280 Innes Road, is classified as an arterial roadway under the jurisdiction of the City of Ottawa. It currently consists of a two-lane per direction cross-section. The planned traffic conditions for the area surrounding the proposed site include infrastructure upgrades as part of the Road Network Concept² 2031. New arterial roads and widened arterials south of Mer Bleue Road and Innes Road are proposed to enhance regional connectivity and accommodate future traffic growth.

The City of Ottawa has also planned the extension of Vanguard Drive to improve connectivity in the Orléans area, supporting ongoing and future developments. Various planning documents, including a 2018 subdivision proposal and a 2023 Transportation Impact Assessment, indicate that the extension will provide access to new developments such as 1001 Noëlla Leclair Way and 4200 Innes Road. An online published City memo³ confirms that 2060 Lanthier Drive is adjacent to the future extension, while a 2023 design brief highlights that Vanguard Drive's extension is designated as a Major Pathway in the city's Active Transportation Network.

These improvements are strategically designed to support the area's anticipated population and employment growth, directly benefiting the site by improving accessibility and traffic flow within the surrounding network.

² City of Ottawa, Transportation Master Plan 2023 – Map 10

³ Newcomer Reception System Update, November 7, 2024

2.1.10.2 Walking and Cycling

Figure 9 illustrates the Cycling Network as outlined in the City's Official Cycling Map, which identifies Innes Road as a "Spine Route" with designated cycling lanes, indicating a focus on accommodating various modes of transportation.

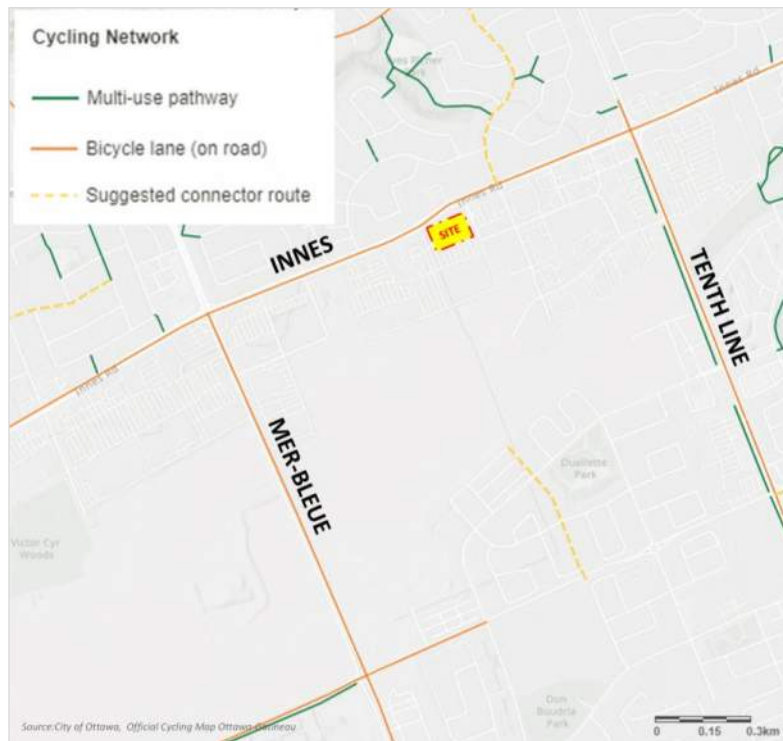


Figure 9: Official Cycling Map for Ottawa-Gatineau

Overall, the study area road network has been developed well with pedestrian facilities, including sidewalks and cycling facilities, to support safe and efficient pedestrian movement.

2.1.10.3 Transit

Figure 10 illustrates the 2031 Affordable Transit Priority Network as outlined in the City's 2013 Transportation Master Plan (TMP), which identifies transit signal priority and queue jump lanes on Innes Road at the study area intersections by 2031.

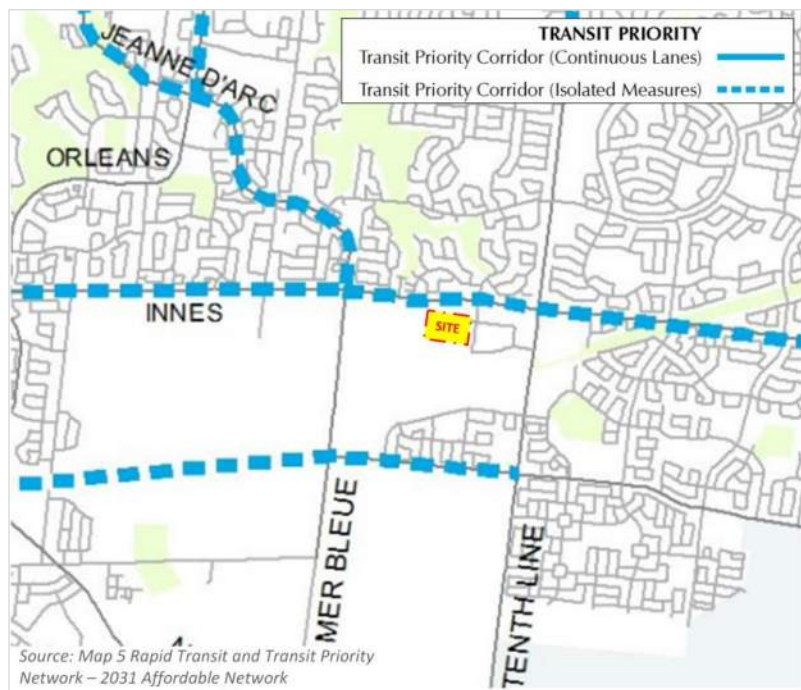


Figure 10: Map 5 Rapid Transit and Transit Priority Network – 2031 Affordable Network

2.1.10.4 Future Background Developments

The City of Ottawa's Development Applications website was reviewed to identify adjacent proposed developments within the study area. Several developments are planned southwest of the proposed site along the southern extension of Noëlla Leclair Way, the future Lady Pellatt Street the future Vanguard Drive extension. The three proposed developments identified near the study area are:

- **Extendicare Long-Term Care Facility** A four-story, 256-bed long-term care home is proposed at 1001 Noëlla Leclair Way and 4200 Innes Road. The facility will include 110 parking spaces and access points from the extensions of Noëlla Leclair Way and Vanguard Drive.
- **Ironclad Developments Multi-Family Housing** A proposal for two six-story buildings totaling 157 dwelling units is planned for 1001 Rue Noëlla Leclair. This development is part of a master-planned subdivision by Innes Shopping Centres Limited and will offer a mix of bachelor, one-bedroom, two-bedroom, and three-bedroom units.
- **Trinity Crossing Commercial Space** Located at 1070 Noëlla Leclair Way, Trinity Crossing offers commercial spaces for lease within the growing Orleans community. The area anticipates approximately 1,358 new homes, contributing to increased commercial activity.

2.3 Study Area and Time Periods

2.3.1 Study Area

The proposed study area for this proposed development includes the following intersections:

- Innes Road & Jeanne d’Arc Boulevard/Mer-Bleue Road
- Innes Road & Trinity Crossing Mall Access
- Innes Road & the east Drive-In/Out access of Swiss Chalet
- Innes Road & Lanthier Drive/Prestwick Drive
- Innes Road & Tenth Line Road

The study area has been expanded from its initial scope to include the major intersections of Innes Road at Jeanne d’Arc Boulevard/Mer Bleue Road and of Innes Road at Tenth Line Road. These two intersections, located within approximately 1 km of the site, are expected to experience potential traffic impacts from the proposed development at 4280 Innes Road. This ensures a comprehensive assessment of traffic operations, capacity, and potential mitigation measures in accordance with the City’s requirements.

2.3.2 Time Periods

It should be noted that ‘Chick-fil-A’ restaurant opens between 10:00 AM and 10:30 AM, which is why the traffic analysis focuses solely on the afternoon peak hour. Given the higher traffic volumes typically observed during this period, the weekday afternoon and weekend afternoon peak hour time periods were selected to represent the “worst-case” scenario in terms of weekday traffic conditions.

2.3.3 Horizon Years

A full buildout of the proposed development is envisioned by 2025. The scope of the transportation assessment includes the following horizon years:

- 2024 Existing Conditions
- 2025 Future Background Conditions
- 2025 Total Future Conditions (build-out year)
- 2030 Future Background Conditions
- 2030 Total Future Conditions (5 years after the build-out year)

2.4 Exemption Review

The Exemptions Review table from the City of Ottawa Transportation Impact Assessment Guidelines is summarized below in **Table 4**.

Table 4: Exemptions Review

Module	Element	Exemption Considerations	Exempt? (Yes/No)
4.1 Development Design	4.1.1 Design for Sustainable Modes	All	No
	4.1.2 Circulation and Access	All site plan and zoning by-law applications	No
	4.1.3 New Street Networks	Only required for plans for subdivision	Yes
4.2 Parking	4.2.1 Parking Supply	All site plan and zoning by-law applications	No
	4.2.2 Spillover Parking	Section removed from TIA	Yes
4.3 Boundary Street Design	N/A	All	No
4.5 Transportation Demand Management	4.5.1 Context for TDM	All	No
	4.5.2 Need and Opportunity	All	No
	4.5.3 TDM Program	All	No
4.6 Neighbourhood Traffic Calming	N/A	If the development meets all of the following criteria along the route(s) site generated traffic is expected to utilize between an arterial road and the site's access: 1. Access to Collector or Local; 2. "Significant sensitive land use presence" exists, where there is at least two of the following adjacent to the subject street segment: o School (within 250m walking distance); o Park; o Retirement / Older Adult Facility (i.e. long-term care and retirement homes); o Licenced Child Care Centre; o Community Centre; or o 50%, or greater, of adjacent property along the route(s) is occupied by residential lands and a minimum of 10 occupied residential units are present on the route; 3. Application is for Zoning By-Law Amendment or Draft Plan of Subdivision; 4. At least 75 site-generated auto trips; 5. Site Trip Infiltration is expected. Site traffic will increase peak hour vehicle volumes along the route by 50% or more.	Yes
4.7 Transit	4.7.1 Transit Route Capacity	> 75 site transit trips	Yes
	4.7.2 Transit Priority Requirements	> 75 site auto trips	Yes
4.8 Network Concept	N/A	When proposed development generates > 200 person-trips during the peak hour in excess of the equivalent volume permitted by established zoning.	Yes
4.9 Intersection Design	4.9.1 Intersection Controls (including site accesses)	> 75 site auto trips	No
	4.9.2 Intersection Design	> 75 site auto trips	No

3 FORECASTING

3.1 Development-generated Travel Demand

3.1.1 Trip Generation and Mode Shares

3.1.1.1 Base Trip Generation Rate

The Institute of Transportation Engineers (ITE) 11th Edition Trip Generation rates method was selected to support the source for the base trip generation rate. The proposed development is estimated to generate 163 vehicle trips during the Weekday PM peak hour (including 85 inbound trips and 78 outbound trips) and 273 vehicle trips during the Weekend PM peak hour (including 139 inbound trips and 134 outbound trips). The estimated vehicle trips generated by the proposed restaurant are summarized in **Table 5**.

Table 5: Summary of Vehicle Trip Generation

Land Use	Size	Independent Variable	Weekday PM Peak Hour			Weekend PM Peak Hour		
			In	Out	Total	In	Out	Total
Fast-food restaurant with Drive-Through Window	4948.9 ft ² GFA	1,000 ft ² GFA	85	78	163	139	134	273

3.1.1.2 Person-Trips and Mode Shares

The ITE Trip Generation Manual suggests a vehicle occupancy factor of 1.28 person-trips per vehicle trip (average auto occupancy) to convert vehicle trips to person trips. As a result, the proposed development is estimated to generate 209 person-trips during the Weekday PM peak hour (including 109 inbound trips and 100 outbound trips) and 349 person-trips during the Weekend PM peak hour (including 178 inbound trips and 172 outbound trips).

Analyzing the mode shares outlined in the 2020 TRANS Trip Generation Manual Summary Report for the subject district, which are based on data from the latest National Capital Region Origin-Destination (OD) Survey, the typical mode share distribution for land uses in Orleans is presented in **Table 6**.

Table 6: 2020 TRANS Mode Shares - Orleans Area

Travel Mode	Period
	PM Peak Hour
Auto-Driver	71%
Auto-Passenger	20%
Transit	2%
Cycling	1%
Walking	5%
Total	99%

Table 7: Proposed Development Mode Shares

Travel Mode	Period
	PM Peak Hour
Auto-Driver	70%
Auto-Passenger	18%
Transit	5%
Cycling	1%
Walking	5%
Total	99%

2020 TRANS data highlight a strong dependence on automobiles for commuting in Orleans, with minimal use of alternative modes. Although the proposed development is not within walking distance of any existing O-Train Light Rail Transit, the area is serviced by several bus routes including routes 25,37,39,138 and 302, with the nearest bus stop. These bus routes provide connections to various parts of the city, a higher transit mode is considered achievable at this location. The proposed modified mode share targets are summarized in **Table 7**.

Applying the mode share targets for an LRT area along with the corresponding person trip rates, the projected person trips by mode have been estimated. **Table 8** provides a summary of trip generation by mode and peak hour.

Table 8: Trip Generation by Mode

Travel Mode	Modal Share		Weekday PM Peak			Weekend PM Peak		
			In	Out	Total	In	Out	Total
	Total Person Trips		109	100	209	178	172	349
Fast-food restaurant with Drive-Through Window	Auto Driver	70%	77	70	147	124	121	245
	Auto Passenger	18%	20	18	38	32	31	63
	Transit	5%	5	5	11	9	9	18
	Cycling	1%	1	1	2	2	2	4
	Walking	5%	5	5	11	9	8	18

As illustrated above, the proposed development is expected to generate 147 two-way vehicle trips during the weekday PM peak hour and 245 trips during the weekend PM peak hour.

3.1.2 Trip Distribution and Trip Assignment

Innes Road is a major arterial connecting residential areas, commercial centers, and employment zones in Ottawa's east end, likely resulting in significant traffic in the east-west direction. Site trips for the proposed development were distributed to/from the site and the boundary roadways based on the existing traffic patterns and the characteristics of the surrounding road network configuration. The assumed trip orientation and distribution percentages for the area near 4280 Innes Road are reasonable based on the surrounding characteristics and land uses.

The weekday and weekend PM peak hour site-generated traffic distribution is shown in the cardinal directions in **Figure 11**.

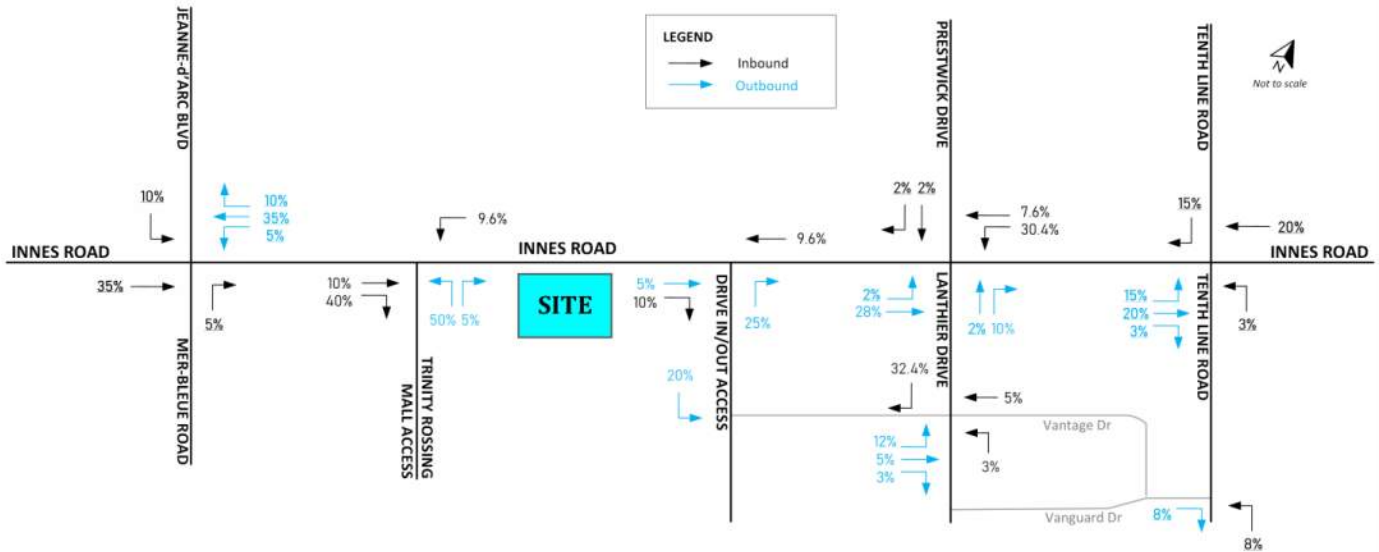


Figure 11: Development-Generated Trips Distribution

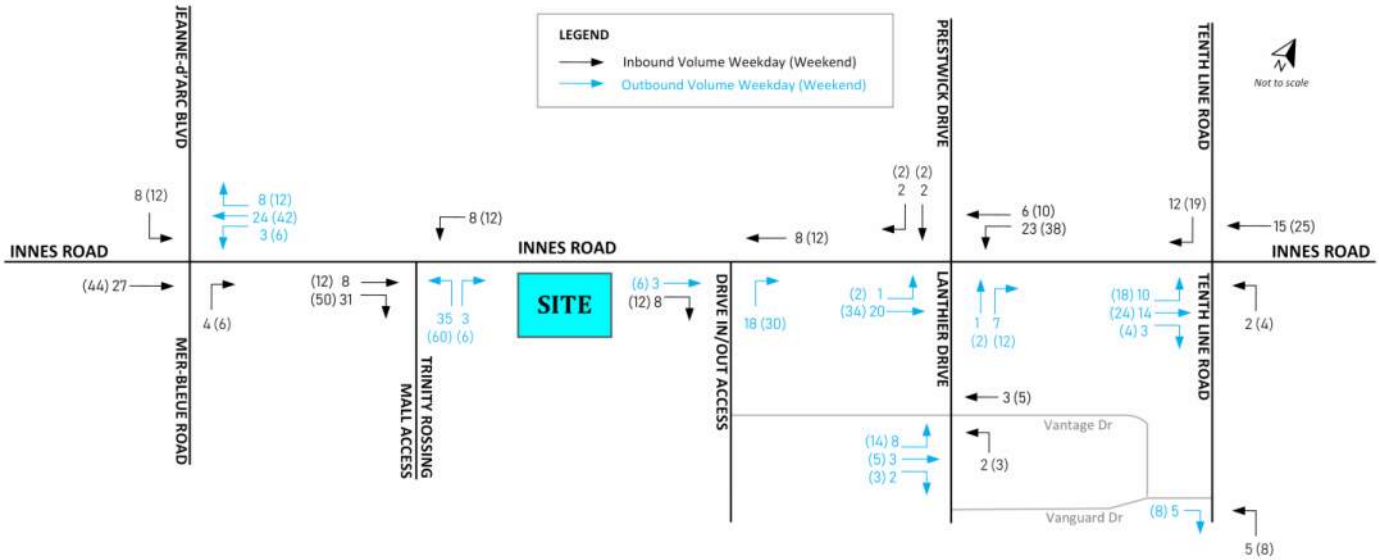


Figure 12: Proposed Development-Generated Trips Volumes

3.2 Background Network Travel Demands

3.2.1 Transportation Network Plans

Upon reviewing the City of Ottawa's 2013 Transportation Master Plan (TMP), specifically, Map 11 outlining the 2031 Affordable Road Network, there is an indication of a planned road widening for Tenth Line Road scheduled between 2020 and 2025. As of January 2025, there are no publicly available plans indicating a widening project for Innes Road between Mer-Bleue Road and Tenth Line Road. The City of Ottawa's previous transportation planning documents, including the 2013 Transportation Master Plan (TMP), do not specify any scheduled expansions for this particular segment.

The City of Ottawa has been planning to extend Vanguard Drive to enhance access within the South Orleans Business Park. This extension connects Vanguard Drive from its current end at Lanthier Drive to Mer Bleue Road, which will improve access to adjacent parcels and stimulate development in the area.

As per the City's Development Review staff, there is no timeline for Vanguard Drive, and it will be constructed piecemeal as development occurs.

3.2.2 Background and Total Traffic Volumes

The rate of growth of background traffic was established as 1.75% by comparing the 2022 and 2046 TRANS Regional models within the study area. An annual increase of 1.75% was added to the background growth traffic to account for potential future growth along the corridor and toward the suburbs. **Figure 13** and **Figure 14** illustrate the background traffic volumes within the study area for 2025 and 2030, respectively.

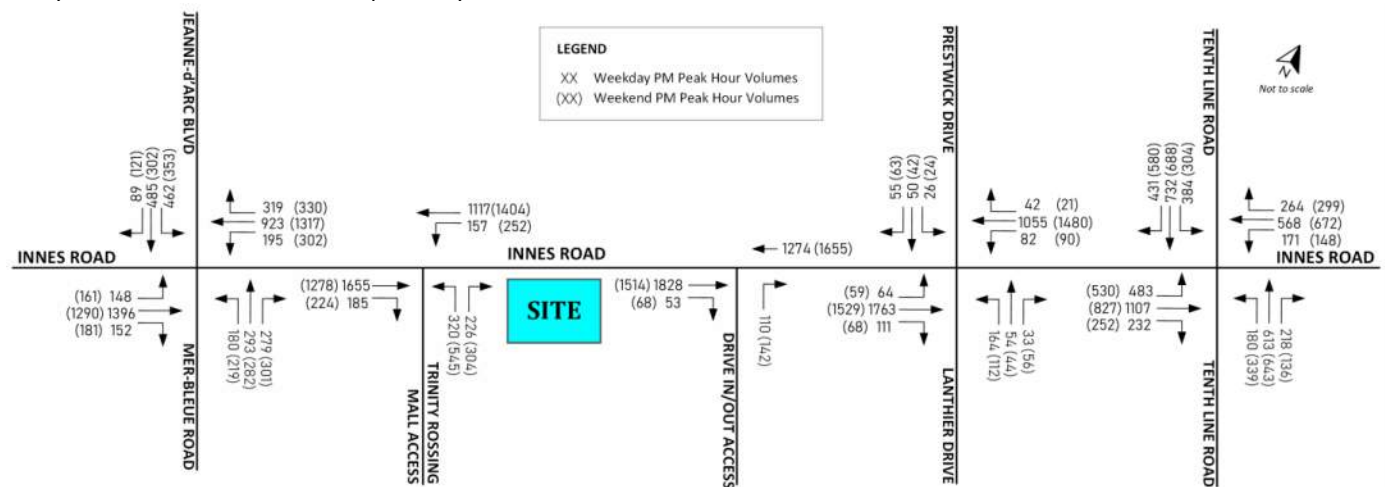


Figure 13: 2025 Background Traffic Volumes

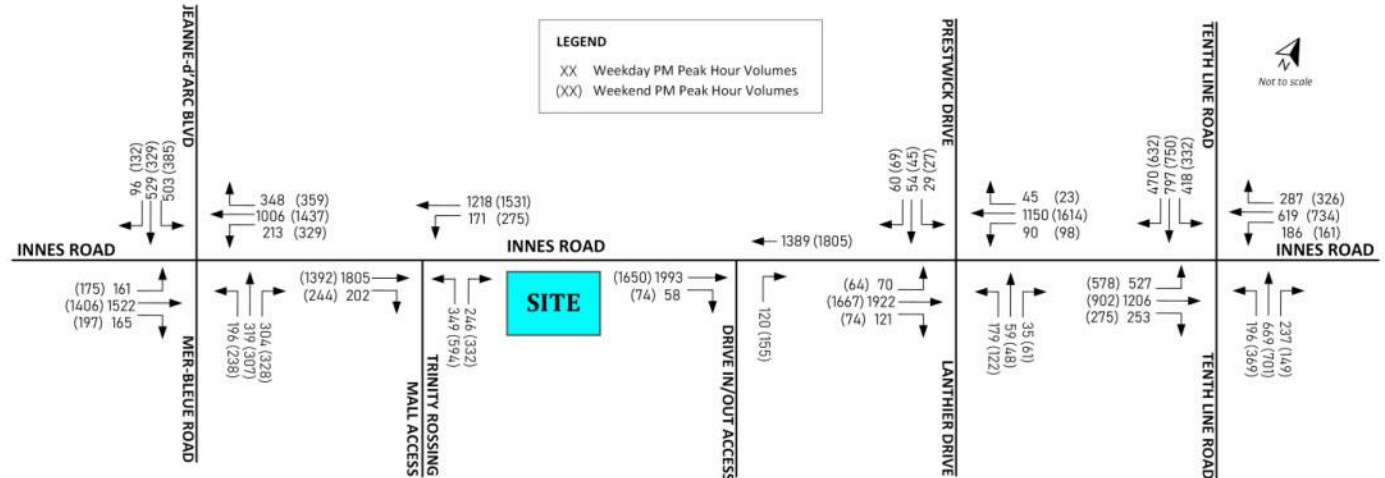
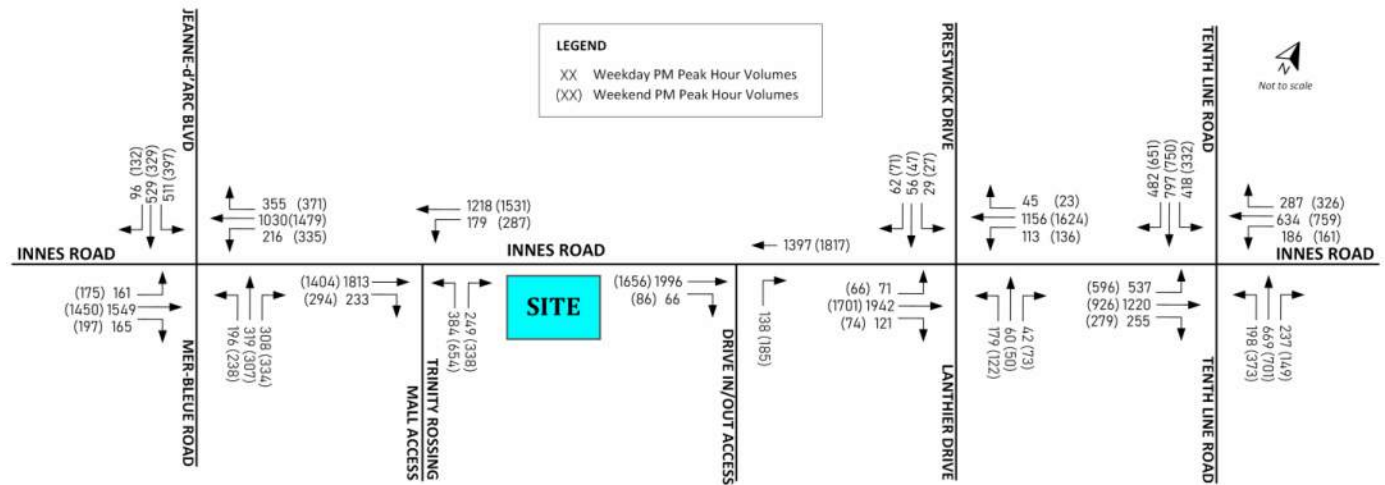
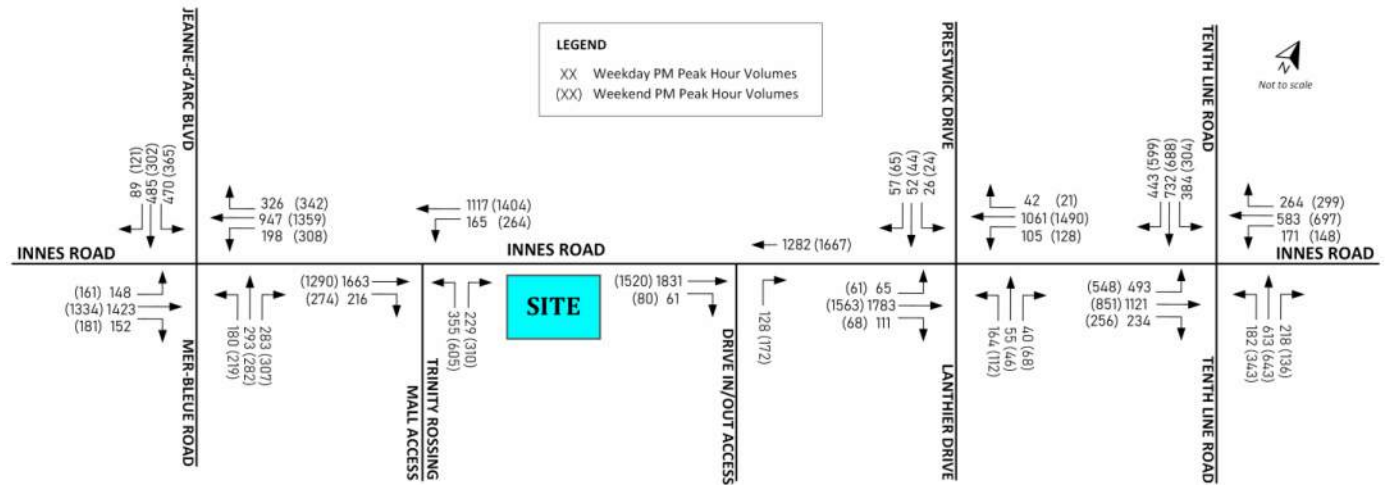


Figure 14: 2030 Background Traffic Volumes

The total traffic 2025 and 2030 volumes are illustrated in **Figure 15** and **Figure 16**, respectively.



3.2.3 Other Adjacent Developments

Refer to Section 2.1.10.4 for the future transportation network plans within the study area. It should be noted that the site trip generation from other adjacent developments was not incorporated into the existing traffic volumes due to insufficient data availability for these developments at the time of analysis. Specifically, detailed information regarding the scale, phasing, and trip generation characteristics of these adjacent projects such as proposed land uses, development intensities, and access points are not available, precluding the inclusion in the baseline traffic assessment. As a result, the future background traffic volumes were determined relying on an annual growth rate derived from the TRANS regional transportation model, which was provided by the city staff.

3.3 Demand Rationalization

The existing traffic analysis for 2024 (refer to Section 2.1.8), combined with the future background traffic impact projections for 2025 and 2030 (refer to Section 3.2.2), identifies a capacity constraint for east-west traffic at the signalized intersections along Innes Road within the study area. This constraint is projected to persist into future horizon years, even without the proposed development. Innes Road's role as a major route contributes to heavy traffic volumes during weekday peak hours. To address these challenges, efforts such as optimizing traffic signals for peak directional flow and promoting alternative modes of transportation should be considered. A long-term solution will likely require a combination of infrastructure improvements and enhanced transit options. Possible solutions to alleviate the capacity constraints include:

- Encouraging carpooling. Introduce incentives to reduce single-occupancy vehicles.
- Expand transit networks, increase frequency and reliability, and make public transit more affordable to encourage ridership.
- Promote walking and cycling as viable alternatives by developing safe and extensive bike lanes and pedestrian pathways.
- Collaborate with businesses and schools to adjust start times and reduce peak-hour congestion.
- Encourage flexible remote work policies to minimize peak-period travel demands.

4 ANALYSIS

4.1 Development Design

4.1.1 Design for Sustainable Modes

4.1.1.1 Location of Transit Facilities

The transit facilities near 4280 Innes Road provide convenient access for residents and visitors, with OC Transpo offering reliable services. As previously described in *Section 2.1.6*, Innes Road is a Transit Priority Corridor and Route 25 is part of OC Transpo's Frequent Transit Network.

Route 25 is a local bus route in Ottawa, serving the eastern corridor from Millennium Station in Orléans to Wateridge Village, with some peak-period trips extending to La Cité Collégiale. On weekdays, Route 25 runs every 15–20 minutes during morning and afternoon peak hours, 20–30 minutes midday, and 30–40 minutes in the evening, while weekend service operates every 20–30 minutes daytime and 30–60 minutes early morning or late evening. The route supports local connectivity and sustainable travel along the busy Innes Road corridor.

Route 138 is a local bus route in Ottawa, operating between Place d'Orléans Station and Vantage Drive in Orléans, serving the stop at 4280 Innes Road along its 47-stop path. On weekdays, it runs every 15–20 minutes during peak hours (6:00 AM–9:00 AM, 3:00 PM–6:00 PM), 20–30 minutes midday, and 30–40 minutes in the evening. Weekend service operates every 20–30 minutes during the day and 30–60 minutes early morning or late evening. The route covers Innes Road in mixed traffic, with a total trip time of about 35 minutes from Vantage / Ad. 303 to Orleans 2C.

4.1.1.2 Pedestrian/Cycling Routes and Facilities

The site plan incorporates several features to support active transportation and enhance accessibility for pedestrians and cyclists. Dedicated pedestrian pathways are placed to connect key areas, including the parking lot, building entrances, and drive-thru zones. These pathways are complemented by painted pedestrian crossings and tactile indicators, ensuring safe and accessible movement across high-traffic areas for all users, including individuals with disabilities.

The following **Figure 17** highlights key active transportation facilities. Areas highlighted in green correspond to all accessible concrete pads for pedestrian use.

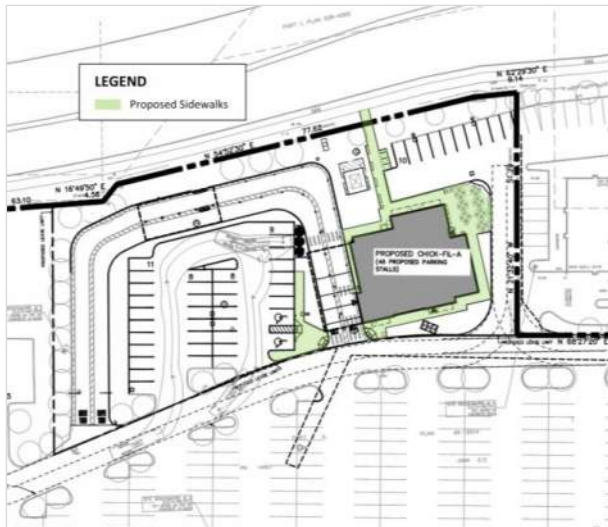


Figure 17: Overall Site Plan

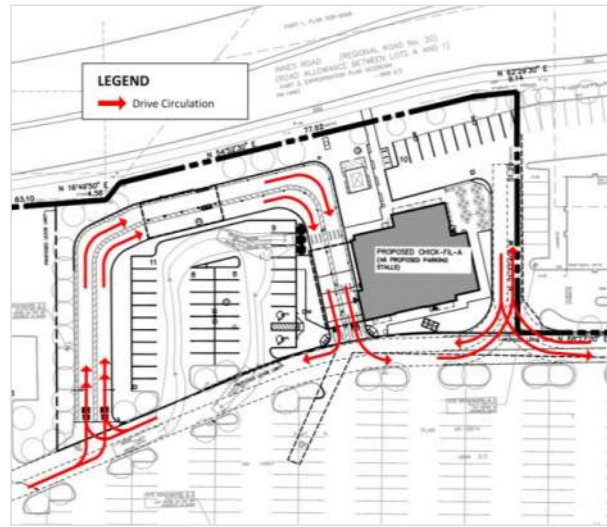


Figure 18: Internal Driveway Circulation and Drive-Thru Access Locations

4.1.1.3 Bicycle Parking

Six bike racks are proposed on-site, positioned on a stable concrete pad to enhance convenience and promote cycling as a sustainable mode of transportation. The design also features landscaped buffer zones along pathways, fostering a welcoming environment for pedestrians and cyclists while minimizing conflicts with vehicular traffic. Curb depressions and ramps are integrated to ensure barrier-free access throughout the site, particularly near designated accessible parking spaces close to the main entrance. These features align with the principles of universal design, promoting safety and ease of access for all users.

The layout of the site supports the functional roles and connectivity of the surrounding street network. Features like dedicated drive-thru lanes, clearly marked vehicle circulation routes, and safe pedestrian crossings ensure efficient and organized movement while maintaining the intended functions of nearby local streets. The proposed development design also provides safe and efficient access for municipal services, including waste collection, snow storage, and utility placements, ensuring smooth operations. Overall, the site plan reflects careful consideration of urban design and transportation principles.

4.1.2 Circulation and Access

Figure 18 illustrates the site layout, highlighting internal driveway circulation designed to optimize vehicle flow and minimize conflicts among vehicles, pedestrians, and cyclists. Clear lane markings and directional arrows guide vehicles safely through the site, promoting efficient movement. Multiple access points to the drive-thru are strategically located near the main site entrance, enhancing convenience and traffic distribution.

Safety is a key consideration, with features such as bollards and painted lines separating drive-thru lanes from pedestrian walkways and parking areas. A dedicated bypass lane allows vehicles to exit the drive-thru without disrupting traffic flow, further improving operational efficiency.

The proposed development includes a dual-lane drive-thru designed to support high-volume service and smooth vehicle circulation. This configuration enables simultaneous ordering, reducing queuing time and increasing throughput, with a stacking capacity of up to 35 vehicles from entry to pick-up. Vehicles enter the drive-thru from the internal circulation route, proceed to designated ordering points, and then merge into a single lane for pick-up.

Internal driveways provide direct, well-marked access to the main parking lot, drive-thru lanes, and building entrances. This capacity exceeds the required minimum, significantly reducing the risk of vehicle spillover into parking areas or adjacent roadways.

An AutoTURN analysis confirms that standard passenger vehicles can safely navigate the drive-thru path without conflicts involving curbs, parking zones, or pedestrian areas.

Details of the drive-thru operations are provided in **Appendix F**.

4.2 Parking

4.2.1 Parking Supply

Parking, Queueing and Loading Provisions for the City of Ottawa By-Laws, the site is located in Area C based on Schedule 1A and is within Rapid Transit Stations within Schedule 2A. **Table 9** summarizes the vehicle parking minimum allowed within the parking by-law and the quantities proposed.

Table 9: Minimum Vehicle Parking Requirement Per Zoning By-Law

Land Use	Rate	Units/GFA	Required	Proposed
Restaurant – Fast Food (By-law 2011-124)	10 per 100 m ² of gross floor area	461.94 m ²	46	46

Table 10 summarizes the bicycle parking requirements as per City of Ottawa Zoning By-Law-Part 4, sections 100-114.

Table 10: Minimum Bicycle Parking Requirement Per Zoning By-Law

Land Use	Rate	Units/GFA	Required	Proposed
(e) Restaurant	1 per 250 m ² of gross floor area	461.94 m ²	2	6

As the proposed supply of on-site parking meets the By-law requirement, no further review of vehicular parking is required. A total of 6 bicycle parking spaces are proposed, meeting the minimum Zoning By-law 2008-250 Consolidation parking requirements for all land uses in the Site Plan.

4.3 Boundary Street Design

4.3.1 Existing and Future Conditions

The City of Ottawa has adopted a Complete Streets approach to its transportation planning, aiming to ensure safety, comfort, and mobility for all users, regardless of age, ability, or mode of transportation. Innes Road is the only boundary street for the proposed development. While specific information about Innes Road's inclusion in the Complete Streets initiative is unavailable, the City has undertaken projects on adjacent corridors, such as the Blair Road Transit Priority and High Occupancy Vehicle Lanes project, which incorporates complete street elements. Given Innes Road's significance as a major arterial route in Ottawa, it's plausible that plans may consider integrating complete street principles to enhance accessibility and safety for all users.

Table 11 summarizes the Multimodal Level of Service (MMLOS) analysis for the subject road segments adjacent to the site, with a detailed analysis provided in **Appendix G**.

Table 11: MMLOS – Boundary Street Segment

Road Segment	Pedestrian		Bicycle		Transit		Truck	
	PLOS	Target	BLOS	Target	TLOS	Target	TkLOS	Target
Innes Road	E	C	C	B	D	D	A	N/A

Pedestrian Level of Service (PLOS) Innes Road does not meet existing PLOS targets. For the targets to be met, Innes Road would require its posted speed to be reduced to at least 50 km/h and have a speed test to confirm compliance.

Bicycle Level of Service (BLOS) Innes Road did not meet the BLOS targets given the fast-operating speeds. If the speeds were reduced to 50 km/h posted speed, then the BLOS would meet the target.

Transit Level of Service (TLOS) Innes Road operates as mixed traffic, with buses sharing lanes with other vehicles. The road is also part of the City of Ottawa's ongoing efforts to enhance active transportation and transit infrastructure. The transit TLOS targets were met.

Truck Level of Service (TkLOS) Innes Road is designated as a truck route in the City of Ottawa. This designation allows heavy vehicles to use Innes Road for transportation purposes, facilitating the movement of goods and services through the area. The truck TkLOS targets were met.

4.4 Transportation Demand Management

4.4.1 Context for TDM

Based on the type of development, it is assumed that most trips generated by the proposed site will be customers visiting the mall and restaurant during mealtimes, with peak activity anticipated during lunch and dinner hours. Additional trips may include a combination of dine-in, drive-thru, and delivery-related traffic, particularly during the midday and evening peak periods. *Section 3.1* describes how many trips are anticipated per travel mode and anticipates the likely locations they will travel to and from.

The site is not located within 600 m of a rapid transit station; however, it is situated along Innes Road, a transit priority corridor with isolated measures such as bus priority signals and queue jump lanes to improve transit efficiency. The City of Ottawa has ongoing initiatives to enhance transit service along Innes Road, reflecting its importance as a key transportation route in the Orleans area. Future improvements may include additional measures to support public transit and active transportation infrastructure in the vicinity.

4.4.2 Need and Opportunity

Since the development is situated within a transit-priority corridor, it is highly encouraged to implement strategies that promote sustainable transportation. These measures may include enhancing access to active modes such as walking and cycling, integrating seamless connections to transit facilities, providing adequate bike storage, and designing pedestrian-friendly pathways to support and increase active mode shares while aligning with the corridor's long-term transit vision.

4.4.3 TDM Program

Below is the list of measures selected from the City of Ottawa's TDM Measures Checklist, Version 1.0 (June 30, 2017).

- 1.1.1 Designate an internal coordinator or contract with an external coordinator.
- 2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances.
- 3.1.1 Display relevant transit schedules and route maps at entrances.
- 3.1.2 Provide online links to OC Transpo and STO information.
- 3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit.
- 4.1.1. Provide a dedicated ride-matching portal at OttawaRideMatch.com.
- 7.1.1 Provide a multimodal travel option information package to new/relocating employees and students.

The TDM infrastructure checklist and TDM Measures are reviewed and attached in the **Appendix H**.

4.5 Neighborhood Traffic Calming

The proposed development will not require the consideration of any additional Neighbourhood Traffic Calming.

4.6 Transit

4.6.1 Route Capacity

Route 25 has average headways of approximately 30 minutes during the day. During peak hours, OC Transpo's Route 25 operates with headways of approximately 6 to 30 minutes.

4.6.2 Transit Priority

There are no future BRT bus lanes planned on Innes Road; the corridor is expected to benefit from various transit priority measures to improve bus service efficiency.

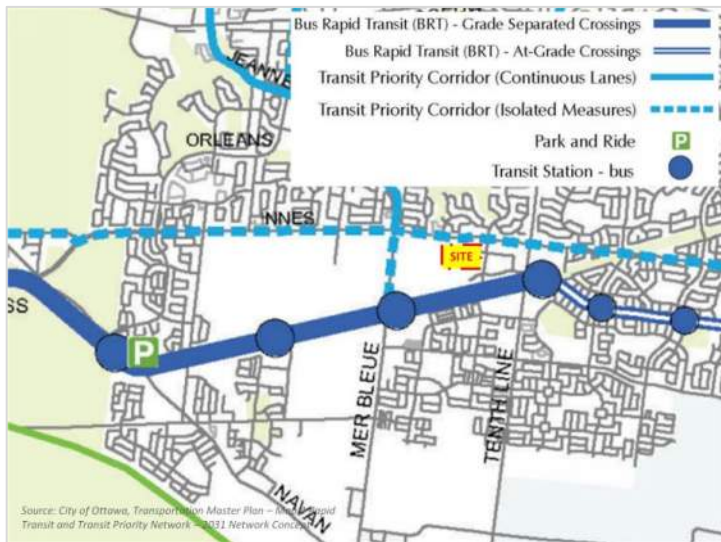


Figure 19: Transit and Transit Priority Network Map 2031, City of Ottawa

The additional peak-hour vehicle trips generated by the proposed development are not expected to significantly impact the overall performance of the adjacent study area network, as the incremental increase in traffic volume remains within the existing capacity of most unsignalized intersections and roadway segments. However, signalized intersections within the study area continue to exhibit an unacceptable Transit Level of Service (LOS), particularly affecting transit operations at the eastbound and westbound approaches of two critical intersections: Innes Road & Jeanne d'Arc Boulevard/Mer-Bleue Road and Innes Road & Tenth Line Road. The eastbound and westbound approaches at both intersections are particularly impacted, as heavy through movements conflict with transit vehicles attempting to navigate the intersections, exacerbating queuing and reducing the efficiency of transit operations.

The proposed development increases transit delays along Innes Road, prompting recommendations from the City of Ottawa's toolkit (TDM Guidelines and MMLOS framework) to improve bus efficiency. Queue jump lanes at key intersections would help buses bypass traffic, while relocating bus stops from congested areas would reduce delays, supporting the target Transit Level of Service (TLOS).

4.7 Review of Network Concept

The site is currently zoned as General Mixed-Use (GM), specifically Sub-zone GM13 which allows general mixed-use. *Section 3.1.1.2* of this report indicates that the site, upon its full build-out and occupancy, will produce between 209 and 349 person-trips per peak hour of travel demand, without considering any pass-by, internal or diverted trips. Since 200 peak hour person trips or more above the equivalent volume permitted by established zoning is the trigger according to the TIA Guidelines, the remainder of this step can be exempt.

It is noted that the City of Ottawa is presently reviewing and approving the New Transportation Master Plan and Capital Infrastructure Plan, which may propose changes to the network concepts or new network concepts.

4.8 Intersection Design

The following sub-sections provide total traffic analysis (including a combination of background traffic and development-generated traffic), including the multi-modal level of service analysis and vehicle level of service analysis considered.

4.8.1 Intersection Control

The two study area intersections, Innes Road/Trinity Crossing Mall Access and Innes Road/Prestwick Drive/Lanthier Drive, will continue to operate as signalized intersections. Given the heavy eastbound and westbound traffic volumes at both intersections during peak travel hours, roundabouts are not being considered as a viable option.

Both drive-thru access points are proposed to be stop-controlled to ensure safe site access and maintain free-flow traffic on the mall roads. Section 4.9.2 will evaluate the operational capacity of the proposed access intersections and determine if alternate intersection controls are recommended.

4.8.2 Intersection Design

4.8.2.1 Existing Intersection MMLOS Analysis

Table 12 summarizes the review of the signalized study area intersections using the Multi-Modal Level of Service (MMLOS) guidelines produced by IBI Group in October 2015, with detailed MMLOS analysis provided in **Appendix I**.

Table 12: Multi-Modal Level of Service - Intersections

Intersection	Pedestrian		Bicycle		Transit		Truck		Auto Vehicle	
	LOS	Target	LOS	Target	LOS	Target	LOS	Target	LOS	Target
Innes Road & Jeannes d’ArcBoulevard/Mer-Bleue Road	F	C	F	B	F	C	A	D	E	D
Innes Road & Trinity Crossing Mall Access	E	C	F	B	F	C	E	D	C	D
Innes Road & Prestwick Drive/Lanthier Drive	F	C	F	B	D	C	E	D	C	D
Innes Road & Tenth Line Road	F	C	F	B	F	C	A	D	E	D

Pedestrian Level of Service (PLOS) For all signalized intersections within the study area that feature pocket bike lanes, pedestrians are required to cross the equivalent of at least five lanes or more (except at the north leg of the Innes Road/Prestwick Drive/Lanthier Drive intersection). This extended crossing distance significantly increases pedestrian clearance time. As a result, the PLOS (Pedestrian Level of Service) for an arterial main street fails to meet the desired target. Potential crosswalk treatments—such as installing raised crosswalks or upgrading to smart channelized designs—could offer some improvements to the PLOS. However, despite these options, no feasible solution appears capable of enhancing the PLOS sufficiently to reach the target of PLOS 'C'.

Bicycle Level of Service (BLOS) The bicycle LOS (Level of Service) target was not met at any of the signalized intersections in the study area due to high operating speeds on Innes Road.

Transit Level of Service (TLOS) To achieve the transit LOS (Level of Service) targets, a maximum transit delay of 30 seconds or less for bus movements must be met. However, all movements involving buses do not meet this criterion, and the transit LOS target was not achieved.

Truck Level of Service (TkLOS) The truck LOS (Level of Service) target was met for the Innes Road/Jeanne d’Arc Boulevard/Mer-Bleue Road intersection and the Tenth Line Road intersection, as they provide large effective corner radii and two receiving lanes. However, the intersections of Innes Road/Trinity Crossing Mall Access and Prestwick Drive/Lanthier Drive were not found to meet their targets due to a lack of sufficient receiving lanes on departure from the intersections.

Auto Level of Service (ALOS) The auto vehicle LOS (Level of Service) target was not met for the Innes Road/Jeanne d’Arc Boulevard/Mer-Bleue Road intersection or the Tenth Line Road intersection, as the main street demand during peak hours is excessive. However, the intersections of Innes Road/Trinity Crossing Mall Access and Prestwick Drive/Lanthier Drive were found to meet their targets.

4.8.2.2 Future Background Traffic Operation Analysis

The signal timing splits have been fully optimized in Synchro to achieve the best possible performance, minimizing delays and maximizing traffic flow efficiency based on the given parameters and constraints for all intersections within the study area. In this analysis, the cycle length for signalized intersections was established at 130 seconds to optimize traffic flow and accommodate the operational characteristics of the study area. The 2025 and 2030 background traffic condition analyses, with detailed results provided in **Appendix D** and summarized in **Tables 13** and **Table 14**, respectively.

Table 13: 2025 Background Traffic Operation Summary

Intersection	Traffic Control	Key Movements	Weekday PM Peak Hour				Weekend PM Peak Hour			
			LOS	Delay (s)	v/c ratio	95 th Queue (m)	LOS	Delay (s)	v/c ratio	95 th Queue (m)
Innes Road & Jeannes d'Arc Boulevard / Mer-Bleue Road		EB-L	A	23.2	0.55	28.0	D	66.8	0.86	#62.4
		EB-T	F	68.4	1.02	#223.0	F	68.8	1.01	#207.6
		EB-R	A	2.3	0.21	7.0	A	4.7	0.27	13.1
		WB-L	E	81.3	0.92	#81.3	E	75.7	0.97	m#114.2
		WB-T	B	22.9	0.66	81.9	D	34.5	0.88	169.5
		WB-R	A	4.2	0.40	14.1	A	4.2	0.39	m13.6
		NB-L	C	76.8	0.73	#35.6	C	75.5	0.76	#41.6
		NB-TR	D	53.5	0.88	#74.3	D	51.8	0.88	#71.1
		SB-L	F	106.3	1.04	#90.8	F	111.1	1.02	#73.5
Innes Road & Trinity Crossing Mall Access		SB-TR	C	53.1	0.77	83.2	B	51.0	0.70	60.5
		Overall	D	53.2	-	-	D	53.8	-	-
		EB-T	D	21.1	0.81	m112.9	C	10.8	0.73	m85.5
		EB-R	A	9.3	0.20	m10.8	A	1.1	0.27	m1.2
		WB-L	B	35.5	0.67	#48.4	C	49.6	0.78	65.8
Innes Road & Drive In/Out Access		WB-T	A	14.8	0.46	96.0	B	7.7	0.63	65.4
		NB-L	B	60.1	0.68	48.3	D	62.2	0.84	81.3
		NB-R	B	28.1	0.67	39.6	A	10.9	0.58	27.1
		Overall	C	22.7	-	-	B	18.6	-	-
		EB-T	A	0.0	0.54	0.0	A	0.0	0.45	0.0
Innes Road & Prestwick Drive/Lanthier Drive		EB-R	A	0.0	0.03	0.0	A	0.0	0.04	0.0
		WB-T	A	0.0	0.37	0.0	A	0.0	0.49	0.0
		NB-R	A	11.7	0.17	4.3	A	10.8	0.19	4.8
		Overall	A	0.4	-	-	A	0.5	-	-
		EB-L	A	11.0	0.25	m8.5	A	14.9	0.42	m4.8
Innes Road & Tenth Line Road		EB-T	D	30.5	0.90	248.8	C	10.7	0.80	49.2
		EB-R	A	3.8	0.13	m6.5	A	0.4	0.08	m0.0
		WB-L	A	32.7	0.60	m14.2	A	15.6	0.50	m2.0
		WB-TR	A	11.7	0.49	101.0	B	8.5	0.67	m112.9
		NB-L	B	56.6	0.61	57.8	A	49.0	0.42	40.2
		NB-TR	A	32.3	0.22	25.9	A	25.4	0.25	24.8
		SB-L	A	41.2	0.09	12.2	A	41.2	0.09	11.5
		SB-TR	A	28.2	0.27	27.7	A	23.7	0.27	24.7
		Overall	C	24.7	-	-	B	12.0	-	-
Innes Road & Tenth Line Road		EB-L	D	48.4	0.81	m55.0	E	55.6	0.91	#89.3
		EB-T	E	35.4	0.93	m#167.9	C	29.8	0.75	125.1
		EB-R	A	9.2	0.36	m20.9	A	10.7	0.39	m32.6
		WB-L	E	103.4	0.91	#79.5	D	90.6	0.83	#65.8
		WB-T	A	44.1	0.60	82.3	C	52.7	0.78	100.5
		WB-R	A	9.5	0.45	26.6	A	9.7	0.51	27.6
		NB-L	C	77.3	0.74	#35.9	D	78.5	0.87	#63.1
		NB-T	D	65.0	0.88	#99.8	C	51.3	0.76	93.3
		NB-R	A	6.5	0.44	13.7	A	2.7	0.27	4.5
		SB-L	E	84.1	0.92	#73.3	D	73.3	0.81	#54.6
		SB-T	D	54.2	0.83	107.0	D	54.6	0.82	100.7
		SB-R	B	10.2	0.64	35.8	E	51.5	0.97	#140.0
		Overall	D	44.9	-	-	D	47.7	-	-

Notes: NB=Northbound SB=Southbound EB=Eastbound WB=Westbound, L=left R=right T=through, m = metered queue, # = volume for the 95th %ile cycle exceeds capacity

Overall, while some intersections maintain acceptable LOS, others, such as Innes Road & Jeanne d'Arc Boulevard/Mer-Bleue Road and Innes Road & Tenth Line Road, exhibit over-capacity conditions, leading to higher delays and queuing during peak hours. These findings highlight the need for targeted mitigation measures to improve traffic flow and maintain acceptable levels of service.

Table 14: 2030 Background Traffic Operation Summary

Intersection	Traffic Control	Key Movements	Weekday PM Peak Hour				Weekend PM Peak Hour			
			LOS	Delay (s)	v/c ratio	95 th Queue (m)	LOS	Delay (s)	v/c ratio	95 th Queue (m)
Innes Road & Jeannes d'Arc Boulevard / Mer-Bleue Road		EB-L	B	32.5	0.69	#34.0	E	93.4	0.97	#72.6
		EB-T	F	87.5	1.09	#251.1	F	88.9	1.08	#234.4
		EB-R	A	3.1	0.23	9.1	A	4.6	0.29	13.7
		WB-L	F	169.0	1.22	#96.5	F	136.7	1.18	m#126.0
		WB-T	C	24.8	0.73	93.5	E	46.1	0.97	#222.0
		WB-R	A	4.0	0.43	8.5	A	4.2	0.43	m13.3
		NB-L	C	75.9	0.75	#37.9	C	75.8	0.78	#45.2
		NB-TR	E	64.7	0.95	#93.6	E	61.5	0.94	#91.5
		SB-L	F	132.4	1.13	#102.0	F	135.6	1.12	#82.6
		SB-TR	D	55.8	0.82	92.6	C	52.9	0.74	67.1
		Overall	E	66.8	-	-	E	69.1	-	-
Innes Road & Trinity Crossing Mall Access		EB-T	E	23.8	0.92	m115.3	D	10.8	0.73	m85.5
		EB-R	A	9.4	0.23	m10.4	A	1.1	0.27	m1.2
		WB-L	C	42.7	0.72	#74.2	D	49.6	0.78	65.8
		WB-T	A	15.6	0.51	107.3	B	7.7	0.63	65.4
		NB-L	C	60.3	0.71	52.5	D	62.2	0.84	81.3
		NB-R	C	42.2	0.76	54.2	B	10.9	0.58	27.1
		Overall	C	25.7	-	-	C	18.6	-	-
Innes Road & Drive In/Out Access		EB-T	A	0.0	0.59	0.0	A	0.0	0.49	0.0
		EB-R	A	0.0	0.03	0.0	A	0.0	0.04	0.0
		WB-T	A	0.0	0.41	0.0	A	0.0	0.53	0.0
		NB-R	A	14.0	0.23	6.2	A	11.7	0.22	6.0
		Overall	A	0.5	-	-	A	0.5	-	-
Innes Road & Prestwick Drive/Lanthier Drive		EB-L	A	10.4	0.31	m8.4	A	14.9	0.42	m4.8
		EB-T	E	32.8	0.97	#282.9	D	10.7	0.80	49.2
		EB-R	A	3.1	0.14	m5.9	A	0.4	0.08	m0.0
		WB-L	C	46.7	0.75	m#18.5	B	15.6	0.50	m2.0
		WB-TR	A	10.7	0.54	105.4	C	8.5	0.67	m112.9
		NB-L	B	60.5	0.68	#63.9	A	49.0	0.42	40.2
		NB-TR	A	33.9	0.24	28.1	A	25.4	0.25	24.8
		SB-L	A	41.6	0.11	13.3	A	41.2	0.09	11.5
		SB-TR	A	29.3	0.30	29.8	A	23.7	0.27	24.7
		Overall	C	26.1	-	-	B	12.0	-	-
Innes Road & Tenth Line Road		EB-L	D	51.3	0.88	m60.1	E	65.9	0.98	m#92.8
		EB-T	F	53.4	1.03	m#174.6	D	30.0	0.84	m134.5
		EB-R	A	10.1	0.40	m22.8	A	9.3	0.43	m29.8
		WB-L	E	119.3	0.98	#88.4	E	108.5	0.93	#76.8
		WB-T	B	45.8	0.66	88.0	D	61.9	0.89	#118.9
		WB-R	A	11.4	0.49	32.5	A	13.2	0.58	37.4
		NB-L	D	94.7	0.88	#43.6	E	92.8	0.96	#72.9
		NB-T	E	72.4	0.94	#115.3	D	55.2	0.83	#104.5
		NB-R	A	8.2	0.47	18.7	A	3.6	0.29	7.7
		SB-L	F	100.9	1.00	#82.7	D	73.6	0.83	#59.3
		SB-T	D	56.1	0.87	#122.7	D	56.6	0.86	#113.4
		SB-R	C	17.3	0.72	61.8	F	72.1	1.04	#170.5
		Overall	D	53.2	-	-	D	54.4	-	-

Notes: NB=Northbound SB=Southbound EB=Eastbound WB=Westbound, L=left R=right T=through, m = metered queue, # = volume for the 95th %ile cycle exceeds capacity

Overall, the 2030 background traffic conditions show a decline in intersection performance compared to 2025, with several intersections, such as Innes Road & Jeanne d'Arc Boulevard/Mer-Bleue Road and Innes Road & Tenth Line Road, operating at LOS D or worse during peak hours. Increased delays and queuing underscore the need for mitigation measures to address over-capacity issues and maintain acceptable levels of service.

4.8.2.3 Future Total Traffic Operation Analysis

The signal timing splits have been fully optimized in Synchro to achieve the best possible performance, minimizing delays and maximizing traffic flow efficiency based on the given parameters and constraints for all intersections within the study area. In this analysis, the cycle length for signalized intersections was established at 130 seconds to optimize traffic flow and accommodate the operational characteristics of the study area. The 2025 and 2030 total traffic condition analyses, with detailed results provided in **Appendix D** and summarized in **Tables 15** and **Table 16**, respectively.

Table 15: 2025 Total Traffic Operation Summary

Intersection	Traffic Control	Key Movements	Weekday PM Peak Hour				Weekend PM Peak Hour			
			LOS	Delay (s)	v/c ratio	95 th Queue (m)	LOS	Delay (s)	v/c ratio	95 th Queue (m)
Innes Road & Jeannes d’Arc Boulevard / Mer-Bleue Road		EB-L	A	24.8	0.58	28.0	D	75.1	0.89	64.4
		EB-T	F	75.2	1.05	#230.8	F	76.0	1.04	216.3
		EB-R	A	2.4	0.21	7.0	A	4.7	0.27	13.1
		WB-L	E	73.7	0.93	#81.9	F	86.3	1.01	115.9
		WB-T	B	30.8	0.67	111.6	D	36.5	0.90	197.4
		WB-R	A	7.3	0.41	28.6	A	4.1	0.41	12.6
		NB-L	C	76.8	0.73	#35.6	C	75.5	0.76	41.6
		NB-TR	D	54.3	0.89	#75.9	D	52.2	0.89	75.3
		SB-L	F	110.8	1.05	#93.1	F	111.5	1.03	75.4
		SB-TR	C	52.9	0.77	83.2	B	50.0	0.68	60.3
		Overall	E	57.0	-	-	E	57.0	-	-
Innes Road & Trinity Crossing Mall Access		EB-T	D	9.8	0.83	m125.0	C	12.3	0.77	m90.6
		EB-R	A	0.7	0.24	m0.6	A	1.3	0.33	m1.3
		WB-L	B	53.0	0.71	#52.9	D	55.0	0.81	#72.0
		WB-T	A	3.2	0.47	34.4	B	8.1	0.64	67.3
		NB-L	C	60.6	0.72	53.3	D	62.9	0.86	88.2
		NB-R	B	24.6	0.64	37.9	A	10.7	0.57	27.6
		Overall	B	14.9	-	-	B	20.0	-	-
Innes Road & Drive In/Out Access		EB-T	A	0.0	0.54	0.0	A	0.0	0.45	0.0
		EB-R	A	0.0	0.03	0.0	A	0.0	0.05	0.0
		WB-T	A	0.0	0.38	0.0	A	0.0	0.49	0.0
		NB-R	A	12.1	0.20	5.0	A	11.2	0.22	5.9
		Overall	A	0.5	-	-	A	0.5	-	-
Innes Road & Prestwick Drive/Lanthier Drive		EB-L	A	12.1	0.25	m6.2	A	15.6	0.43	m4.9
		EB-T	E	19.2	0.92	75.1	C	11.8	0.82	51.9
		EB-R	A	3.1	0.13	m2.8	A	0.4	0.08	m0.0
		WB-L	B	40.5	0.69	m#25.4	A	29.7	0.66	m10.0
		WB-TR	A	9.2	0.49	93.7	B	7.2	0.67	m112.5
		NB-L	B	57.0	0.62	57.8	A	49.1	0.42	40.2
		NB-TR	A	31.9	0.24	26.9	A	25.0	0.28	26.4
		SB-L	A	41.3	0.09	12.3	A	41.2	0.09	11.5
		SB-TR	A	28.6	0.28	28.2	A	24.0	0.27	25.1
		Overall	C	18.6	-	-	B	12.4	-	-
Innes Road & Tenth Line Road		EB-L	D	50.8	0.87	m60.1	E	56.5	0.93	m#91.2
		EB-T	E	38.9	0.94	m#167.6	C	30.4	0.77	127.0
		EB-R	A	10.9	0.36	m23.7	A	10.2	0.39	m29.9
		WB-L	E	103.4	0.91	#79.5	D	98.8	0.87	#68.9
		WB-T	A	42.4	0.59	80.3	D	55.2	0.82	103.1
		WB-R	A	8.9	0.44	25.2	A	10.5	0.52	29.4
		NB-L	C	77.2	0.74	#36.3	E	85.3	0.91	#66.7
		NB-T	D	65.0	0.88	#99.8	C	50.5	0.75	94.0
		NB-R	A	6.5	0.44	13.7	A	2.7	0.26	4.5
		SB-L	E	84.1	0.92	#73.3	D	73.9	0.82	#55.0
		SB-T	D	54.5	0.83	107.1	C	52.3	0.79	100.7
		SB-R	B	16.6	0.70	56.1	E	54.5	0.98	#149.1
		Overall	D	46.1	-	-	D	48.8	-	-

Notes: NB=Northbound SB=Southbound EB=Eastbound WB=Westbound, L=left R=right T=through, m = metered queue, # = volume for the 95th %ile cycle exceeds capacity

The intersections of Innes Road with Trinity Crossing Mall Access, Innes Road Drive In/Out Access, and Prestwick Drive/Lanthier Drive generally operate at acceptable levels of service, exhibiting minimal delays and queuing under 2025 total traffic conditions. At the intersection of Innes Road and Trinity Crossing Mall Access, the overall LOS B, with an average delay of 15-20 seconds per vehicle during peak hours. This suggests moderate congestion during peak periods, though the queue remains

within the available storage capacity, avoiding spillback into adjacent segments. The intersection of Innes Road and Drive In/Out Access performs exceptionally well, achieving an overall LOS A with an average delay of just 0.5 seconds, indicating negligible queuing and free-flow conditions even during peak demand. Similarly, the intersection of Innes Road and Prestwick Drive/Lanthier Drive is expected to operate at an overall LOS C, with delays ranging between 12 and 18 seconds depending on the time of day and traffic volume. No significant operational deficiencies have been observed. These intersections function adequately, with congestion levels that remain manageable and no critical issues necessitating immediate structural upgrades. The primary challenge across this corridor stems from excessive eastbound and westbound traffic volumes along Innes Road during peak hours—which intermittently strain capacity but do not overwhelm these intersections yet.

The intersection of Innes Road and Jeanne d'Arc Boulevard/Mer-Bleau Road, however, experiences significant congestion, particularly affecting eastbound and westbound through movements, as well as several left-turn movements. Traffic analysis indicates queue lengths exceeding 200 meters for eastbound through (EB-T) during weekday peak hour and westbound through (WB-T) movements during both weekday and weekend peak hours, with the EB-T movement reaching an extreme 230.8 meters, an LOS F, and a volume-to-capacity (v/c) ratio of 1.05. These metrics reflect demand surpassing available capacity, leading to long backups and average delays of 57 seconds, resulting in an overall LOS E. Left-turn movements, notably westbound left (WB-L) and southbound left (SB-L), contribute to congestion, with significant delays due to limited green time and constrained storage space. To address these issues, the implementation of adaptive signal control is recommended, enabling dynamic adjustments to signal timings based on real-time traffic conditions detected via vehicle sensors. This would prioritize high-delay movements—such as EB-T, WB-L, and SB-L—during peak hours, potentially reducing delays and improving throughput. Furthermore, sufficient right-of-way exists to extend the left-turn storage lanes for both WB-L and SB-L approaches, which may decrease queue spillback, improve v/c ratios and elevate the LOS for critical movements. These improvements could enhance the operational efficiency, traffic flow, and safety along this heavily utilized segment.

The intersection of Innes Road and Tenth Line Road operates at an overall LOS D, with notable queuing issues, including a 167.6-meter queue for the eastbound through (EB-T) movement during the weekday period. Similar to the intersection of Innes Road and Jeanne d'Arc Boulevard/Mer-Bleau Road, recommended strategies include implementing adaptive signal control which would optimize signal timing during peak hours at Innes Road intersections with dual left turn lanes operating as protected phases, addressing the potential operational failures. Extending storage lanes, especially eastbound dual left turn should be considered due to the eastbound left-turn queue length surpassing capacity on weekends. The access point approximately 150 meters west of the Tenth Line Road intersection should be evaluated for conversion to right-in and right-out to reduce queue spillback during peak hours.

Table 16: 2030 Total Traffic Operation Summary

Intersection	Traffic Control	Key Movements	Weekday PM Peak Hour				Weekend PM Peak Hour			
			LOS	Delay (s)	v/c ratio	95 th Queue (m)	LOS	Delay (s)	v/c ratio	95 th Queue (m)
Innes Road & Jeannes d'Arc Boulevard / Mer-Bleue Road		EB-L	C	34.7	0.71	#37.5	E	95.1	0.97	#72.6
		EB-T	F	94.5	1.11	#258.0	F	101.1	1.12	#245.8
		EB-R	A	3.1	0.23	9.1	A	4.7	0.29	14.1
		WB-L	F	175.0	1.24	#96.6	F	145.9	1.20	m#126.0
		WB-T	C	32.1	0.75	123.0	E	51.4	1.00	#230.5
		WB-R	A	6.8	0.44	32.2	A	4.0	0.44	m12.2
		NB-L	C	75.9	0.75	#37.9	C	76.3	0.79	#45.5
		NB-TR	E	65.3	0.95	#95.1	E	62.4	0.95	#93.2
		SB-L	F	136.8	1.15	#104.2	F	144.7	1.14	#85.2
		SB-TR	D	55.6	0.82	92.6	C	52.6	0.73	67.0
		Overall	E	71.2	-	-	E	74.9	-	-
Innes Road & Trinity Crossing Mall Access		EB-T	E	15.6	0.93	m148.7	D	15.1	0.87	m90.0
		EB-R	A	1.0	0.26	m0.9	A	1.5	0.37	m1.4
		WB-L	C	65.0	0.79	m#78.7	E	73.2	0.91	m#97.4
		WB-T	A	3.2	0.52	35.0	B	9.7	0.70	85.6
		NB-L	C	60.6	0.74	57.7	E	72.6	0.94	#109.8
		NB-R	C	40.4	0.74	55.1	B	14.9	0.63	39.7
		Overall	B	19.0	-	-	C	24.4	-	-
Innes Road & Drive In/Out Access		EB-T	A	0.0	0.59	0.0	A	0.0	0.49	0.0
		EB-R	A	0.0	0.04	0.0	A	0.0	0.05	0.0
		WB-T	A	0.0	0.41	0.0	A	0.0	0.53	0.0
		NB-R	A	14.7	0.27	7.3	A	12.4	0.27	7.8
		Overall	A	0.6	-	-	A	0.6	-	-
Innes Road & Prestwick Drive/Lanthier Drive		EB-L	A	13.2	0.32	m6.3	A	25.6	0.58	m5.3
		EB-T	E	26.3	0.99	m#279.1	D	16.2	0.91	64.3
		EB-R	A	3.8	0.14	m3.0	A	0.8	0.09	m0.2
		WB-L	D	67.8	0.89	m#30.0	C	42.1	0.78	m15.9
		WB-TR	A	10.3	0.54	105.8	C	7.8	0.73	m117.2
		NB-L	B	61.1	0.69	#65.0	A	50.4	0.46	43.4
		NB-TR	A	33.3	0.26	29.5	A	25.7	0.30	28.7
		SB-L	A	41.6	0.11	13.3	A	41.6	0.10	12.7
		SB-TR	A	30.3	0.31	31.4	A	28.3	0.30	29.9
		Overall	C	23.6	-	-	B	15.3	-	-
Innes Road & Tenth Line Road		EB-L	D	52.1	0.88	m60.1	E	65.2	0.99	m#89.0
		EB-T	F	55.4	1.04	m#172.9	D	31.0	0.83	m131.2
		EB-R	A	9.6	0.40	m22.4	A	10.3	0.43	m28.4
		WB-L	E	119.3	0.98	#88.4	E	108.5	0.93	#76.8
		WB-T	B	46.7	0.68	90.6	D	62.0	0.90	#122.7
		WB-R	A	11.5	0.50	32.6	A	13.1	0.57	37.6
		NB-L	D	96.1	0.88	#44.3	E	98.2	0.98	#74.6
		NB-T	E	72.4	0.94	#115.3	D	58.4	0.86	#111.9
		NB-R	A	8.2	0.47	18.7	A	3.7	0.30	7.8
		SB-L	F	100.9	1.00	#82.7	D	73.6	0.83	#59.3
		SB-T	D	56.1	0.87	#122.7	D	59.7	0.88	#119.4
		SB-R	C	18.4	0.73	65.9	F	87.0	1.09	#181.3
		Overall	D	53.8	-	-	E	57.2	-	-

Notes: NB=Northbound SB=Southbound EB=Eastbound WB=Westbound L=left R=right T=through, m = metered queue, # = volume for the 95th %ile cycle exceeds capacity

The intersections of Innes Road with Trinity Crossing Mall Access, Innes Road Drive (In/Out Access), and Prestwick Drive/Lanthier Drive generally operate at acceptable levels of service (LOS), characterized by minimal delays and queuing under 2030 total traffic conditions. Synchro analysis indicates that these intersections maintain LOS A to C during both weekday and weekend peak hours, with average vehicle delays remaining approximately 20 seconds and queue lengths rarely exceeding the available storage capacity. However, the primary challenge affecting the corridor is the excessive traffic volume travelling eastbound and westbound along Innes Road during peak periods, particularly during peak hours. This high demand occasionally results in localized congestion, though it does not yet compromise the significant operational integrity of these intersections. Overall, these locations appear to function adequately, with manageable congestion and no critical operational deficiencies requiring immediate structural intervention. Ongoing monitoring is recommended to ensure performance remains stable as traffic volumes evolve.

In contrast, the intersection of Innes Road and Jeanne d'Arc Boulevard/Mer-Bleau Road is projected to operate at an overall LOS E during both weekday and weekend peak hours, reflecting significant congestion and delays approaching capacity limits. Analysis reveals that eastbound through movements experience average delays exceeding 95-100 seconds, while left-turn movements—specifically westbound left (WB-L) and southbound left (SB-L)—face even greater constraints. These conditions are exacerbated by insufficient signal timing optimization and limited turn-lane storage, leading to queue spillback and reduced throughput. To mitigate these issues, it is recommended to implement adaptive signal control technology, which will adjust signal timings based on real-time traffic detection, offering a responsive solution to fluctuating demand, particularly during peak periods. Additionally, extending the left-turn storage lanes at both approaches would alleviate queuing pressure, reduce overall delays and improve the overall LOS to a target of D or better.

The intersection of Innes Road and Tenth Line Road currently operates at an overall LOS D during weekday peak hours and deteriorates to LOS E on weekends. Eastbound, westbound and southbound movements are experiencing the most significant impacts. As highlighted in the previous section, deploying adaptive signal control strategies would be recommended to optimize peak-hour signal timing for dual left turn lanes with protected phasing, mitigating potential operational failures such as delays and poor LOS. Complementary measures—extending left-turn storage lanes especially east-west corridor, because the eastbound left-turn queue length is estimated to exceed capacity during weekends, the access point located 150 meters west of the Tenth Line Road intersection should be modified to right-in and right-out to minimize queue spillback during peak hours.

To complement these intersection-specific measures, broader TDM strategies are proposed to address long-term traffic growth along the Innes Road corridor. Initiatives such as promoting carpooling, enhancing cycling infrastructure, and encouraging off-peak travel through public awareness campaigns could collectively reduce vehicle trips. Additionally, the deployment of future monitoring systems, such as real-time traffic sensors and predictive analytics, will ensure scalability as volumes trend toward 2030 projections, enabling proactive adjustments to signal timings and lane configurations.

5 SUMMARY FINDINGS AND RECOMMENDATIONS

Based on the analysis, key findings are as follows:

- A fast food restaurant facility was proposed at 4280 Innes Road in Orleans, Ottawa. The site is currently occupied by commercial uses and is zoned as General Mixed-Use (GM), specifically Sub-zone GM13. The site is located in a transit priority corridor with isolated measures based on the 2013 TMP.
- The site features two main access points, one on the southwest and another on the east side, to facilitate traffic flow around the building. It includes two drive-thru lanes with ample stacking capacity for peak traffic demand. The development consists of a one-story commercial building with a 462 m² (4,742 ft²) ground floor area.
- A total of 54 collisions were recorded in five years within the study area. No areas were flagged as high risk or requiring imminent modifications.
- The proposed study area for this development includes three key intersections: Innes Road & Lanthier Drive/Prestwick Drive, Innes Road & the east Drive-In/Out access of Swiss Chalet, and Innes Road & Trinity Crossing Mall Access. The study focuses on these signalized intersections along Innes Road near the main mall access points. While many trips are expected to be generated independently by the proposed development, the study area assumes a significant portion of traffic will be mall-related, especially during peak periods. This delineation ensures a comprehensive analysis of traffic impacts in the area.
- The proposed development is expected to reach full buildout by 2025, and the transportation assessment encompasses the following horizon years: 2024 Existing Conditions, 2025 Future Background Conditions, 2025 Total Future Conditions (build-out year), 2030 Future Background Conditions, and 2030 Total Future Conditions (five years post-build-out).
- Under the proposed development, there will be 115 vehicle trips during the weekday afternoon peak hour and 191 trips during the weekend afternoon peak hour.
- Once the proposed site is fully built-out, a total of 46 parking spaces including two accessible spaces will be available. These proposed spaces meet the city's minimum parking requirements. 6 bike parking spaces will be available which meet the minimum by-law requirements.
- The Synchro existing traffic condition analysis of five intersections along Innes Road reveals varied traffic performance during weekday and weekend PM peak hours. Innes Road & Jeanne d'Arc Boulevard/Mer-Bleue Road suffers significant congestion with an LOS F, driven by heavy left-turn movements, while Innes Road & Tenth Line Road operates near capacity at LOS E, with delays of 55-59 seconds and weekend queues reaching 157.4 meters. The Jeanne d'Arc and Tenth Line intersections, also may require signal timing adjustments or capacity improvements. Intersection of Innes Road & Trinity Crossing Mall Access and Innes Road & Prestwick Drive/Lanthier Drive perform well at LOS B and C, with delays of 25-32 seconds and queues below 60 meters. The all-way stop at Innes Road & Drive In/Out Access excels at LOS A, with minimal delays (0.5-0.6 seconds) and queues (6-7 meters).
- The background traffic growth rate within the study area was determined to be 1.75% annually, based on a comparison of the 2022 and 2046 TRANS Regional models.
- The MMLOS road segment analysis
 - Innes Road fails to meet Pedestrian Level of Service (PLOS) targets, requiring a speed reduction to 50 km/h with compliance testing to achieve them, while its Bicycle Level of Service (BLOS) targets are also unmet due to high operating speeds, though a reduction to 50 km/h would suffice. For Transit Level of Service (TLOS), Innes Road operates with mixed traffic, where buses share lanes with other vehicles, and as part of Ottawa's active transportation and transit enhancement efforts, it successfully meets TLOS targets. Designated as a truck route by the City of Ottawa, Innes Road supports heavy vehicle traffic for goods and services movement, meeting Truck Level of Service (TkLOS) targets.
- The MMLOS intersection analysis
 - At the signalized intersections within the study area featuring pocket bike lanes, the Pedestrian Level of Service (PLOS) fails to meet targets due to extended crossing distances of five or more lanes (except at the north leg of Innes Road/Prestwick Drive/Lanthier Drive), with no feasible solution achieving PLOS 'C' despite potential treatments like raised crosswalks. The Bicycle LOS target is unmet across all intersections due to high speeds on Innes Road, while the Transit LOS target is missed as bus movements exceed the 30-second delay threshold. The Truck LOS is achieved at Innes Road/Jeanne d'Arc Boulevard/Mer-Bleue Road and Tenth Line Road intersections, thanks to large corner radii and dual receiving lanes, but not at Innes Road/Trinity Crossing Mall Access or Prestwick Drive/Lanthier Drive due to insufficient receiving lanes. Similarly, the Auto LOS target is unmet at Innes Road/Jeanne d'Arc Boulevard/Mer-Bleue Road and Tenth Line Road intersections due to excessive peak-hour demand, though it is achieved at Innes Road/Trinity Crossing Mall Access and Prestwick Drive/Lanthier Drive.

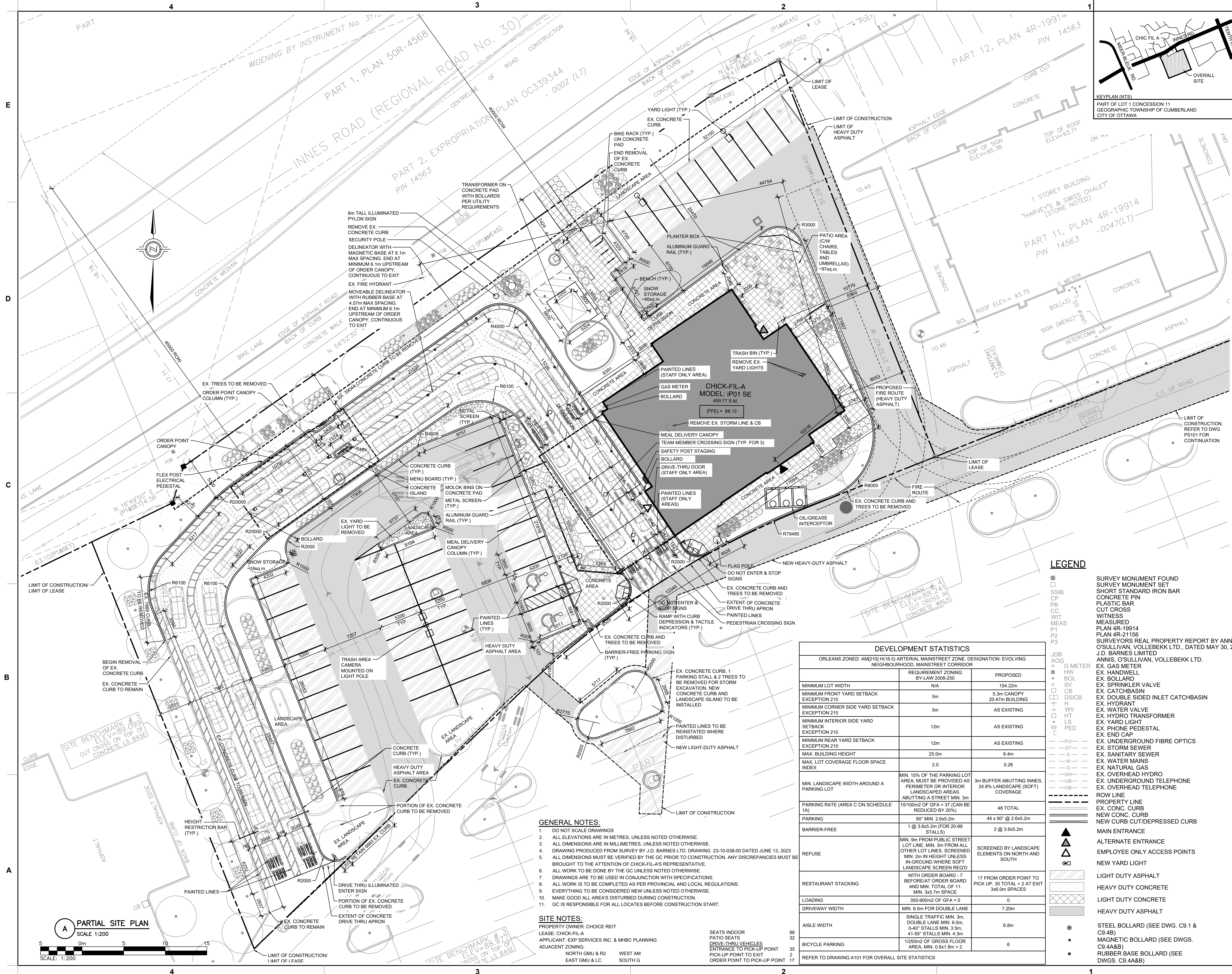
- The 2025 background traffic conditions
 - While some intersections along Innes Road maintain acceptable LOS under 2025 background traffic conditions, others, including Innes Road & Jeanne d’Arc Boulevard/Mer-Bleue Road and Innes Road & Tenth Line Road, exhibit over-capacity conditions during peak hours, resulting in increased delays and queuing, which underscores the need for targeted mitigation measures to improve traffic flow and ensure acceptable levels of service.
- The 2030 background traffic conditions
 - The 2030 background traffic conditions indicate a decline in intersection performance compared to 2025, with intersections like Innes Road & Jeanne d’Arc Boulevard/Mer-Bleue Road and Innes Road & Tenth Line Road operating at LOS D or worse during peak hours, highlighting increased delays and queuing that necessitate mitigation measures to address over-capacity issues and maintain acceptable levels of service.
- The 2025 total traffic conditions
 - Under 2025 total traffic conditions, the intersections along Innes Road at Trinity Crossing Mall Access, Innes Road Drive In/Out Access, Prestwick Drive/Lanthier Drive, Jeanne d’Arc Boulevard/Mer-Bleau Road, and Tenth Line Road exhibit varied performance, with Trinity Crossing Mall Access operating at LOS B, Innes Road Drive In/Out Access at LOS A, and Prestwick Drive/Lanthier Drive at LOS C, all showing manageable congestion and minimal queuing despite high eastbound and westbound traffic volumes on Innes Road during peak hours.
 - However, the intersection at Jeanne d’Arc Boulevard/Mer-Bleau Road experiences significant congestion, operating at LOS E with average delays of 57 seconds, queue lengths exceeding 200 meters, and high delays for WB-L and SB-L movements, necessitating adaptive signal control and extended left-turn storage lanes to improve throughput and LOS.
 - The Innes Road and Tenth Line Road intersection operates at LOS D during weekday peak hours, with a significant eastbound through movement queue. To address these issues, adaptive signal control should be implemented to optimize phasing to mitigate potential operational failures during the peak hour period. Extending eastbound left-turn storage lanes is recommended, as weekend queue lengths exceed capacity. Additionally, converting the access point 150 meters west of the intersection to right-in and right-out will help reduce peak-hour queue spillback, improving traffic flow.
- The 2030 total traffic conditions
 - The intersections along Innes Road, including Trinity Crossing Mall Access, Innes Road Drive, Prestwick Drive/Lanthier Drive, Jeanne d’Arc Boulevard/Mer-Bleau Road, and Tenth Line Road, exhibit varying levels of performance under 2030 total traffic conditions. While the intersections at Trinity Crossing Mall Access, Innes Road Drive, and Prestwick Drive/Lanthier Drive operate at acceptable LOS A to C with minimal delays and manageable queuing during weekday and weekend peak hours, they experience localized congestion due to high eastbound and westbound traffic volumes on Innes Road, though this does not critically impact operations.
 - The intersection at Jeanne d’Arc Boulevard/Mer-Bleau Road operates at LOS E during peak hours, with significant delays due to insufficient signal timing and limited turn-lane storage, necessitating adaptive signal control and extended left-turn lanes to improve LOS to D or better.
 - The Innes Road and Tenth Line Road intersection currently operates at LOS D during weekday peak hours, worsening to LOS E on weekends, with significant impacts on eastbound, westbound, and southbound movements. To address these issues, adaptive signal control strategies should be deployed to optimize signal timing for dual left-turn lanes with protected phasing, reducing delays and improving LOS. Additionally, extending left-turn storage lanes along the east-west corridor and converting the access point 150 meters west of the intersection to right-in and right-out are recommended to mitigate eastbound queue spillback, particularly during weekends when left-turn queue lengths exceed capacity.

Overall, the proposed development aligns with the surrounding infrastructure capabilities and municipal planning objectives. Implementation of the recommended measures will ensure safe and efficient traffic operations while promoting sustainable transportation options.

Appendix A

Site Plan

E:\BRM\BRM-23002042-H0160 Execution\65 Drawings\23002042-H0-A100-RT.dwg
7 March 2025



LEGEND

■	SSIB	SURVEY MONUMENT FOUND
□	OP	SURVEY MONUMENT SET
□	PB	SHORT STANDARD IRON BAR
□	CC	CONCRETE PIN
□	WIT	PLASTIC BAR
□	MEAS	CUT CROSS
P1		WITNESS
P2		MEASURED
P3		PLAN 4R-19914
		PLAN 4R-21156
		SURVEYORS REAL PROPERTY REPORT BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD., DATED MAY 30, 2006
		J.D. BARNES LIMITED
		ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
■	G METER	EX. GAS METER
■	HW	EX. HANDWELL
■	BOL	EX. BOLLARD
■	SV	EX. SPRINKLER VALVE
■	CB	EX. CATCHBASIN
■	DSIB	EX. DOUBLE SIDED INLET CATCHBASIN
■	H	EX. HYDRANT
■	WV	EX. WATER VALVE
■	HT	EX. HYDRO TRANSFORMER
■	LS	EX. YARD LIGHT
■	PED	EX. PHONE PEDESTAL
■	FO	EX. END CAP
■	ST	EX. UNDERGROUND FIBRE OPTICS
■	S	EX. STORM SEWER
■	SS	EX. SANITARY SEWER
■	W	EX. WATER MAINS
■	G	EX. NATURAL GAS
■	OH	EX. OVERHEAD HYDRO
■	OB	EX. UNDERGROUND TELEPHONE
■	OB	EX. OVERHEAD TELEPHONE
---	ROW LINE	
---	PROPERTY LINE	
---	EX. CONC. CURB	
---	NEW CONC. CURB	
---	NEW CURB CUT/DEPRESSED CURB	
---	MAIN ENTRANCE	
---	ALTERNATE ENTRANCE	
---	EMPLOYEE ONLY ACCESS POINTS	
---	NEW YARD LIGHT	
---	LIGHT DUTY ASPHALT	
---	HEAVY DUTY CONCRETE	
---	LIGHT DUTY CONCRETE	
---	HEAVY DUTY ASPHALT	
○	STEEL BOLLARD (SEE DWG. C9.1 & C9.4B)	
•	MAGNETIC BOLLARD (SEE DWGS. C9.4A&B)	
■	RUBBER BASE BOLLARD (SEE DWGS. C9.4A&B)	

GENERAL NOTES:

- DO NOT SCALE DRAWINGS
- ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.
- DRAWING PRODUCED FROM SURVEY BY J.D. BARNES LTD. DRAWING 23-10-038-00 DATED JUNE 13, 2023
- ALL DIMENSIONS MUST BE VERIFIED BY THE GC PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF CHICK-FIL-A'S REPRESENTATIVE.
- ALL WORK TO BE DONE BY THE GC UNLESS NOTED OTHERWISE.
- DRAWINGS ARE TO BE USED IN CONJUNCTION WITH SPECIFICATIONS.
- ALL WORK IS TO BE COMPLETED AS PER PROVINCIAL AND LOCAL REGULATIONS.
- EVERYTHING TO BE CONSIDERED NEW UNLESS NOTED OTHERWISE.
- MAKE GOOD ALL AREA'S DISTURBED DURING CONSTRUCTION.
- GC IS RESPONSIBLE FOR ALL LOCATES BEFORE CONSTRUCTION START.

SITE NOTES:

PROPERTY OWNER: CHOICE REIT
LEASE: CHICK-FIL-A
APPLICANT: EXP SERVICES INC. & MHCB PLANNING
ADJACENT ZONING:
NORTH GMU & R2
EAST GMU & LC
WEST AM
SOUTH G

SEATS INDOOR
PATIO SEATS
DRIVE-THRU VEHICLES
ENTRANCE TO PICK-UP POINT
PICK-UP POINT TO EXIT
ORDER POINT TO PICK-UP POINT

DEVELOPMENT STATISTICS		
ORLEANS ZONED: AM(210) H(18.5) ARTERIAL MAINSTREET ZONE. DESIGNATION: EVOLVING NEIGHBOURHOOD, MAINSTREET CORRIDOR		
	REQUIREMENT ZONING BY-LAW 2008-250	PROPOSED
MINIMUM LOT WIDTH	N/A	154.22m
MINIMUM FRONT YARD SETBACK EXCEPTION 210	5m	5.3m CANOPY 20.47m BUILDING
MINIMUM CORNER SIDE YARD SETBACK EXCEPTION 210	5m	AS EXISTING
MINIMUM INTERIOR SIDE YARD SETBACK EXCEPTION 210	12m	AS EXISTING
MINIMUM REAR YARD SETBACK EXCEPTION 210	12m	AS EXISTING
MAX. BUILDING HEIGHT	25.0m	6.4m
MAX. LOT COVERAGE FLOOR SPACE INDEX	2.0	0.28
MIN. LANDSCAPE WIDTH AROUND A PARKING LOT	MIN. 15% OF THE PARKING LOT AREA, MUST BE PROVIDED AS PERIMETER OR INTERIOR LANDSCAPED AREAS. ABUTTING A STREET MIN. 3m	3m BUFFER ABUTTING INNES, 24.8% LANDSCAPE (SOFT) COVERAGE
PARKING (AREA C ON SCHEDULE 1A)	10/100m ² OF GFA = 37 (CAN BE REDUCED BY 20%)	46 TOTAL
PARKING	90' MIN. 2.6x5.2m	44 x 90' @ 2.6x5.2m
BARRIER-FREE	1 @ 3.6x5.2m (FOR 20-99 STALLS)	2 @ 3.6x5.2m
REFUSE	MIN. 9m FROM PUBLIC STREET LOT LINE, MIN. 3m FROM ALL OTHER LOT LINES. SCREENED MIN. 2m IN HEIGHT UNLESS IN-GROUND WHERE SOFT LANDSCAPE SCREEN REQD	SCREENED BY LANDSCAPE ELEMENTS ON NORTH AND SOUTH
RESTAURANT STACKING	WITH ORDER BOARD - 7 BEFORE/AT ORDER BOARD AND MIN. TOTAL OF 11. MIN. 3x5.7m SPACE	17 FROM ORDER POINT TO PICK UP, 35 TOTAL + 2 AT EXIT 3x6.0m SPACES
LOADING	350-900m ² OF GFA = 0	0
DRIVEWAY WIDTH	MIN. 6.0m FOR DOUBLE LANE	7.20m
aisle width	SINGLE TRAFFIC MIN. 3m, DOUBLE LANE MIN. 6.0m, 0-40° STALLS MIN. 3.5m, 41-55° STALLS MIN. 4.3m	6.8m
BICYCLE PARKING	1/250m ² OF GROSS FLOOR AREA, MIN. 0.6x1.8m = 2	6
REFER TO DRAWING A101 FOR OVERALL SITE STATISTICS		

Issued for SPA

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998

exp Services Inc.
T: +1.905.793.8800 F: +1.905.793.0641
1595 Clark Boulevard
Brampton, ON L6T 4V1
Canada
www.exp.com

exp.

BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

CHICK-FIL-A
ORLEANS

4270 Innes Road
Ottawa, ON

FSR#30042

BUILDING TYPE / SIZE: IP01 SE
RELEASE: XXXXXXXX

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
Q	2024-10-02	FOR SPA
R	2025-01-23	REISSUED FOR SPA
S	2025-02-20	REISSUED FOR SPA
T	2025-03-17	REISSUED FOR SPA

CONSULTANT PROJECT # BRM0023002042-H0
PROJECT STATUS SPA
DATE MAY 2023
DRAWN BY T.M.

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
SITE PLAN

SHEET NUMBER

A100

E
D
C
B
A

DEVELOPMENT STATISTICS		
ZONED: AM(210) H(18.5) ARTERIAL MAINSTREET ZONE DESIGNATION: EVOLVING NEIGHBOURHOOD, MAINSTREET CORRIDOR		
	EXISTING	PROPOSED
SITE AREA	6.43 HECTARE	NO CHANGE
**EXISTING GAS STATION BUILDING AREA	93 SQ.M.	NO CHANGE
*EXISTING GROCERY STORE BUILDING AREA	14,402.20 SQ.M.	NO CHANGE
*EXISTING GROCERY STORE MEZZANINE	1,989.80 SQ.M.	NO CHANGE
*EXISTING BUILDING COVERAGE	16,485 SQ.M. (25.64%)	NO CHANGE
PROPOSED CHICK-FIL-A BUILDING AREA		461.94 SQ.M.
TOTAL BUILDING COVERAGE	16,485 SQ.M. (25.64%)	16,946.94 SQ.M. (26.36%)
PROPOSED CFA LEASE AREA		4,741.81 SQ.M.
**TOTAL GAS STATION PARKING	11 + 1 BF = 12	NO CHANGE
***TOTAL GROCERY STORE PARKING	1,026 + 20 BF = 1,046	-99 = 927 + 20 BF = 947
CFA LEASE AREA PARKING	98 + 0 BF = 98	44 + 2 BF = 46
***TOTAL SITE PARKING	1,058	983 + 23 BF = 1,006
***TOTAL SITE LANDSCAPE	5,382.50 SQ.M. (8.39%)	5,557.07 SQ.M. (8.64%)
CFA LEASE AREA LANDSCAPE	1,011.28 SQ.M.	1,175.85 SQ.M.
REFER TO DRAWING A100 FOR ADDITIONAL CFA SITE STATISTICS		
*INFORMATION FROM HARDCOPY ON FILE WITH CITY STAMPED JULY 19, 2004.		
** INFORMATION FROM LANDLORD PROVIDED DRAWING A1-Z2B DATED MARCH 7, 2005.		
***INFORMATION OBTAINED FROM VARIOUS SOURCES AND SITE COUNTS.		
BF = BARRIER-FREE		

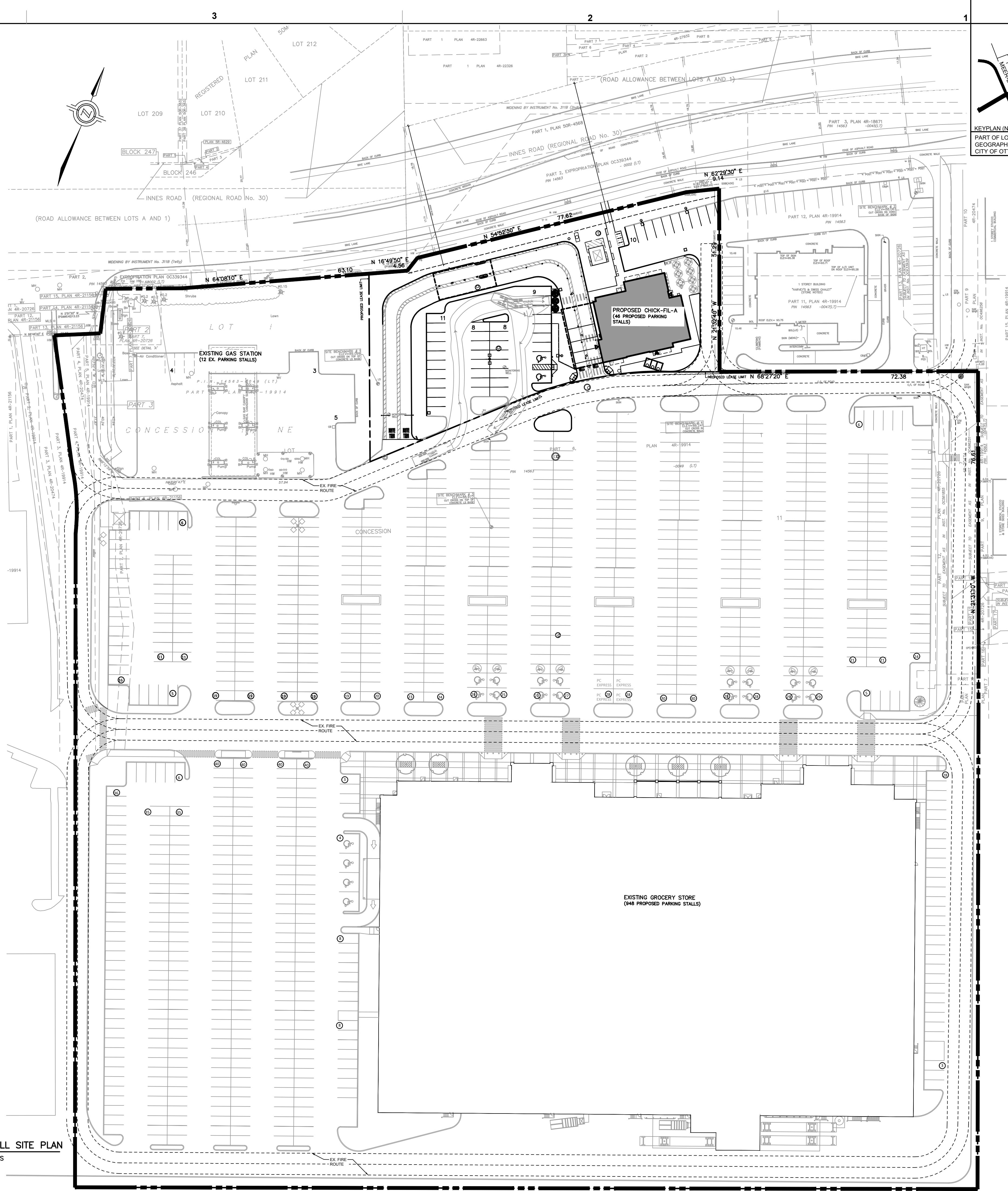
GENERAL NOTES:

- DO NOT SCALE DRAWINGS
- ALL ELEVATIONS ARE IN METRES, UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.
- ALL DIMENSIONS MUST BE VERIFIED BY THE GC PRIOR TO CONSTRUCTION. ANY DISCREPANCIES MUST BE BROUGHT TO THE ATTENTION OF CHICK-FIL-A'S REPRESENTATIVE.
- ALL WORK TO BE DONE BY THE GC UNLESS NOTED OTHERWISE.
- DRAWINGS ARE TO BE USED IN CONJUNCTION WITH SPECIFICATIONS.
- ALL WORK IS TO BE COMPLETED AS PER PROVINCIAL AND LOCAL REGULATIONS.
- MAKE GOOD ALL AREA'S DISTURBED DURING CONSTRUCTION.
- GC IS RESPONSIBLE FOR ALL LOCATES BEFORE CONSTRUCTION START.

LEGEND

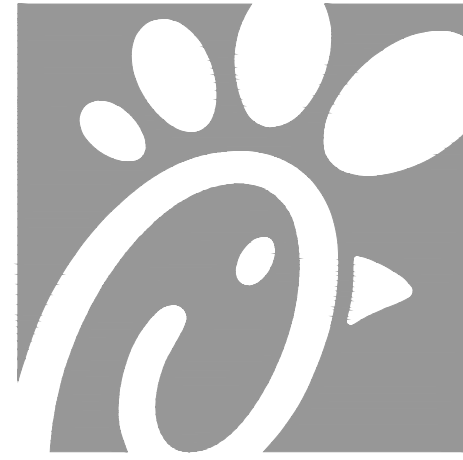
- | | |
|------------------------------|---|
| ■ | SURVEY MONUMENT FOUND |
| □ | SURVEY MONUMENT SET |
| SSIB | SHORT STANDARD IRON BAR |
| CP | CONCRETE PIN |
| PB | PLASTIC BAR |
| CC | CUT CROSS |
| WIT | WITNESS |
| MEAS | MEASURED |
| P1 | PLAN 4R-19914 |
| P2 | PLAN 4R-21156 |
| P3 | SURVEYORS REAL PROPERTY REPORT BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD., DATED MAY 30, 2006 |
| JDB | J.D. BARNES LIMITED |
| AOG | ANNIS, O'SULLIVAN, VOLLEBEKK LTD. |
| G METER | EX. GAS METER |
| HW | EX. HANDWELL |
| BOL | EX. BOLLARD |
| SV | EX. SPRINKLER VALVE |
| CB | EX. CATCHBASIN |
| DSICB | EX. DOUBLE SIDED INLET CATCHBASIN |
| H | EX. HYDRANT |
| WV | EX. WATER VALVE |
| HT | EX. HYDRO TRANSFORMER |
| LS | EX. YARD LIGHT |
| PED | EX. PHONE PEDESTAL |
| END CAP | EX. END CAP |
| EX. UNDERGROUND FIBRE OPTICS | |
| EX. STORM SEWER | |
| EX. SANITARY SEWER | |
| EX. WATER MAINS | |
| EX. NATURAL GAS | |
| EX. OVERHEAD HYDRO | |
| EX. UNDERGROUND TELEPHONE | |
| EX. OVERHEAD TELEPHONE | |
| ROW LINE | |
| PROPERTY LINE | |
| EX. CONC. CURB | |
| NEW CONC. CURB | |
| NEW CURB CUT/DEPRESSED CURB | |
| ▲ | MAIN ENTRANCE |
| ▲ | ALTERNATE ENTRANCE |
| △ | EMPLOYEE ONLY ACCESS POINTS |

OVERALL SITE PLAN
SCALE NTS



KEYPLAN (NTS)

PART OF LOT 1 CONCESSION 11
GEOGRAPHIC TOWNSHIP OF CUMBERLAND
CITY OF OTTAWA



Chick-fil-A

Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998

exp Services Inc.
T: +1.905.793.9800 F: +1.905.793.0641
1595 Clark Boulevard
Brampton, ON L6T 4V1
Canada

www.exp.com



• BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
• INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY



CHICK-FIL-A
ORLEANS
4270 Innes Road
Ottawa, ON

FSR#30042

BUILDING TYPE / SIZE: IP01 SE
RELEASE: XXXXXXXXX

REVISION SCHEDULE

NO.	DATE	DESCRIPTION
A	2024-10-04	FOR SPA
B	2025-01-23	REISSUED FOR SPA
C	2025-03-17	REISSUED FOR SPA

CONSULTANT PROJECT # BRM0023002042-H0

PROJECT STATUS SPA

DATE SEPTEMBER 2024

DRAWN BY T.M.

Information contained on this drawing and in all digital files produced for above named project may not be reproduced in any manner without express written or verbal consent from authorized project representatives.

SHEET
OVERALL SITE PLAN

SHEET NUMBER

A101

Issued for SPA

Appendix B

TIA Screening Form

City of Ottawa 2017 Transportation Impact Assessment (TIA) Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	4270 Innes Road, Orleans
Description of Location	South side of Innes Road, between Du Grand Bois Ave & Lanthier Dr
Land Use Classification	Commercial
Development Size (units)	1
Development Size (m ²)	452.4
Number of Accesses and Locations	3
Phase of Development	Precon
Buildout Year	2024-2025

If available, please attach a sketch of the development or site plan to this form.

2. Trip Generation Trigger

Considering the Development's Land Use type and Size (as filled out in the previous section), please refer to the Trip Generation Trigger checks below.

Table notes:

1. Table 2, Table 3 & Table 4 TRANS Trip Generation Manual
2. Institute of Transportation Engineers (ITE) Trip Generation Manual 11.1 Ed.

Land Use Type	Minimum Development Size
Single-family homes	60 units
Multi-Use Family (Low-Rise) ¹	90 units
Multi-Use Family (High-Rise) ¹	150 units
Office ²	1,400 m ²
Industrial ²	7,000 m ²
Fast-food restaurant or coffee shop ²	110 m ²
Destination retail ²	1,800 m ²
Gas station or convenience market ²	90 m ²

If the proposed development size is greater than the sizes identified above, the Trip Generation Trigger is satisfied.

¹ Hubs are identified in Schedules B1 to B8 of the City of Ottawa Official Plan. PMTSAs are identified in Schedule C1 of the Official Plan. DPAs are identified in Schedule C7A and C7B of the Official. See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA.

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority Network, Rapid Transit network or Cross-Town Bikeways?		X
Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)? ¹		X

If any of the above questions were answered with 'Yes,' the Location Trigger is satisfied.

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street 80 km/hr or greater?		X
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		X
Is the proposed driveway within the area of influence of an adjacent traffic signal or roundabout (i.e. within 300 m of intersection in rural conditions, or within 150 m of intersection in urban/ suburban conditions)?		X
Is the proposed driveway within auxiliary lanes of an intersection?		X
Does the proposed driveway make use of an existing median break that serves an existing site?		X
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		X
Does the development include a drive-thru facility?	X	

If any of the above questions were answered with 'Yes,' the Safety Trigger is satisfied.

5. Summary

	Yes	No
Does the development satisfy the Trip Generation Trigger?	X	
Does the development satisfy the Location Trigger?		X
Does the development satisfy the Safety Trigger?	X	

If none of the triggers are satisfied, the TIA Study is complete. If one or more of the triggers is satisfied, the TIA Study must continue into the next stage (Screening and Scoping).

Appendix C

City of Ottawa Turning Movement Counts

Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

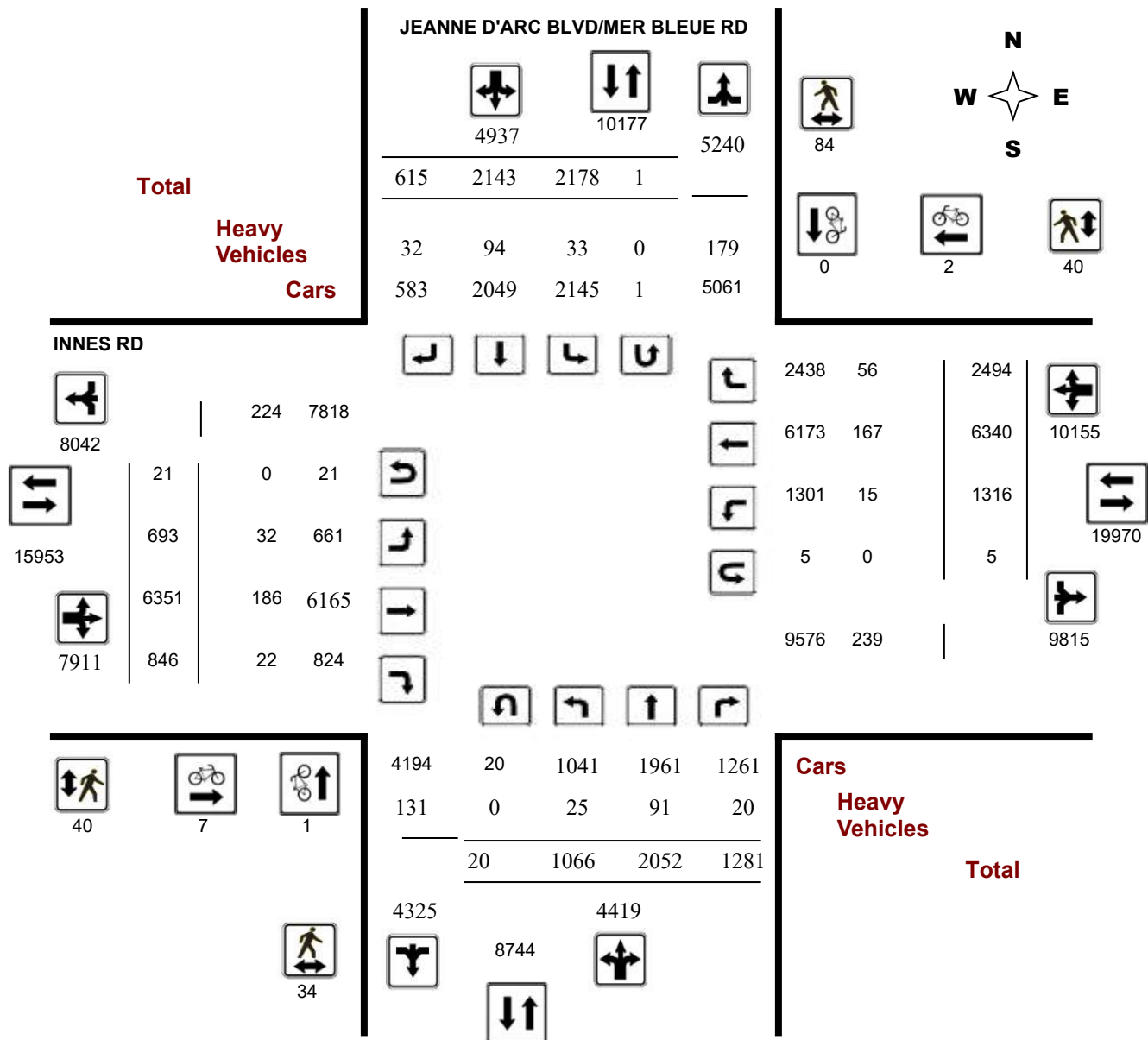
Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study Diagram



5469225 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

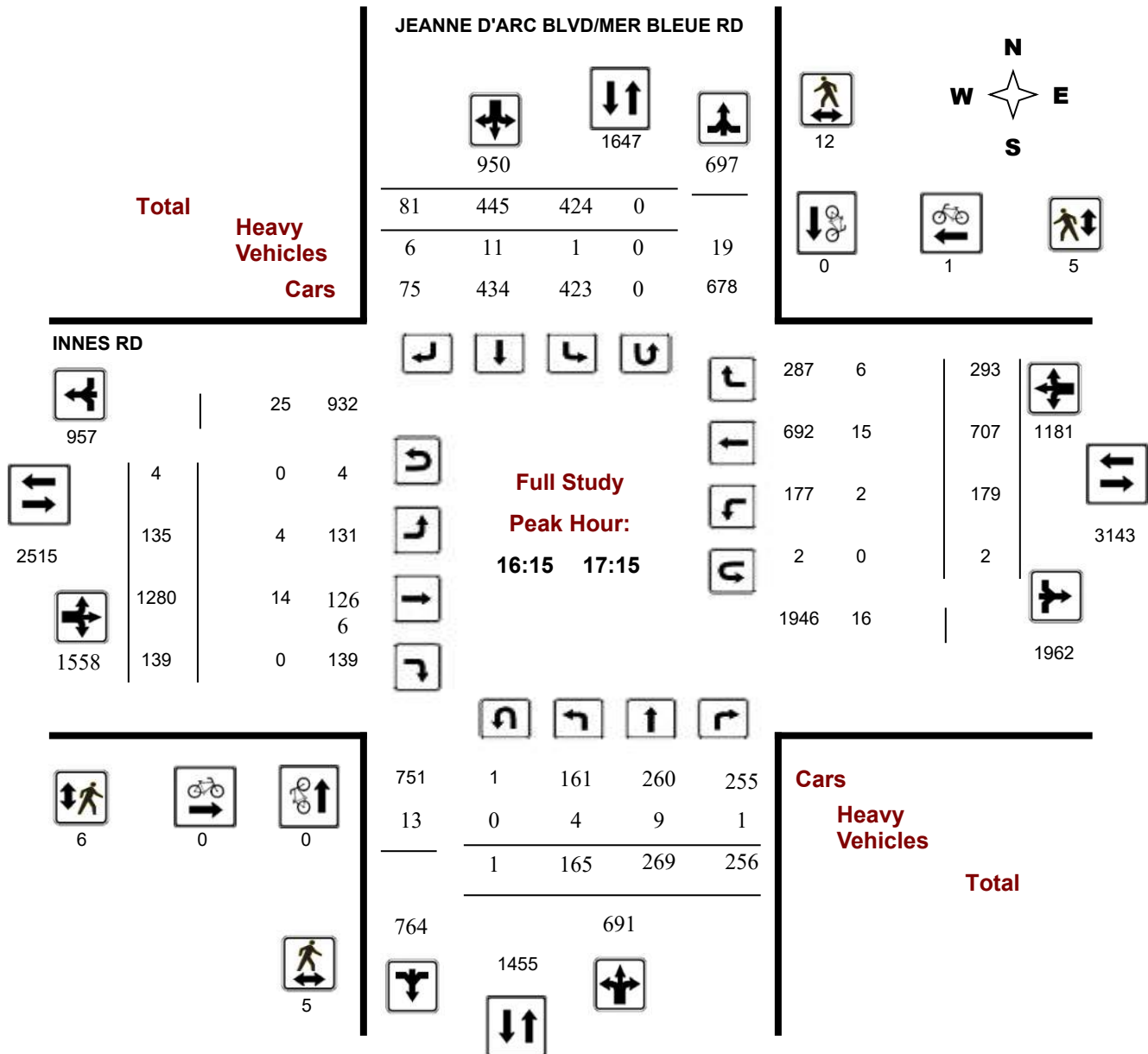
Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



5469225 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

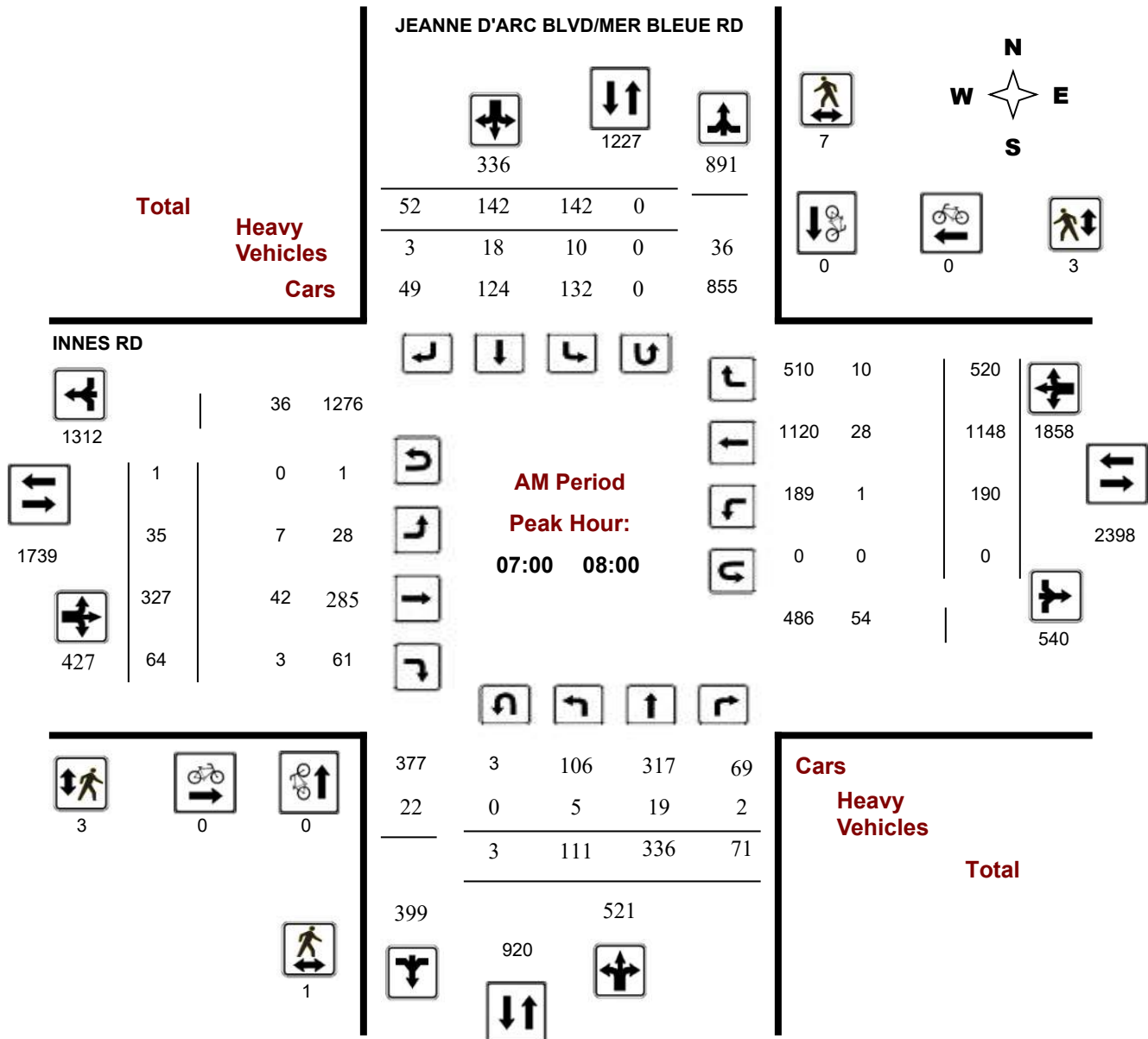
Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

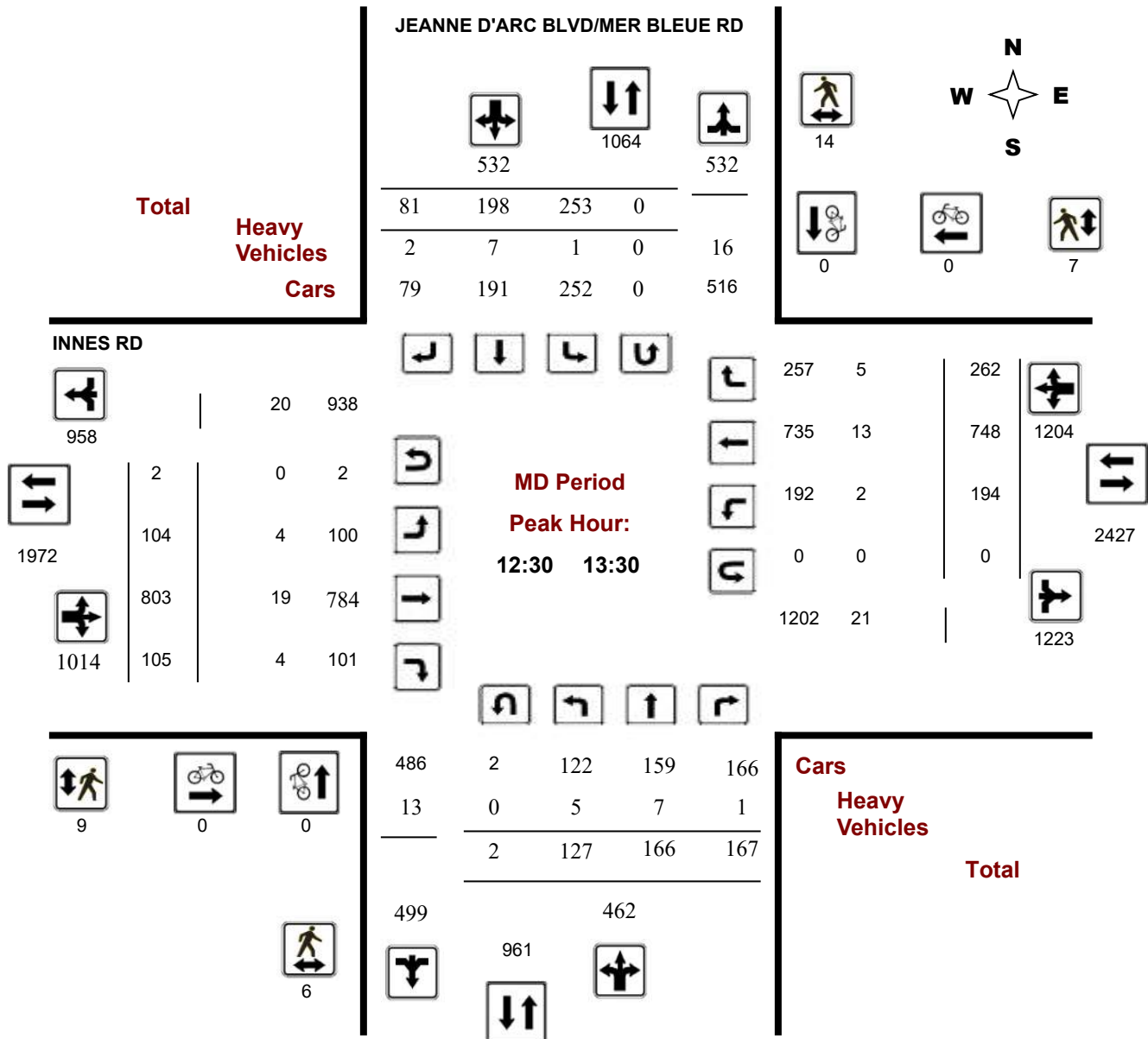
Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



5469225 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

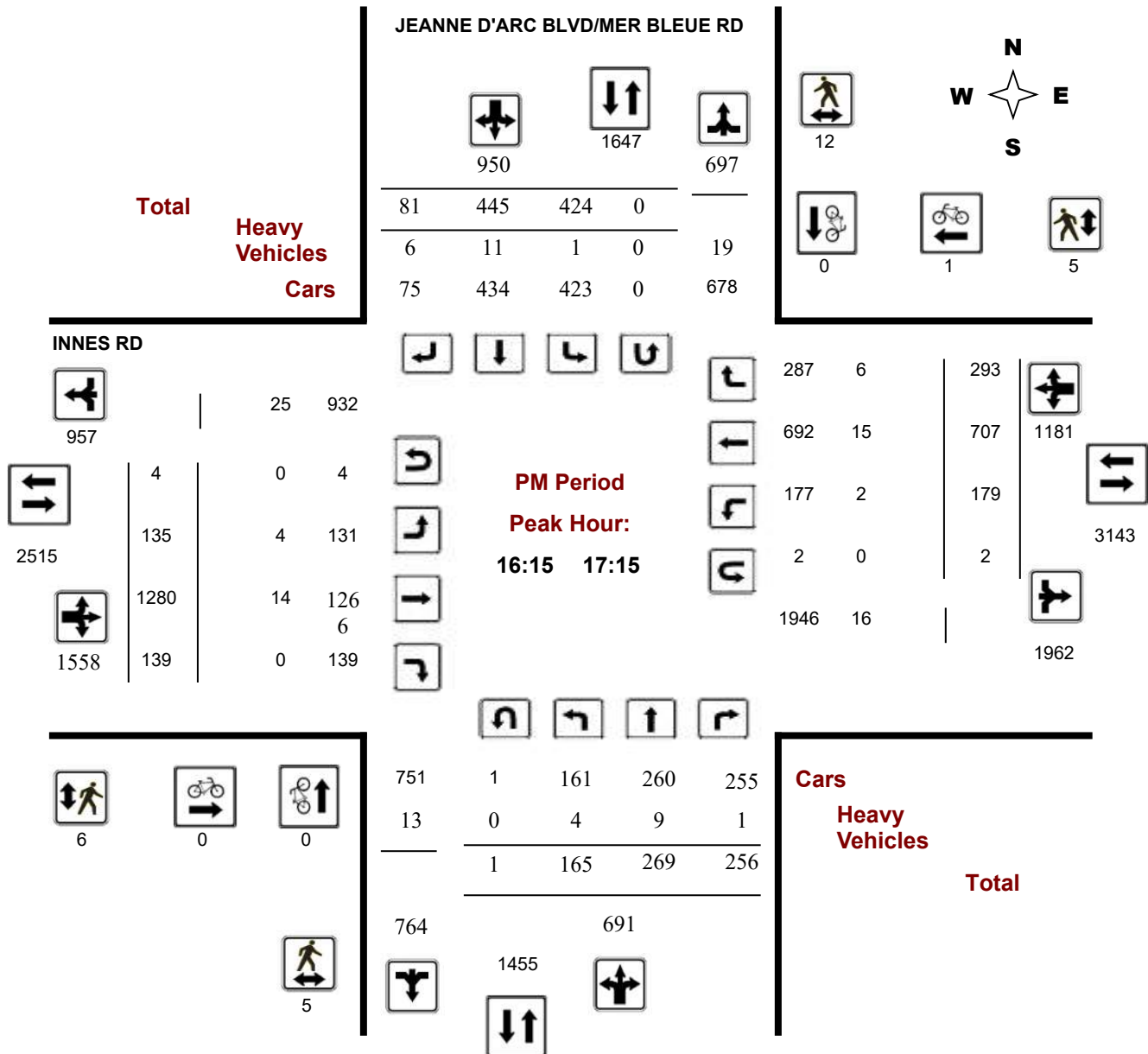
Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



5469225 - THU JAN 09, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, January 09, 2020

Total Observed U-Turns

Northbound: 20 Southbound: 1
Eastbound: 21 Westbound: 5

AADT Factor

1.00

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	111	336	71	518	142	142	52	336	854	35	327	64	426	190	1148	520	1858	2284	3138
08:00 09:00	121	361	63	545	173	168	57	398	943	45	355	64	464	117	911	388	1416	1880	2823
09:00 10:00	94	230	110	434	153	147	63	363	797	53	459	80	592	125	657	236	1018	1610	2407
11:30 12:30	127	171	182	480	244	226	92	562	1042	94	791	109	994	164	737	243	1144	2138	3180
12:30 13:30	127	166	167	460	253	198	81	532	992	104	803	105	1012	194	748	262	1204	2216	3208
15:00 16:00	152	270	231	653	412	398	92	902	1555	107	1156	129	1392	175	730	278	1183	2575	4130
16:00 17:00	163	259	245	667	427	435	94	956	1623	135	1255	137	1527	168	713	308	1189	2716	4339
17:00 18:00	171	259	212	642	374	429	84	887	1529	120	1205	158	1483	183	696	259	1138	2621	4150
Sub Total	1066	2052	1281	4399	2178	2143	615	4936	9335	693	6351	846	7890	1316	6340	2494	10150	18040	27375
U Turns				20				1	21				21				5	26	47
Total	1066	2052	1281	4419	2178	2143	615	4937	9356	693	6351	846	7911	1316	6340	2494	10155	18066	27422
EQ 12Hr	1482	2852	1781	6142	3027	2979	855	6862	13005	963	8828	1176	10996	1829	8813	3467	14115	25112	38117
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																			1.39
AVG 12Hr	1482	2852	1781	6142	3027	3902	1120	6862	13005	963	8828	1176	10996	1829	8813	3467	14115	25112	38117
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																			1.00
AVG 24Hr	1941	3736	2333	8046	3965	5112	1467	8989	17037	1262	11565	1541	14405	2396	11545	4542	18491	32897	49933
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.																			1.31
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.																			



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	29	84	6	119	21	29	14	64	183	14	53	16	83	34	295	129	458	541	724
07:15 07:30	24	82	16	123	28	37	16	81	204	8	91	15	114	37	348	155	540	654	858
07:30 07:45	30	92	20	142	39	48	11	98	240	4	94	21	120	65	245	123	433	553	793
07:45 08:00	28	78	29	137	54	28	11	93	230	9	89	12	110	54	260	113	427	537	767
08:00 08:15	20	90	17	128	33	42	12	87	215	8	71	21	100	32	218	109	360	460	675
08:15 08:30	29	79	13	121	49	44	12	105	226	12	90	18	120	32	265	105	402	522	748
08:30 08:45	36	104	14	154	40	50	14	104	258	9	80	13	102	24	219	98	341	443	701
08:45 09:00	36	88	19	143	51	32	19	102	245	16	114	12	142	29	209	76	314	456	701
09:00 09:15	27	61	29	121	37	48	15	100	221	13	92	13	118	28	154	60	242	360	581
09:15 09:30	24	69	33	126	50	33	19	102	228	14	122	20	156	31	171	67	269	425	653
09:30 09:45	26	40	26	92	31	34	16	81	173	11	115	24	150	31	178	63	272	422	595
09:45 10:00	17	60	22	100	35	32	13	80	180	15	130	23	168	35	154	46	235	403	583
11:30 11:45	26	43	51	123	60	62	22	144	267	19	194	32	247	42	189	55	288	535	802
11:45 12:00	38	52	27	117	61	56	26	143	260	28	171	20	219	39	198	58	295	514	774
12:00 12:15	34	42	50	127	65	55	22	142	269	26	194	33	254	34	171	63	268	522	791
12:15 12:30	29	34	54	117	58	53	22	133	250	21	232	24	277	49	179	67	295	572	822
12:30 12:45	27	51	39	117	73	43	23	139	256	28	197	25	251	48	177	62	287	538	794
12:45 13:00	34	45	39	118	61	57	22	140	258	32	203	24	259	38	172	65	275	534	792
13:00 13:15	33	32	45	112	60	49	16	125	237	18	203	27	249	58	188	62	308	557	794
13:15 13:30	33	38	44	115	59	49	20	128	243	26	200	29	255	50	211	73	334	589	832
15:45 16:00	39	72	61	173	105	117	22	244	417	26	288	23	338	50	194	68	312	650	1067
17:30 17:45	40	63	44	148	103	115	20	238	386	27	321	43	392	41	171	54	266	658	1044
17:45 18:00	41	74	51	168	84	87	23	195	363	28	270	36	336	49	165	63	277	613	976
15:00 15:15	30	75	59	164	99	89	22	210	374	23	268	40	331	46	164	67	277	608	982
15:15 15:30	41	69	58	168	113	103	31	247	415	26	303	30	360	41	196	69	306	666	1081
15:30 15:45	42	54	53	149	95	89	17	201	350	32	297	36	366	38	176	74	288	654	1004
16:00 16:15	50	52	57	159	106	94	36	236	395	30	276	40	350	37	186	77	300	650	1045
16:15 16:30	38	59	56	153	110	120	15	245	398	36	337	32	406	49	173	71	294	700	1098
16:30 16:45	35	74	62	171	95	107	19	221	392	30	312	28	370	38	187	84	309	679	1071
16:45 17:00	40	74	70	184	116	114	24	254	438	39	330	37	407	44	167	76	288	695	1133
17:00 17:15	52	62	68	183	103	104	23	230	413	30	301	42	375	48	180	62	290	665	1078
17:15 17:30	38	60	49	147	84	123	18	225	372	35	313	37	386	45	180	80	305	691	1063
Total:	1066	2052	1281	4419	2178	2143	615	4937	9356	693	6351	846	7911	1316	6340	2494	10155	18066	27,422

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cycliste volumes reffer to Cyclist Volume report.

5469225 - THU JAN 09, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	1	0	1	1
08:15	08:30	0	0	0	0	1	1	1
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	2	0	2	2
09:15	09:30	1	0	1	1	0	1	2
09:30	09:45	0	0	0	1	0	1	1
09:45	10:00	0	0	0	2	0	2	2
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	1	1	1
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
Total		1	0	1	7	2	9	10



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

JEANNE D'ARC BLVD/MER BLEUE
RD

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	1	0	1	1
07:15 07:30	0	4	4	0	1	1	5
07:30 07:45	0	1	1	0	1	1	2
07:45 08:00	1	2	3	2	1	3	6
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	1	1	1	0	1	2
08:30 08:45	1	8	9	1	7	8	17
08:45 09:00	0	0	0	1	0	1	1
09:00 09:15	1	3	4	2	0	2	6
09:15 09:30	0	1	1	0	0	0	1
09:30 09:45	1	2	3	1	0	1	4
09:45 10:00	0	3	3	3	1	4	7
11:30 11:45	1	4	5	1	2	3	8
11:45 12:00	1	0	1	1	2	3	4
12:00 12:15	2	1	3	1	0	1	4
12:15 12:30	1	1	2	1	0	1	3
12:30 12:45	1	2	3	1	1	2	5
12:45 13:00	1	2	3	2	2	4	7
13:00 13:15	3	8	11	4	3	7	18
13:15 13:30	1	2	3	2	1	3	6
15:45 16:00	2	12	14	1	0	1	15
17:30 17:45	3	2	5	3	1	4	9
17:45 18:00	1	1	2	0	0	0	2
15:00 15:15	2	1	3	0	4	4	7
15:15 15:30	1	4	5	0	1	1	6
15:30 15:45	1	3	4	2	2	4	8
16:00 16:15	2	1	3	0	3	3	6
16:15 16:30	2	6	8	4	3	7	15
16:30 16:45	2	3	5	0	1	1	6
16:45 17:00	1	2	3	0	1	1	4
17:00 17:15	0	1	1	2	0	2	3
17:15 17:30	2	3	5	3	2	5	10
Total	34	84	118	40	40	80	198

5469225 - THU JAN 09, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
07:00	07:15	0	3	0	3	0	2	0	2	5	2	8	1	11	0	7	6	13	24	29
07:15	07:30	1	4	0	5	2	5	2	9	14	2	16	1	19	0	6	0	6	25	39
07:30	07:45	2	7	2	11	2	7	0	9	20	1	12	1	14	1	5	1	7	21	41
07:45	08:00	2	5	0	7	6	4	1	11	18	2	6	0	8	0	10	3	13	21	39
08:00	08:15	1	5	2	8	1	3	0	4	12	1	7	0	8	0	9	2	11	19	31
08:15	08:30	0	6	0	6	1	4	3	8	14	1	7	1	9	2	11	1	14	23	37
08:30	08:45	0	3	0	3	2	3	1	6	9	1	12	0	13	0	9	4	13	26	35
08:45	09:00	1	3	0	4	1	5	1	7	11	1	7	0	8	0	10	1	11	19	30
09:00	09:15	0	7	0	7	3	3	3	9	16	0	8	1	9	0	6	5	11	20	36
09:15	09:30	0	3	0	3	1	3	3	7	10	1	12	0	13	0	4	1	5	18	28
09:30	09:45	1	3	2	6	3	2	0	5	11	0	7	2	9	0	2	4	6	15	26
09:45	10:00	0	2	1	3	1	0	2	3	6	3	3	2	8	2	4	0	6	14	20
11:30	11:45	0	1	1	2	2	5	0	7	9	0	5	2	7	0	4	0	4	11	20
11:45	12:00	2	7	2	11	1	1	1	3	14	1	3	0	4	1	8	0	9	13	27
12:00	12:15	0	1	0	1	2	3	0	5	6	0	4	0	4	0	4	3	7	11	17
12:15	12:30	0	0	2	2	2	2	1	5	7	1	7	3	11	2	4	0	6	17	24
12:30	12:45	1	3	0	4	0	1	0	1	5	0	3	2	5	0	3	1	4	9	14
12:45	13:00	1	0	0	1	1	2	1	4	5	1	4	0	5	1	3	2	6	11	16
13:00	13:15	2	3	0	5	0	3	0	3	8	1	7	0	8	0	4	2	6	14	22
13:15	13:30	1	1	1	3	0	1	1	2	5	2	5	2	9	1	3	0	4	13	18
15:45	16:00	0	3	0	3	0	7	0	7	10	3	7	0	10	0	6	1	7	17	27
17:30	17:45	1	2	0	3	0	1	0	1	4	0	5	0	5	0	2	0	2	7	11
17:45	18:00	0	1	1	2	0	2	1	3	5	1	2	0	3	0	3	3	6	9	14
15:00	15:15	0	1	3	4	0	4	0	4	8	0	2	1	3	2	5	3	10	13	21
15:15	15:30	1	5	2	8	0	3	2	5	13	1	4	1	6	0	6	2	8	14	27
15:30	15:45	1	2	0	3	0	2	1	3	6	0	3	0	3	1	4	3	8	11	17
16:00	16:15	3	1	0	4	0	3	1	4	8	1	5	2	8	0	6	1	7	15	23
16:15	16:30	1	3	0	4	1	4	3	8	12	1	3	0	4	1	5	2	8	12	24
16:30	16:45	2	2	1	5	0	3	1	4	9	0	3	0	3	0	4	2	6	9	18
16:45	17:00	0	3	0	3	0	2	2	4	7	2	2	0	4	1	3	0	4	8	15
17:00	17:15	1	1	0	2	0	2	0	2	4	1	6	0	7	0	3	2	5	12	16
17:15	17:30	0	0	0	0	1	2	1	4	4	1	1	0	2	0	4	1	5	7	11
Total:	None	25	91	20	136	33	94	32	159	295	32	186	22	240	15	167	56	238	478	773

Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Thursday, January 09, 2020

WO No: 39284

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

JEANNE D'ARC BLVD/MER BLEUE

INNES RD

Time Period		RD Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	1	0	0	0	1
07:30	07:45	0	0	1	0	1
07:45	08:00	2	0	0	0	2
08:00	08:15	1	0	0	1	2
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	4	0	0	0	4
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	1	0	0	0	1
11:30	11:45	3	0	2	2	7
11:45	12:00	0	0	0	0	0
12:00	12:15	1	0	1	0	2
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	1	0	1
12:45	13:00	0	0	0	0	0
13:00	13:15	2	0	1	0	3
13:15	13:30	0	0	0	0	0
15:45	16:00	1	0	1	0	2
17:30	17:45	1	0	1	0	2
17:45	18:00	2	1	2	0	5
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	1	0	1
15:30	15:45	0	0	1	0	1
16:00	16:15	0	0	4	0	4
16:15	16:30	0	0	1	1	2
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	1	1	2
17:00	17:15	1	0	2	0	3
17:15	17:30	0	0	1	0	1
Total		20	1	21	5	47

Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

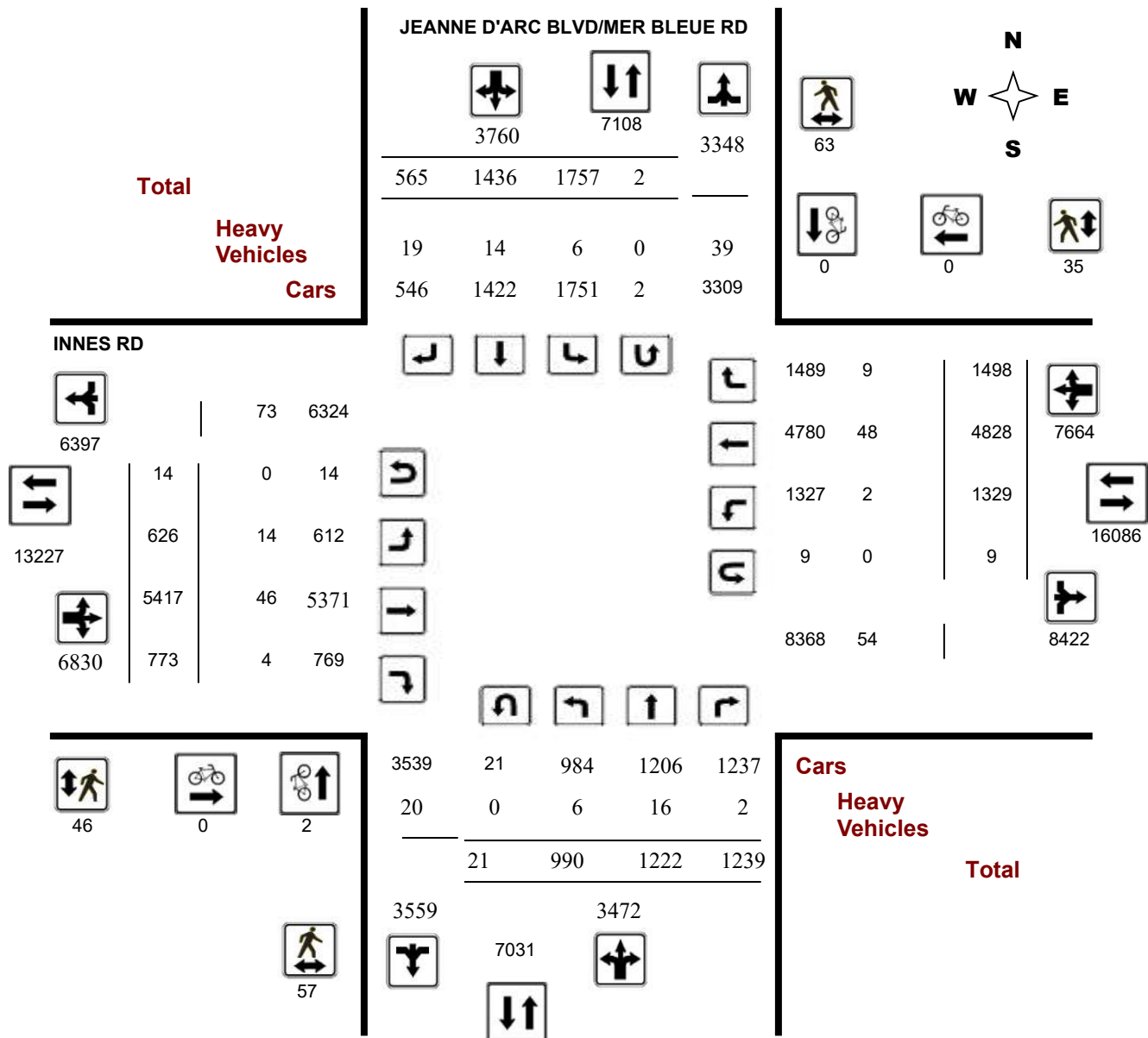
Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study Diagram



5469229 - SAT JAN 11, 2020 - 5HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

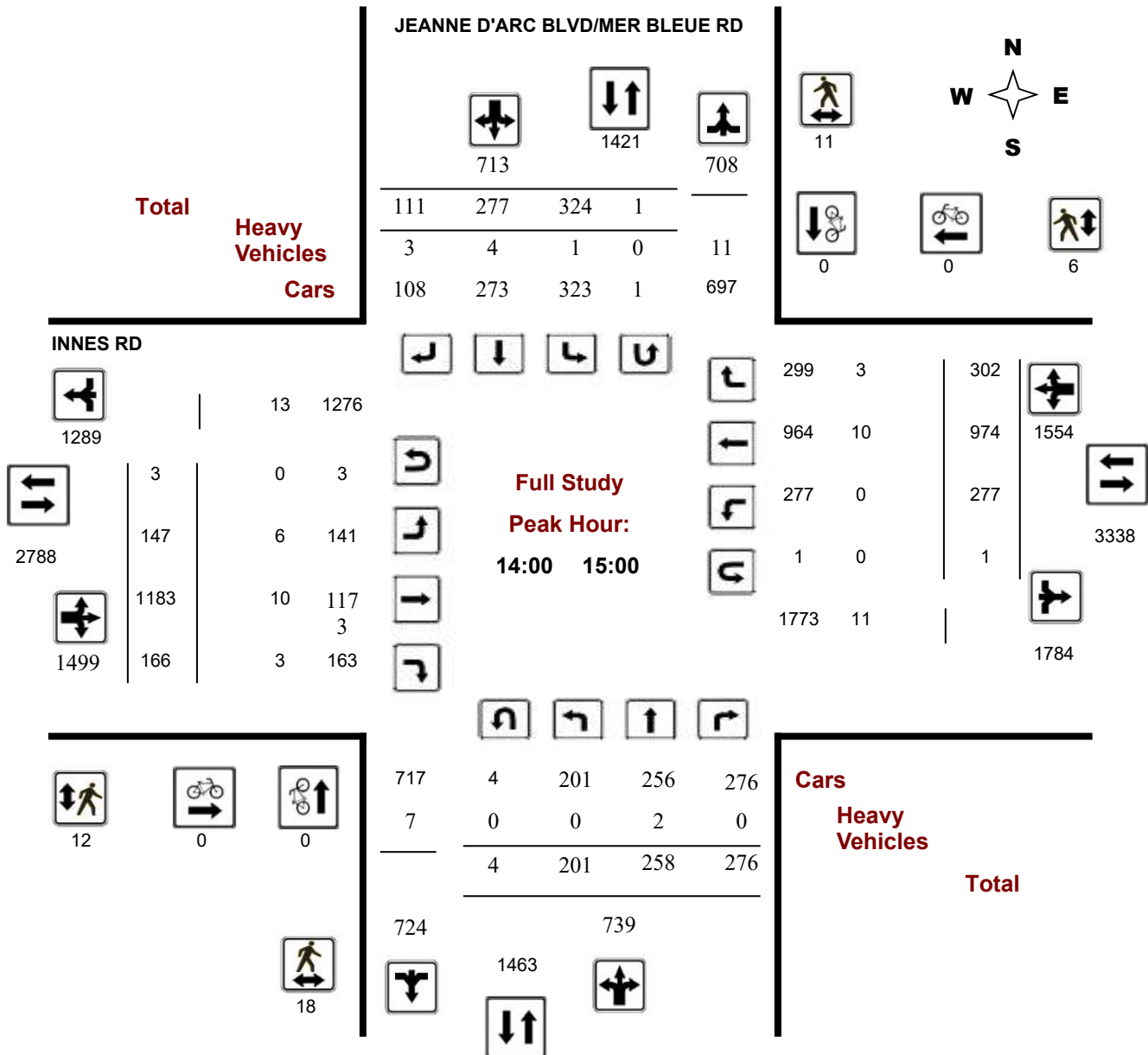
Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study Summary (5 HR)

Survey Date: Saturday, February 01, 2020

Total Observed U-Turns

AADT Factor

Northbound: 21 Southbound: 2
Eastbound: 14 Westbound: 9

.00

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
11:00 12:00	204	238	206	648		354	285	110	749	1397	97	985	154	1236		241	987	299	1527	2763	4160
12:00 13:00	199	276	235	710		336	289	125	750	1460	124	1080	144	1348		246	964	298	1508	2856	4316
13:00 14:00	211	228	277	716		378	311	123	812	1528	132	1070	159	1361		295	915	294	1504	2865	4393
14:00 15:00	201	258	276	735		324	277	111	712	1447	147	1183	166	1496		277	974	302	1553	3049	4496
15:00 16:00	175	222	245	642		365	274	96	735	1377	126	1099	150	1375		270	988	305	1563	2938	4315
Sub Total	990	1222	1239	3451		1757	1436	565	3758	7209	626	5417	773	6816		1329	4828	1498	7655	14471	21680
U Turns				21					2	23				14					9	23	46
Total	990	1222	1239	3472		1757	1436	565	3760	7232	626	5417	773	6830		1329	4828	1498	7664	14494	21726
EQ 12Hr	1376	1699	1722	4826		2442	1996	785	5226	10052	870	7530	1074	9494		1847	6711	2082	10653	20147	30199

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr 0

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.00

AVG 24Hr 0

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study 15 Minute Increments

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
11:00	11:15	50	60	50	161	79	80	24	183	344	22	227	34	283	63	248	62	373	656	1000
11:15	11:30	49	52	49	151	100	67	29	196	347	23	245	44	312	69	250	83	403	715	1062
11:30	11:45	48	59	51	161	82	73	27	182	343	30	247	33	311	56	237	69	362	673	1016
12:45	13:00	56	70	48	176	76	69	33	178	354	30	287	36	353	59	221	70	350	703	1057
14:30	14:45	51	53	63	167	83	59	27	169	336	33	291	40	366	62	235	63	360	726	1062
15:45	16:00	51	45	63	159	101	66	22	189	348	36	256	45	338	63	273	83	421	759	1107
11:45	12:00	57	67	56	182	93	65	30	189	371	22	266	43	332	53	252	85	390	722	1093
12:00	12:15	52	63	56	171	86	75	26	187	358	38	262	35	335	69	268	84	421	756	1114
12:15	12:30	42	79	66	188	87	65	32	184	372	27	254	33	314	57	239	69	365	679	1051
12:30	12:45	49	64	65	180	87	80	34	201	381	29	277	40	349	61	236	75	373	722	1103
13:00	13:15	52	54	78	186	86	81	30	197	383	35	261	33	329	75	255	71	401	730	1113
13:15	13:30	55	62	59	176	94	69	32	195	371	36	279	50	367	77	209	77	364	731	1102
13:30	13:45	55	61	75	192	103	83	28	214	406	32	272	33	337	62	211	74	348	685	1091
13:45	14:00	49	51	65	165	95	78	33	206	371	29	258	43	331	81	240	72	393	724	1095
14:00	14:15	52	69	62	185	78	78	29	186	371	32	282	38	352	68	239	83	390	742	1113
14:15	14:30	38	68	77	185	80	82	29	191	376	41	299	48	389	69	272	84	425	814	1190
14:45	15:00	60	68	74	202	83	58	26	167	369	41	311	40	392	78	228	72	379	771	1140
15:00	15:15	34	62	53	150	96	61	23	180	330	23	283	33	340	63	264	76	403	743	1073
15:15	15:30	39	59	65	163	80	80	25	185	348	28	291	42	361	77	208	83	370	731	1079
15:30	15:45	51	56	64	172	88	67	26	181	353	39	269	30	339	67	243	63	373	712	1065
Total:		990	1222	1239	3472	1757	1436	565	3760	7232	626	5417	773	6830	1329	4828	1498	7664	14494	21,726

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cycliste volumes reffer to Cyclist Volume report. **5469229 - SAT JAN 11, 2020 - 5HRS - LORETTA**



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study Cyclist Volume

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
11:00	11:15	0	0	0	0	0	0	0
11:15	11:30	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
11:45	12:00	1	0	1	0	0	0	1
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
13:00	13:15	1	0	1	0	0	0	1
13:15	13:30	0	0	0	0	0	0	0
13:30	13:45	0	0	0	0	0	0	0
13:45	14:00	0	0	0	0	0	0	0
14:00	14:15	0	0	0	0	0	0	0
14:15	14:30	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
Total		2	0	2	0	0	0	2



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study Pedestrian Volume

JEANNE D'ARC BLVD/MER BLEUE
RD

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
11:00 11:15	1	2	3	3	1	4	7
11:15 11:30	2	2	4	3	1	4	8
11:30 11:45	2	2	4	5	1	6	10
12:45 13:00	3	4	7	2	1	3	10
14:30 14:45	7	1	8	0	1	1	9
15:45 16:00	1	3	4	0	2	2	6
11:45 12:00	1	1	2	4	0	4	6
12:00 12:15	7	5	12	2	7	9	21
12:15 12:30	1	4	5	2	1	3	8
12:30 12:45	0	5	5	3	0	3	8
13:00 13:15	0	6	6	1	4	5	11
13:15 13:30	3	1	4	2	1	3	7
13:30 13:45	4	3	7	1	2	3	10
13:45 14:00	0	1	1	1	1	2	3
14:00 14:15	5	8	13	6	3	9	22
14:15 14:30	1	0	1	1	0	1	2
14:45 15:00	5	2	7	5	2	7	14
15:00 15:15	6	7	13	0	4	4	17
15:15 15:30	3	4	7	1	0	1	8
15:30 15:45	5	2	7	4	3	7	14
Total	57	63	120	46	35	81	201

5469229 - SAT JAN 11, 2020 - 5HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study Heavy Vehicles

JEANNE D'ARC BLVD/MER BLEUE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
11:00	11:15	0	1	0	1	0	1	1	2	3	1	4	0	5	0	1	0	1	6	9
11:15	11:30	0	1	0	1	0	0	0	0	1	0	2	0	2	0	3	2	5	7	8
11:30	11:45	0	1	0	1	0	1	1	2	3	2	3	0	5	0	3	0	3	8	11
12:45	13:00	2	0	0	2	0	0	1	1	3	0	3	0	3	0	5	1	6	9	12
14:30	14:45	0	1	0	1	0	1	1	2	3	3	3	0	6	0	3	0	3	9	12
15:45	16:00	1	1	0	2	0	0	2	2	4	0	1	0	1	0	2	0	2	3	7
11:45	12:00	0	1	1	2	2	0	0	2	4	0	1	0	1	0	1	1	2	3	7
12:00	12:15	0	0	0	0	0	1	1	2	2	1	2	1	4	1	1	0	2	6	8
12:15	12:30	0	1	0	1	1	0	0	1	2	0	3	0	3	0	2	1	3	6	8
12:30	12:45	0	1	1	2	1	1	1	3	5	1	1	0	2	0	2	0	2	4	9
13:00	13:15	0	2	0	2	0	1	1	2	4	1	1	0	2	0	3	0	3	5	9
13:15	13:30	0	1	0	1	0	0	1	1	2	0	1	0	1	1	1	0	2	3	5
13:30	13:45	1	2	0	3	1	1	1	3	6	1	3	0	4	0	2	1	3	7	13
13:45	14:00	1	0	0	1	0	1	0	1	2	0	2	0	2	0	2	0	2	4	6
14:00	14:15	0	1	0	1	0	2	1	3	4	1	1	0	2	0	1	1	2	4	8
14:15	14:30	0	0	0	0	0	1	0	1	1	1	4	2	7	0	3	2	5	12	13
14:45	15:00	0	0	0	0	1	0	1	2	2	1	2	1	4	0	3	0	3	7	9
15:00	15:15	0	1	0	1	0	1	1	2	3	0	1	0	1	0	2	0	2	3	6
15:15	15:30	0	0	0	0	0	1	1	2	2	0	3	0	3	0	4	0	4	7	9
15:30	15:45	1	1	0	2	0	1	4	5	7	1	5	0	6	0	4	0	4	10	17
Total:	None	6	16	2	24	6	14	19	39	63	14	46	4	64	2	48	9	59	123	186



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ JEANNE D'ARC BLVD/MER BLEUE RD

Survey Date: Saturday, February 01, 2020

WO No: 39287

Start Time: 11:00

Device: Miovision

Full Study 15 Minute U-Turn Total

		JEANNE D'ARC BLVD/MER BLEUE RD		INNES RD		Total
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	
11:00	11:15	1	0	0	0	1
11:15	11:30	1	0	0	1	2
11:30	11:45	3	0	1	0	4
12:45	13:00	2	0	0	0	2
14:30	14:45	0	0	2	0	2
15:45	16:00	0	0	1	2	3
11:45	12:00	2	1	1	0	4
12:00	12:15	0	0	0	0	0
12:15	12:30	1	0	0	0	1
12:30	12:45	2	0	3	1	6
13:00	13:15	2	0	0	0	2
13:15	13:30	0	0	2	1	3
13:30	13:45	1	0	0	1	2
13:45	14:00	0	0	1	0	1
14:00	14:15	2	1	0	0	3
14:15	14:30	2	0	1	0	3
14:45	15:00	0	0	0	1	1
15:00	15:15	1	0	1	0	2
15:15	15:30	0	0	0	2	2
15:30	15:45	1	0	1	0	2
Total		21	2	14	9	46

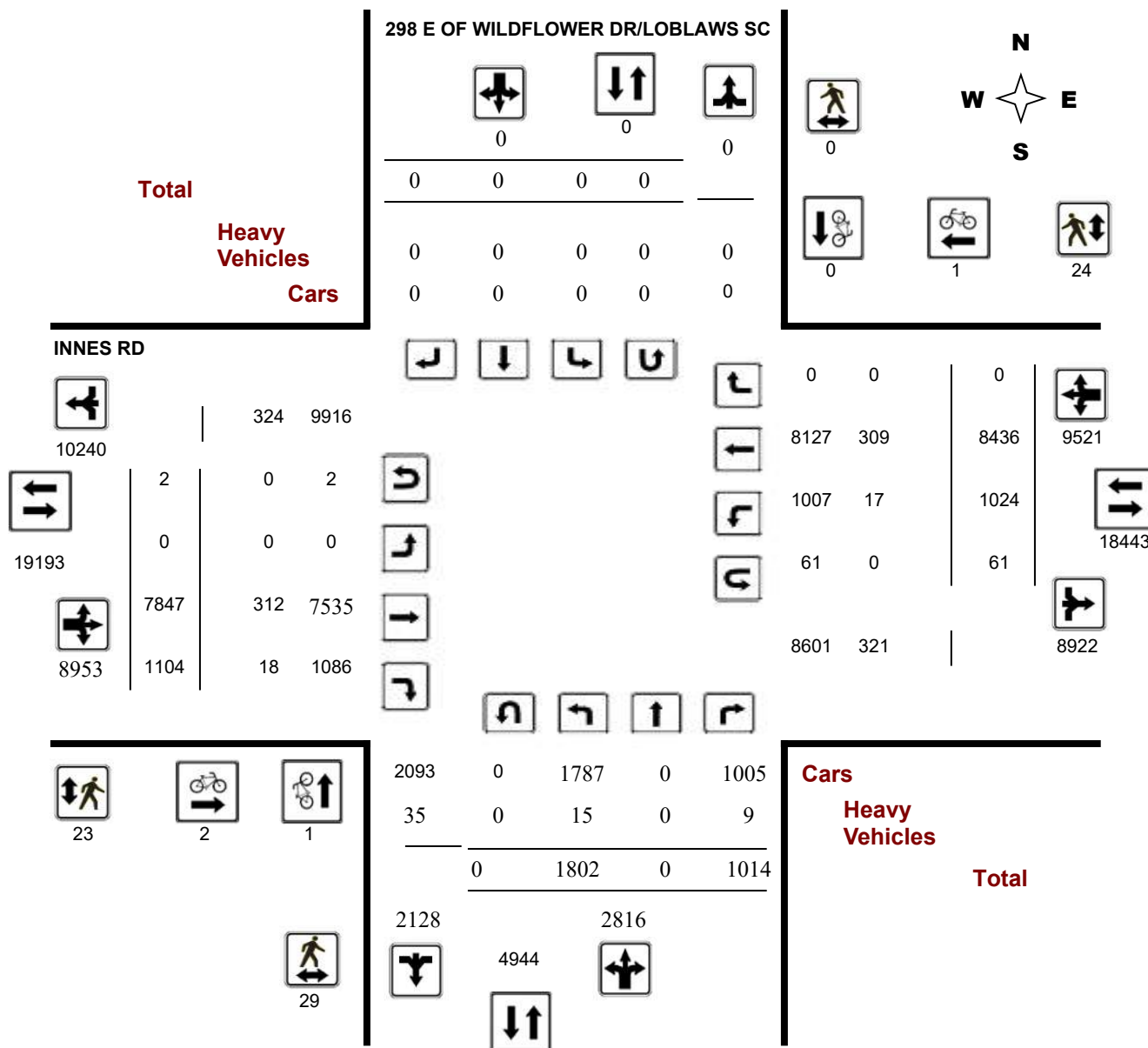
Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study Diagram



5474759 - FEB 20, 2020 - 8HRS - LORETTA

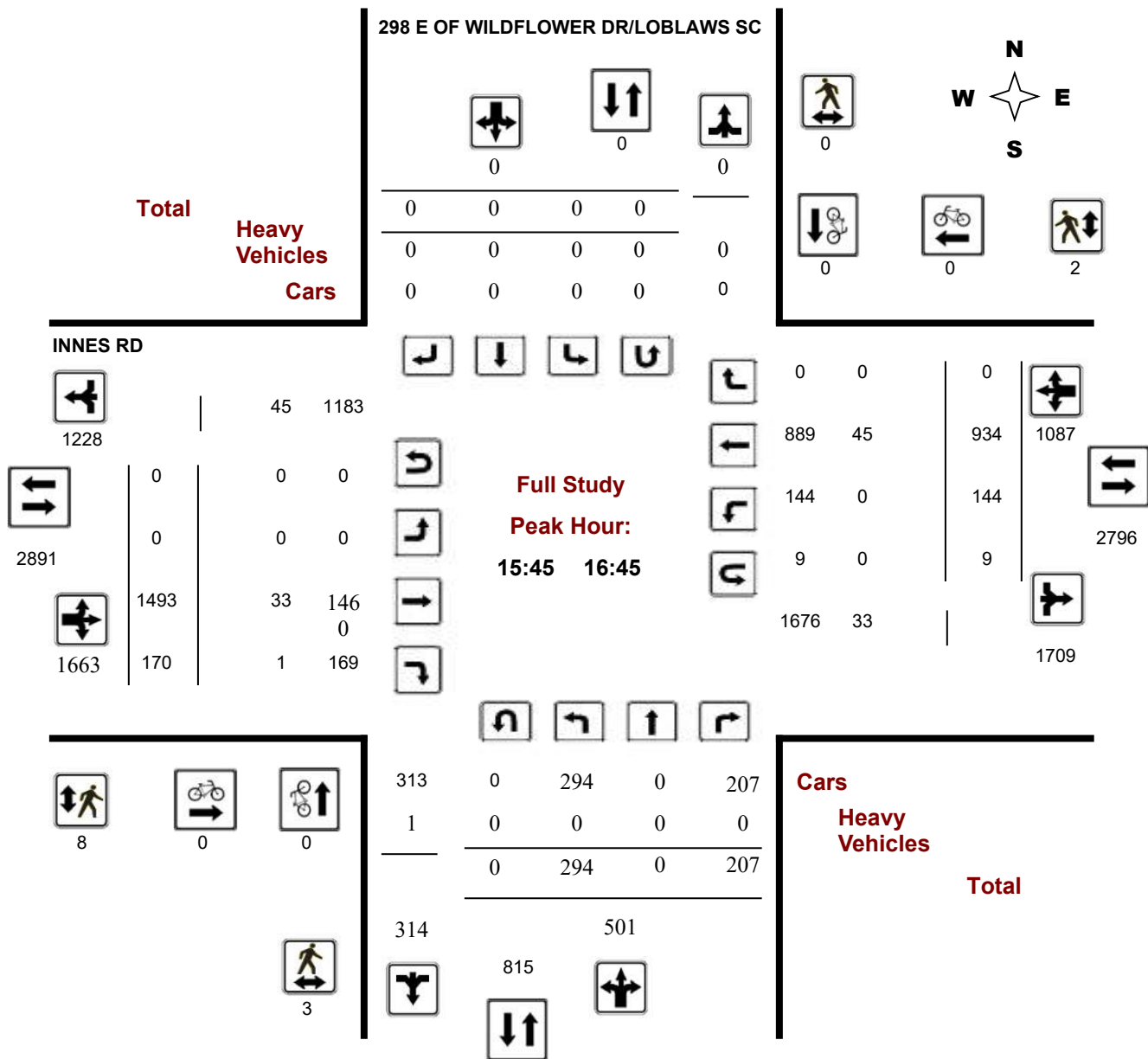
Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



5474759 - FEB 20, 2020 - 8HRS - LORETTA

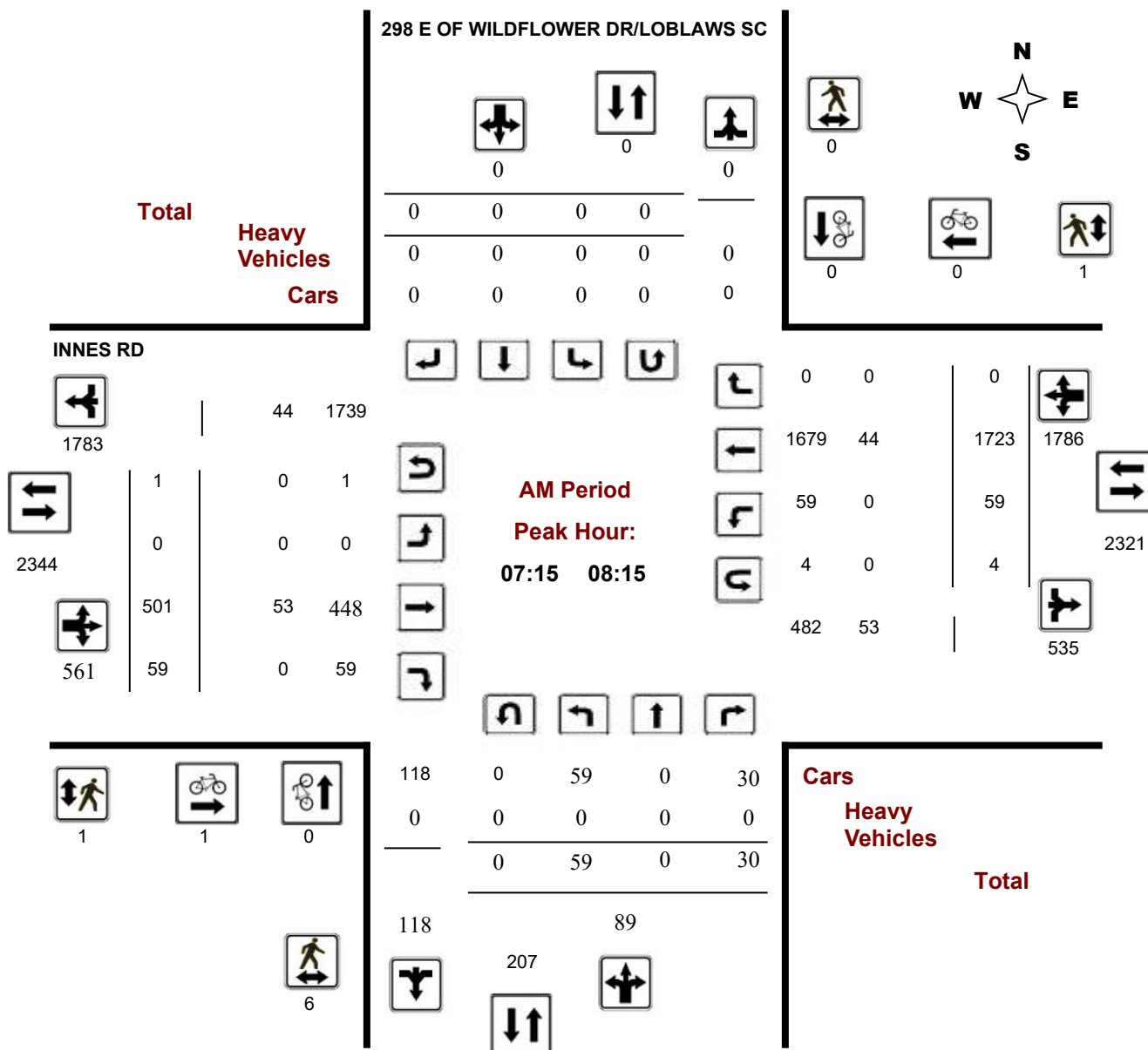
Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



5474759 - FEB 20, 2020 - 8HRS - LORETTA

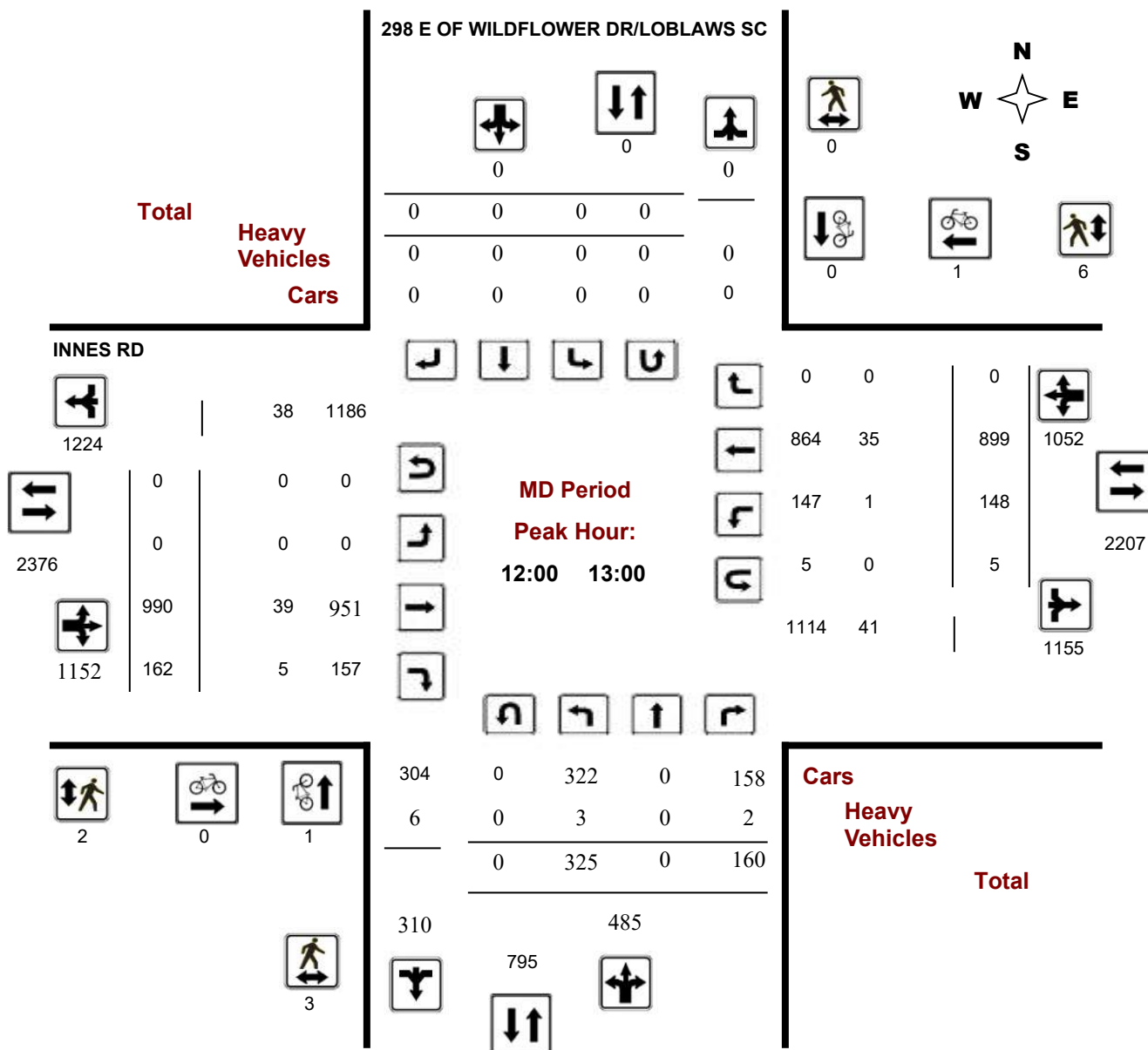
Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



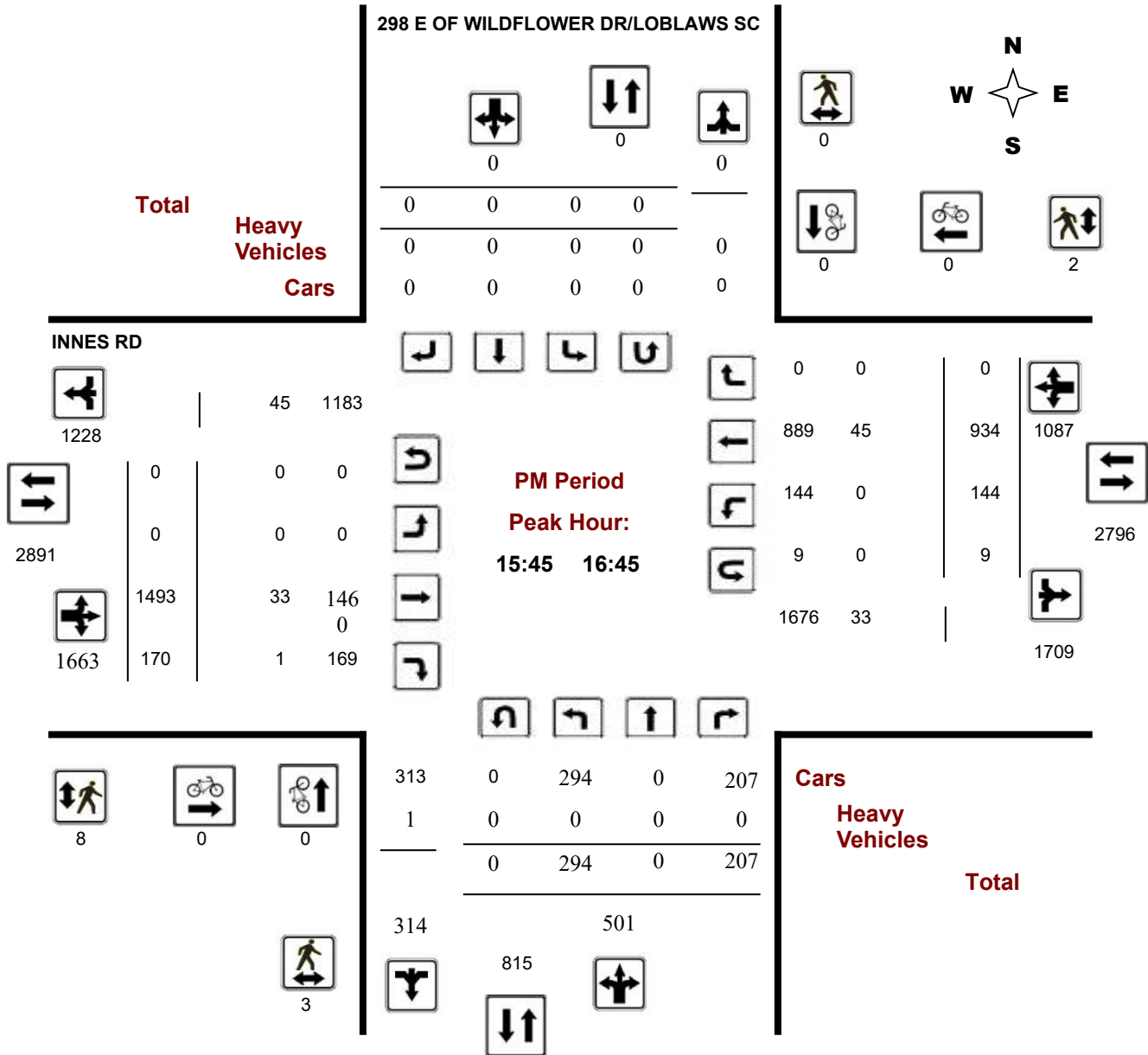
Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram



5474759 - FEB 20, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, February 20, 2020

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0
Eastbound: 2 Westbound: 61
.90

298 E OF WILDFLOWER DR/LOBLAWS SC

INNES RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	54	0	23	77		0	0	0	0	77	0	465	53	518		52	1731	0	1783	2301	2378
08:00 09:00	63	0	29	92		0	0	0	0	92	0	572	67	639		67	1301	0	1368	2007	2099
09:00 10:00	156	0	65	221		0	0	0	0	221	0	639	124	763		125	902	0	1027	1790	2011
11:30 12:30	318	0	170	488		0	0	0	0	488	0	902	168	1070		174	940	0	1114	2184	2672
12:30 13:30	282	0	168	450		0	0	0	0	450	0	999	164	1163		136	854	0	990	2153	2603
15:00 16:00	304	0	211	515		0	0	0	0	515	0	1325	161	1486		144	931	0	1075	2561	3076
16:00 17:00	304	0	187	491		0	0	0	0	491	0	1497	168	1665		149	911	0	1060	2725	3216
17:00 18:00	321	0	161	482		0	0	0	0	482	0	1448	199	1647		177	866	0	1043	2690	3172
Sub Total	1802	0	1014	2816		0	0	0	0	2816	0	7847	1104	8951		1024	8436	0	9460	18411	21227
U Turns				0					0	0				2					61	63	63
Total	1802	0	1014	2816		0	0	0	0	2816	0	7847	1104	8953		1024	8436	0	9521	18474	21290
EQ 12Hr	2505	0	1409	3914		0	0	0	0	3914	0	10907	1535	12445		1423	11726	0	13234	25679	29593

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	2254	0	1268	3523		0	0	0	0	3523	0	9816	1382	11200		1281	10553	0	11911	23111	26634
-----------------	------	---	------	------	--	---	---	---	---	------	---	------	------	-------	--	------	-------	---	-------	-------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.90

AVG 24Hr	2953	0	1661	4615		0	0	0	0	4615	0	12859	1810	14672		1678	13824	0	15603	30275	34891
-----------------	------	---	------	------	--	---	---	---	---	------	---	-------	------	-------	--	------	-------	---	-------	-------	-------

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

298 E OF WILDFLOWER DR/LOBLAWS SC

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	10	0	1	11	0	0	0	0	11	0	92	10	102	6	394	0	400	502	513
07:15 07:30	12	0	5	17	0	0	0	0	17	0	110	5	116	7	461	0	469	585	602
07:30 07:45	13	0	6	19	0	0	0	0	19	0	124	20	144	15	425	0	442	586	605
17:45 18:00	65	0	49	114	0	0	0	0	114	0	374	61	435	48	201	0	250	685	799
07:45 08:00	19	0	11	30	0	0	0	0	30	0	139	18	157	24	451	0	476	633	663
08:00 08:15	15	0	8	23	0	0	0	0	23	0	128	16	144	13	386	0	399	543	566
08:15 08:30	16	0	7	23	0	0	0	0	23	0	121	21	142	17	337	0	355	497	520
08:30 08:45	14	0	6	20	0	0	0	0	20	0	143	15	158	12	297	0	310	468	488
08:45 09:00	18	0	8	26	0	0	0	0	26	0	180	15	195	25	281	0	307	502	528
09:00 09:15	32	0	5	37	0	0	0	0	37	0	128	28	156	23	257	0	280	436	473
09:15 09:30	30	0	17	47	0	0	0	0	47	0	176	21	197	35	244	0	280	477	524
09:30 09:45	47	0	15	62	0	0	0	0	62	0	155	37	192	27	189	0	218	410	472
09:45 10:00	47	0	28	75	0	0	0	0	75	0	180	38	218	40	212	0	257	475	550
11:30 11:45	70	0	35	105	0	0	0	0	105	0	232	44	276	37	244	0	285	561	666
11:45 12:00	65	0	49	114	0	0	0	0	114	0	214	39	253	58	237	0	298	551	665
12:00 12:15	91	0	43	134	0	0	0	0	134	0	228	45	273	26	234	0	264	537	671
12:15 12:30	92	0	43	135	0	0	0	0	135	0	228	40	268	53	225	0	278	546	681
12:30 12:45	58	0	35	93	0	0	0	0	93	0	269	34	303	43	222	0	266	569	662
12:45 13:00	84	0	39	123	0	0	0	0	123	0	265	43	308	26	218	0	244	552	675
13:00 13:15	74	0	42	116	0	0	0	0	116	0	241	40	281	37	224	0	266	547	663
13:15 13:30	66	0	52	118	0	0	0	0	118	0	224	47	271	30	190	0	223	494	612
15:00 15:15	80	0	49	129	0	0	0	0	129	0	306	29	336	34	220	0	260	596	725
15:15 15:30	82	0	53	135	0	0	0	0	135	0	340	38	378	36	227	0	264	642	777
15:30 15:45	78	0	54	132	0	0	0	0	132	0	316	49	365	34	226	0	260	625	757
15:45 16:00	64	0	55	119	0	0	0	0	119	0	363	45	408	40	258	0	298	706	825
16:00 16:15	64	0	44	108	0	0	0	0	108	0	365	28	393	36	228	0	267	660	768
16:15 16:30	85	0	52	137	0	0	0	0	137	0	396	46	442	35	216	0	255	697	834
16:30 16:45	81	0	56	137	0	0	0	0	137	0	369	51	420	33	232	0	267	687	824
16:45 17:00	74	0	35	109	0	0	0	0	109	0	367	43	410	45	235	0	281	691	800
17:00 17:15	79	0	35	114	0	0	0	0	114	0	386	35	421	36	208	0	245	666	780
17:15 17:30	78	0	39	117	0	0	0	0	117	0	367	49	416	46	235	0	286	702	819
17:30 17:45	99	0	38	137	0	0	0	0	137	0	321	54	375	47	222	0	271	646	783
Total:	1802	0	1014	2816	0	0	0	0	2816	0	7847	1104	8953	1024	8436	0	9521	18474	21,290

Note: U-Turns are included in Totals.

5474759 - FEB 20, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

298 E OF WILDFLOWER DR/LOBLAWS SC

INNES RD

Time Period	Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
17:45 18:00	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	1	0	1	1
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	0	0	0	0	0	0	0
11:45 12:00	0	0	0	0	0	0	0
12:00 12:15	1	0	1	0	1	1	2
12:15 12:30	0	0	0	0	0	0	0
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	0	0	0	0	0	0	0
13:00 13:15	0	0	0	0	0	0	0
13:15 13:30	0	0	0	0	0	0	0
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	0	0	0	0	0	0	0
15:30 15:45	0	0	0	0	0	0	0
15:45 16:00	0	0	0	0	0	0	0
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	0	0	0	0	0	0	0
16:30 16:45	0	0	0	0	0	0	0
16:45 17:00	0	0	0	0	0	0	0
17:00 17:15	0	0	0	0	0	0	0
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	0	0	0	1	0	1	1
Total	1	0	1	2	1	3	4



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

298 E OF WILDFLOWER
DR/LOBLAWS SC

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	1	0	1	0	0	0	1
07:30 07:45	0	0	0	0	0	0	0
17:45 18:00	1	0	1	0	0	0	1
07:45 08:00	4	0	4	0	1	1	5
08:00 08:15	1	0	1	1	0	1	2
08:15 08:30	2	0	2	1	1	2	4
08:30 08:45	2	0	2	1	0	1	3
08:45 09:00	1	0	1	0	0	0	1
09:00 09:15	0	0	0	0	1	1	1
09:15 09:30	1	0	1	2	1	3	4
09:30 09:45	1	0	1	0	1	1	2
09:45 10:00	0	0	0	0	0	0	0
11:30 11:45	1	0	1	0	0	0	1
11:45 12:00	0	0	0	0	2	2	2
12:00 12:15	1	0	1	0	3	3	4
12:15 12:30	1	0	1	1	1	2	3
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	1	0	1	1	2	3	4
13:00 13:15	1	0	1	1	0	1	2
13:15 13:30	1	0	1	0	0	0	1
15:00 15:15	0	0	0	0	0	0	0
15:15 15:30	2	0	2	0	1	1	3
15:30 15:45	1	0	1	0	4	4	5
15:45 16:00	1	0	1	3	1	4	5
16:00 16:15	2	0	2	3	1	4	6
16:15 16:30	0	0	0	1	0	1	1
16:30 16:45	0	0	0	1	0	1	1
16:45 17:00	1	0	1	4	0	4	5
17:00 17:15	0	0	0	1	3	4	4
17:15 17:30	0	0	0	1	1	2	2
17:30 17:45	2	0	2	1	0	1	3
Total	29	0	29	23	24	47	76

5474759 - FEB 20, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

**298 E OF WILDFLOWER
DR/LOBLAWS SC**

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			Southbound			Eastbound			Westbound			Grand Total						
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	0	0	0	0	0	0	0	10	0	10	0	9	0	9	19	19
07:15	07:30	0	0	0	0	0	0	0	0	0	0	15	0	15	0	10	0	10	25	25
07:30	07:45	0	0	0	0	0	0	0	0	0	0	20	0	20	0	9	0	9	29	29
17:45	18:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	5	0	5	9	9
07:45	08:00	0	0	0	0	0	0	0	0	0	0	5	0	5	0	13	0	13	18	18
08:00	08:15	0	0	0	0	0	0	0	0	0	0	13	0	13	0	12	0	12	25	25
08:15	08:30	0	0	0	0	0	0	0	0	0	0	10	3	13	0	17	0	17	30	30
08:30	08:45	1	0	0	1	0	0	0	0	1	0	9	0	9	1	13	0	14	23	24
08:45	09:00	0	0	2	2	0	0	0	0	2	0	12	0	12	0	14	0	14	26	28
09:00	09:15	0	0	0	0	0	0	0	0	0	0	10	1	11	0	15	0	15	26	26
09:15	09:30	0	0	1	1	0	0	0	0	1	0	14	0	14	1	11	0	12	26	27
09:30	09:45	1	0	0	1	0	0	0	0	1	0	16	2	18	3	5	0	8	26	27
09:45	10:00	3	0	0	3	0	0	0	0	3	0	7	2	9	2	10	0	12	21	24
11:30	11:45	1	0	0	1	0	0	0	0	1	0	11	1	12	1	12	0	13	25	26
11:45	12:00	0	0	1	1	0	0	0	0	1	0	8	1	9	0	10	0	10	19	20
12:00	12:15	2	0	0	2	0	0	0	0	2	0	11	2	13	1	8	0	9	22	24
12:15	12:30	0	0	1	1	0	0	0	0	1	0	3	2	5	0	7	0	7	12	13
12:30	12:45	1	0	0	1	0	0	0	0	1	0	15	0	15	0	12	0	12	27	28
12:45	13:00	0	0	1	1	0	0	0	0	1	0	10	1	11	0	8	0	8	19	20
13:00	13:15	0	0	1	1	0	0	0	0	1	0	12	0	12	2	11	0	13	25	26
13:15	13:30	2	0	0	2	0	0	0	0	2	0	12	0	12	1	5	0	6	18	20
15:00	15:15	0	0	0	0	0	0	0	0	0	0	12	1	13	0	10	0	10	23	23
15:15	15:30	2	0	0	2	0	0	0	0	2	0	10	1	11	1	11	0	12	23	25
15:30	15:45	0	0	1	1	0	0	0	0	1	0	6	0	6	0	10	0	10	16	17
15:45	16:00	0	0	0	0	0	0	0	0	0	0	6	0	6	0	18	0	18	24	24
16:00	16:15	0	0	0	0	0	0	0	0	0	0	13	0	13	0	10	0	10	23	23
16:15	16:30	0	0	0	0	0	0	0	0	0	0	7	1	8	0	9	0	9	17	17
16:30	16:45	0	0	0	0	0	0	0	0	0	0	7	0	7	0	8	0	8	15	15
16:45	17:00	0	0	0	0	0	0	0	0	0	0	7	0	7	2	4	0	6	13	13
17:00	17:15	1	0	0	1	0	0	0	0	1	0	6	0	6	0	5	0	5	11	12
17:15	17:30	1	0	0	1	0	0	0	0	1	0	5	0	5	1	3	0	4	9	10
17:30	17:45	0	0	1	1	0	0	0	0	1	0	6	0	6	1	5	0	6	12	13
Total:	None	15	0	9	24	0	0	0	0	24	0	312	18	330	17	309	0	326	656	680



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Thursday, February 20, 2020

WO No: 39518

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

		298 E OF WILDFLOWER DR/LOBLAWS SC		INNES RD		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	1	1	2
07:30	07:45	0	0	0	2	2
17:45	18:00	0	0	0	1	1
07:45	08:00	0	0	0	1	1
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	1	1
08:30	08:45	0	0	0	1	1
08:45	09:00	0	0	0	1	1
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	1	1
09:30	09:45	0	0	0	2	2
09:45	10:00	0	0	0	5	5
11:30	11:45	0	0	0	4	4
11:45	12:00	0	0	0	3	3
12:00	12:15	0	0	0	4	4
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	1	1
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	5	5
13:15	13:30	0	0	0	3	3
15:00	15:15	0	0	1	6	7
15:15	15:30	0	0	0	1	1
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	3	3
16:15	16:30	0	0	0	4	4
16:30	16:45	0	0	0	2	2
16:45	17:00	0	0	0	1	1
17:00	17:15	0	0	0	1	1
17:15	17:30	0	0	0	5	5
17:30	17:45	0	0	0	2	2
Total		0	0	2	61	63

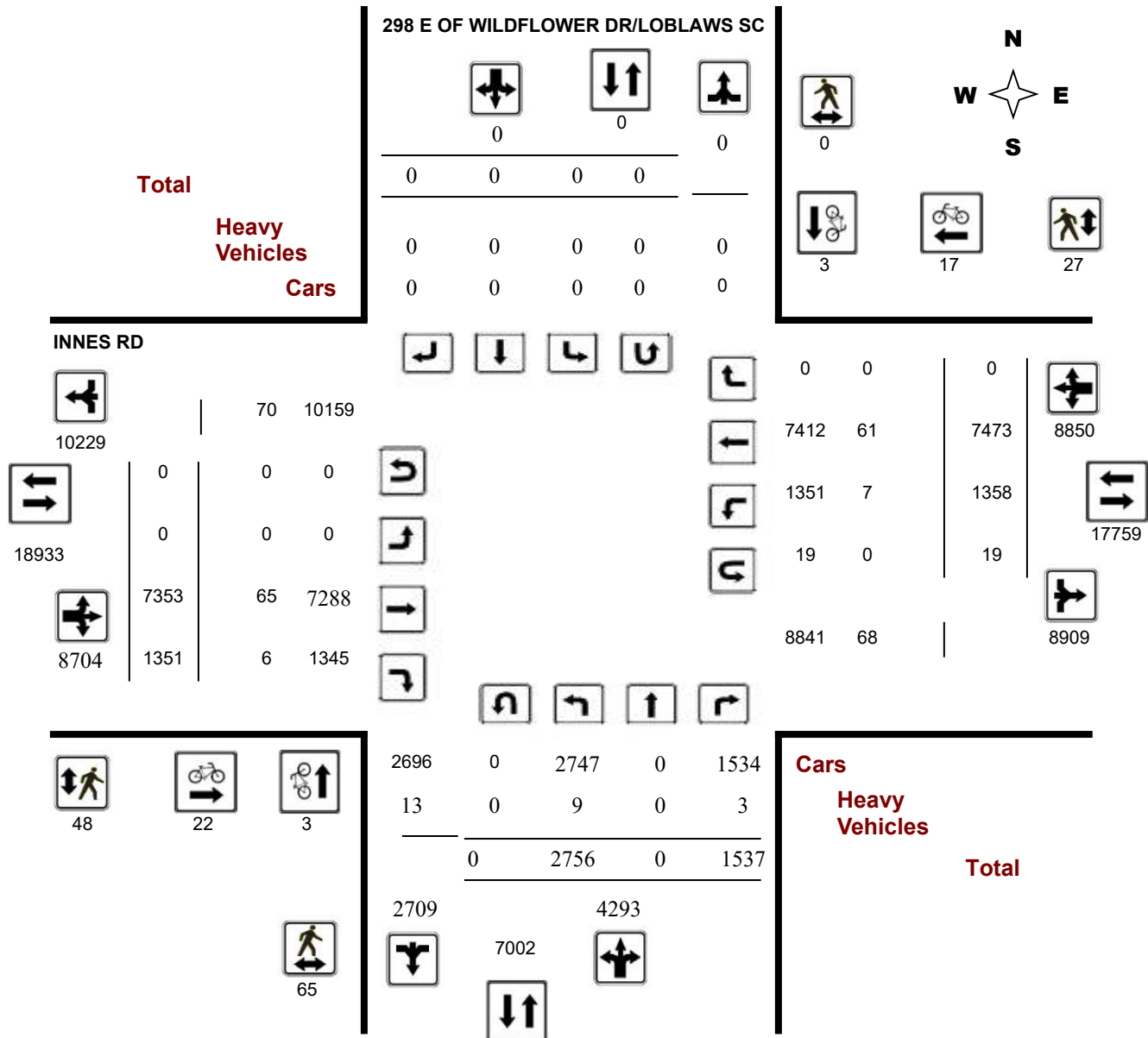
Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study Diagram



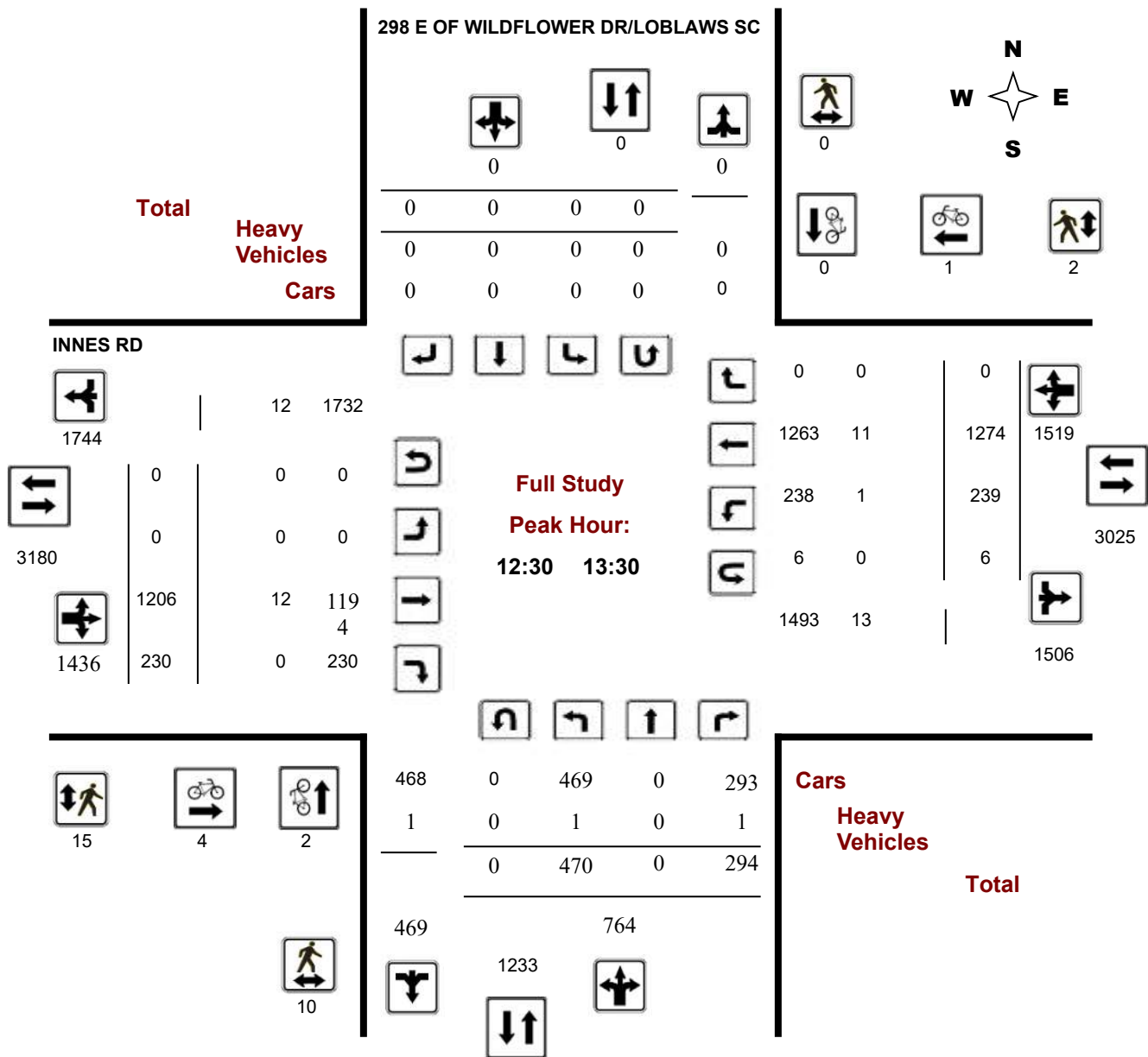
Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



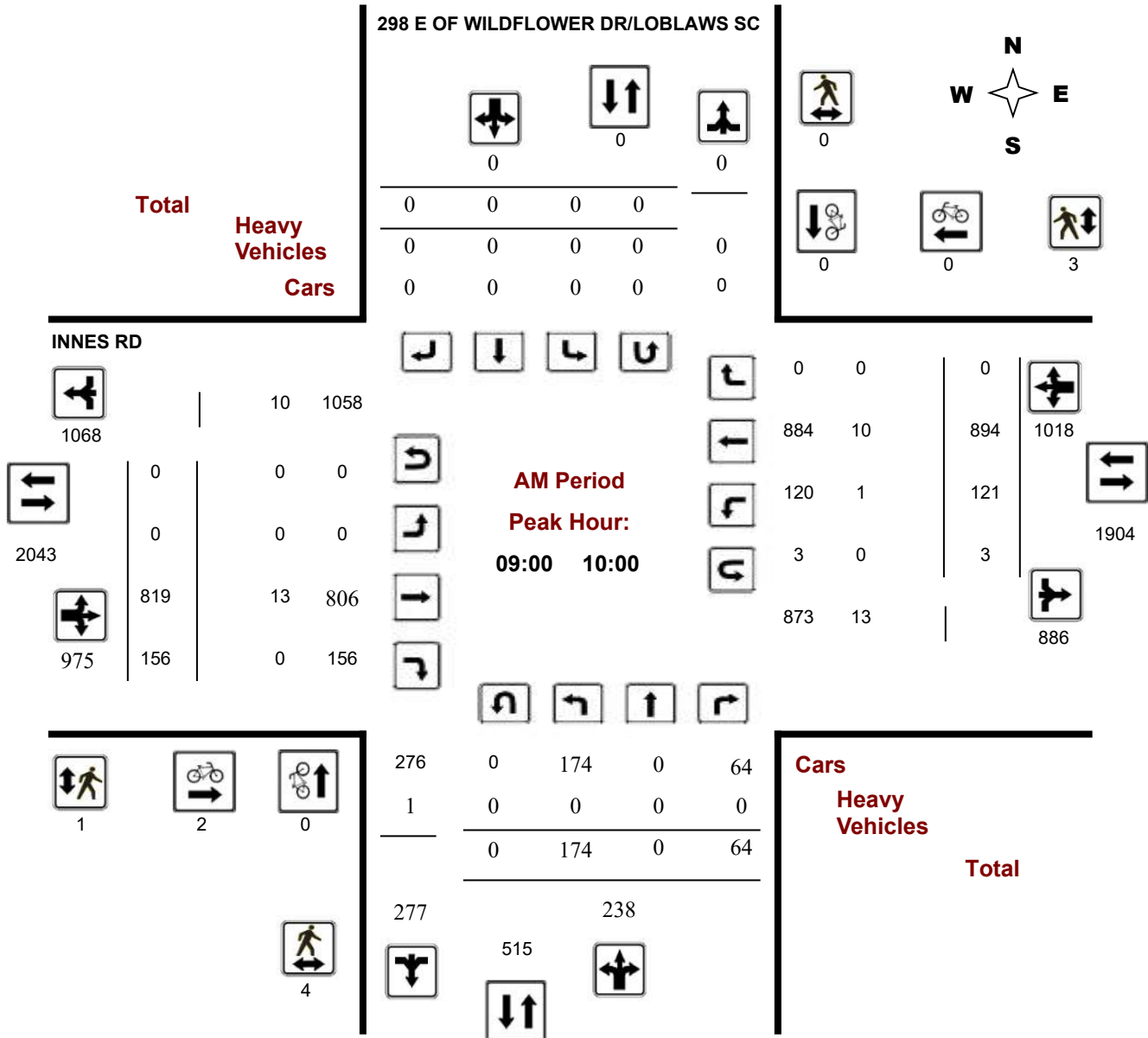
Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

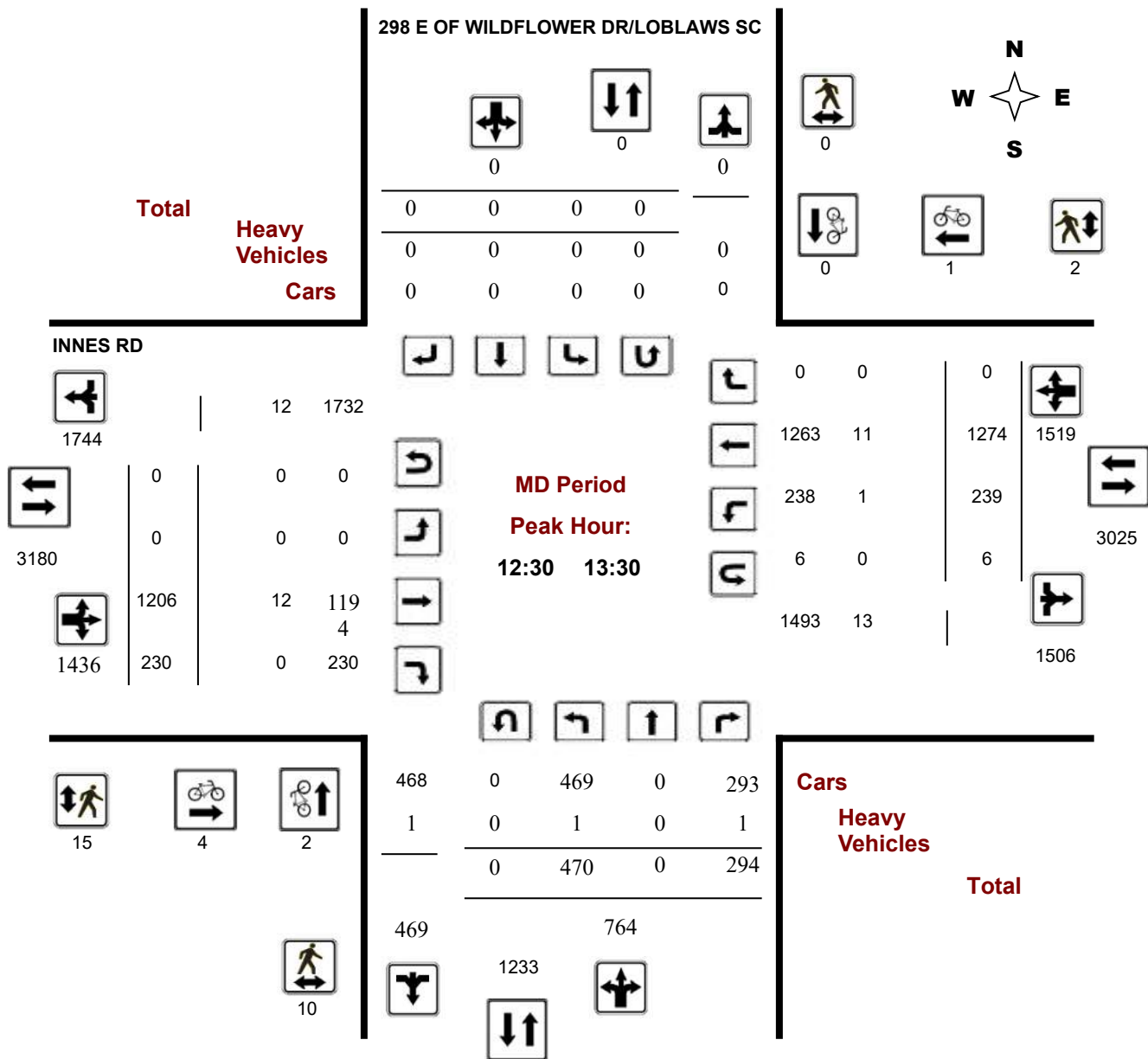
Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



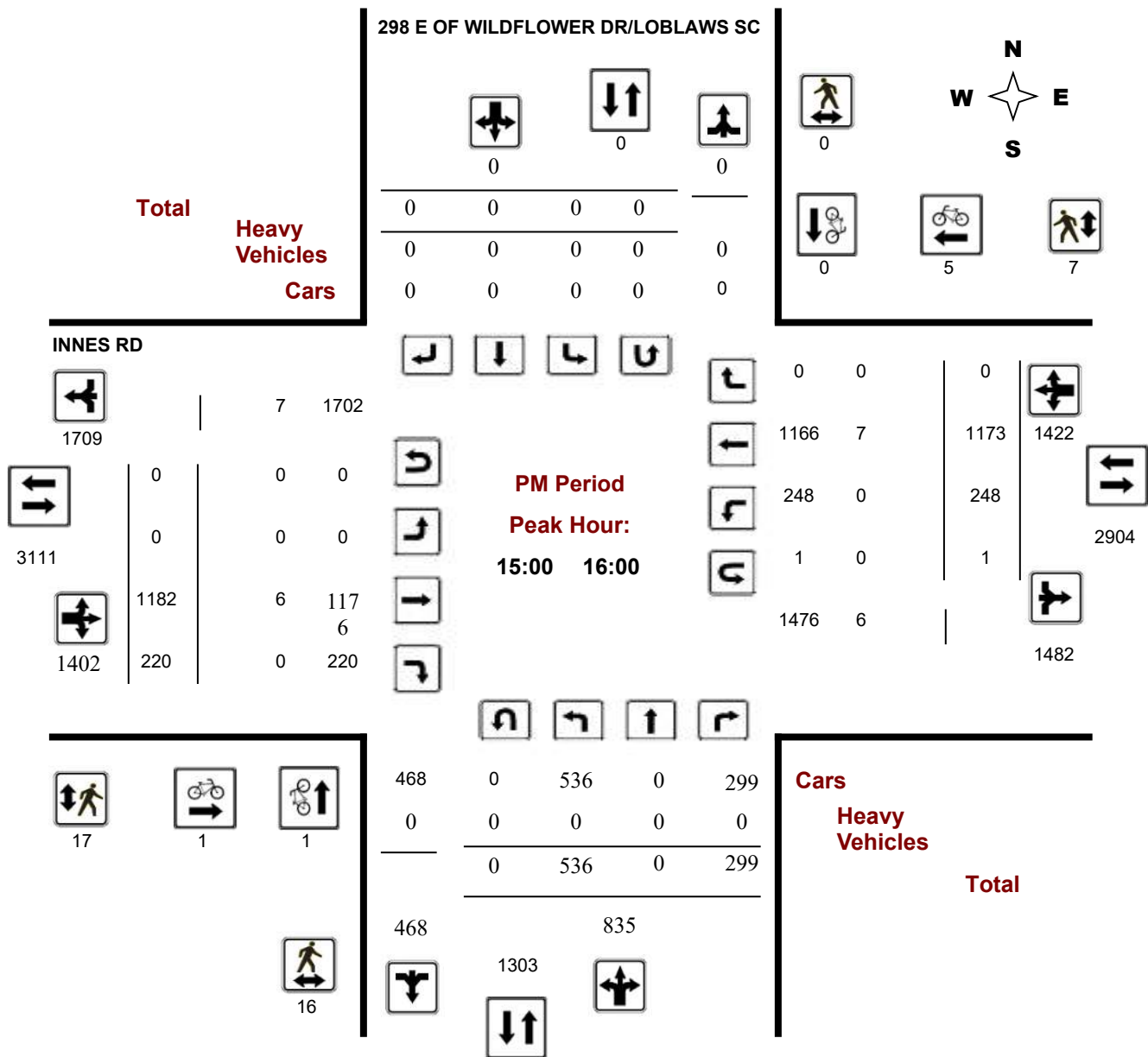
Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Saturday, October 12, 2024

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 0 Westbound: 19

AADT Factor

1.10

298 E OF WILDFLOWER DR/LOBLAWS SC

INNES RD

		Northbound				Southbound				Eastbound				Westbound						
Period		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00	08:00	55	0	14	69	0	0	0	0	69	0	248	80	328	32	326	0	358	686	755
08:00	09:00	83	0	21	104	0	0	0	0	104	0	506	95	601	46	661	0	707	1308	1412
09:00	10:00	174	0	64	238	0	0	0	0	238	0	819	156	975	121	894	0	1015	1990	2228
11:30	12:30	476	0	285	761	0	0	0	0	761	0	1212	212	1424	245	1215	0	1460	2884	3645
12:30	13:30	470	0	294	764	0	0	0	0	764	0	1206	230	1436	239	1274	0	1513	2949	3713
15:00	16:00	536	0	299	835	0	0	0	0	835	0	1182	220	1402	248	1173	0	1421	2823	3658
16:00	17:00	489	0	306	795	0	0	0	0	795	0	1097	195	1292	239	1017	0	1256	2548	3343
17:00	18:00	473	0	254	727	0	0	0	0	727	0	1083	163	1246	188	913	0	1101	2347	3074
Sub Total		2756	0	1537	4293	0	0	0	0	4293	0	7353	1351	8704	1358	7473	0	8831	17535	21828
U Turns					0				0	0				0				19	19	19
Total		2756	0	1537	4293	0	0	0	0	4293	0	7353	1351	8704	1358	7473	0	8850	17554	21847
EQ 12Hr		3831	0	2136	5967	0	0	0	0	5967	0	10221	1878	12099	1888	10387	0	12302	24400	30367

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	4214	0	2350	6564		0	0	0	0	6564	0	11243	2066	13309		2077	11426	0	13532	26840	33404
-----------------	------	---	------	------	--	---	---	---	---	------	---	-------	------	-------	--	------	-------	---	-------	-------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.10

AVG 24Hr	5520	0	3078	8599		0	0	0	0	8599	0	14728	2706	17435		2721	14968	0	17727	35160	43759
-----------------	------	---	------	------	--	---	---	---	---	------	---	-------	------	-------	--	------	-------	---	-------	-------	-------

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

298 E OF WILDFLOWER DR/LOBLAWS SC

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	4	0	5	9	0	0	0	0	9	0	31	13	44	6	82	0	88	132	141
07:15 07:30	12	0	1	13	0	0	0	0	13	0	57	22	79	7	64	0	72	151	164
07:30 07:45	18	0	2	20	0	0	0	0	20	0	73	23	96	7	82	0	89	185	205
07:45 08:00	21	0	6	27	0	0	0	0	27	0	87	22	109	12	98	0	111	220	247
08:00 08:15	10	0	4	14	0	0	0	0	14	0	101	20	121	7	107	0	114	235	249
08:15 08:30	16	0	4	20	0	0	0	0	20	0	104	17	121	13	142	0	155	276	296
08:30 08:45	26	0	2	28	0	0	0	0	28	0	145	34	179	7	210	0	217	396	424
08:45 09:00	31	0	11	42	0	0	0	0	42	0	156	24	180	19	202	0	222	402	444
09:00 09:15	35	0	9	44	0	0	0	0	44	0	172	34	206	25	171	0	197	403	447
09:15 09:30	37	0	17	54	0	0	0	0	54	0	197	34	231	32	228	0	260	491	545
09:30 09:45	47	0	21	68	0	0	0	0	68	0	225	41	266	26	234	0	262	528	596
09:45 10:00	55	0	17	72	0	0	0	0	72	0	225	47	272	38	261	0	299	571	643
11:30 11:45	123	0	67	190	0	0	0	0	190	0	277	52	329	64	306	0	371	700	890
11:45 12:00	115	0	82	197	0	0	0	0	197	0	310	46	356	59	313	0	373	729	926
12:00 12:15	114	0	65	179	0	0	0	0	179	0	297	59	356	53	293	0	347	703	882
12:15 12:30	124	0	71	195	0	0	0	0	195	0	328	55	383	69	303	0	372	755	950
12:30 12:45	135	0	65	200	0	0	0	0	200	0	301	58	359	54	325	0	381	740	940
12:45 13:00	119	0	72	191	0	0	0	0	191	0	308	57	365	57	314	0	373	738	929
13:00 13:15	105	0	72	177	0	0	0	0	177	0	280	46	326	70	295	0	366	692	869
13:15 13:30	111	0	85	196	0	0	0	0	196	0	317	69	386	58	340	0	399	785	981
15:00 15:15	127	0	66	193	0	0	0	0	193	0	295	48	343	70	287	0	357	700	893
15:15 15:30	144	0	82	226	0	0	0	0	226	0	300	50	350	66	319	0	385	735	961
15:30 15:45	116	0	80	196	0	0	0	0	196	0	294	64	358	53	285	0	338	696	892
15:45 16:00	149	0	71	220	0	0	0	0	220	0	293	58	351	59	282	0	342	693	913
16:00 16:15	124	0	68	192	0	0	0	0	192	0	286	46	332	59	257	0	317	649	841
16:15 16:30	131	0	74	205	0	0	0	0	205	0	266	60	326	62	229	0	291	617	822
16:30 16:45	114	0	83	197	0	0	0	0	197	0	275	46	321	57	261	0	319	640	837
16:45 17:00	120	0	81	201	0	0	0	0	201	0	270	43	313	61	270	0	331	644	845
17:00 17:15	123	0	75	198	0	0	0	0	198	0	288	36	324	51	258	0	310	634	832
17:15 17:30	137	0	65	202	0	0	0	0	202	0	268	51	319	51	219	0	270	589	791
17:30 17:45	101	0	63	164	0	0	0	0	164	0	260	37	297	46	216	0	262	559	723
17:45 18:00	112	0	51	163	0	0	0	0	163	0	267	39	306	40	220	0	260	566	729
Total:	2756	0	1537	4293	0	0	0	0	4293	0	7353	1351	8704	1358	7473	0	8850	17554	21,847

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

298 E OF WILDFLOWER DR/LOBLAWS SC

INNES RD

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	1	0	1	1
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	1	1	1
08:00	08:15	0	0	0	1	0	1	1
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	1	0	1	1
09:30	09:45	0	0	0	1	0	1	1
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	2	1	3	3
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	1	0	1	1
12:30	12:45	0	0	0	1	0	1	1
12:45	13:00	0	0	0	1	0	1	1
13:00	13:15	2	0	2	2	1	3	5
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	1	1	2	2
15:30	15:45	1	0	1	0	2	2	3
15:45	16:00	0	0	0	0	2	2	2
16:00	16:15	0	1	1	1	4	5	6
16:15	16:30	0	0	0	0	1	1	1
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	2	2	4	0	4	6
17:00	17:15	0	0	0	3	1	4	4
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	1	1	2	2
17:45	18:00	0	0	0	1	2	3	3
Total		3	3	6	22	17	39	45



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

298 E OF WILDFLOWER
DR/LOBLAWS SC

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	0	0	0	0
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	1	0	1	0	0	0	1
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	1	0	1	0	0	0	1
09:00 09:15	3	0	3	0	1	1	4
09:15 09:30	1	0	1	0	0	0	1
09:30 09:45	0	0	0	0	2	2	2
09:45 10:00	0	0	0	1	0	1	1
11:30 11:45	6	0	6	1	0	1	7
11:45 12:00	2	0	2	0	1	1	3
12:00 12:15	1	0	1	0	1	1	2
12:15 12:30	5	0	5	0	1	1	6
12:30 12:45	3	0	3	2	1	3	6
12:45 13:00	2	0	2	2	0	2	4
13:00 13:15	2	0	2	7	0	7	9
13:15 13:30	3	0	3	4	1	5	8
15:00 15:15	8	0	8	3	0	3	11
15:15 15:30	4	0	4	4	2	6	10
15:30 15:45	2	0	2	2	4	6	8
15:45 16:00	2	0	2	8	1	9	11
16:00 16:15	3	0	3	7	0	7	10
16:15 16:30	2	0	2	2	3	5	7
16:30 16:45	4	0	4	1	1	2	6
16:45 17:00	0	0	0	1	0	1	1
17:00 17:15	1	0	1	1	3	4	5
17:15 17:30	3	0	3	0	2	2	5
17:30 17:45	6	0	6	1	1	2	8
17:45 18:00	0	0	0	1	2	3	3
Total	65	0	65	48	27	75	140



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

**298 E OF WILDFLOWER
DR/LOBLAWS SC**

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			Southbound			Eastbound			Westbound			Grand Total						
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
07:15	07:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4	4
07:30	07:45	0	0	0	0	0	0	0	0	0	0	1	1	2	0	1	0	1	3	3
07:45	08:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
08:00	08:15	0	0	0	0	0	0	0	0	0	0	5	1	6	0	2	0	2	8	8
08:15	08:30	0	0	0	0	0	0	0	0	0	0	2	1	3	1	1	0	2	5	5
08:30	08:45	0	0	0	0	0	0	0	0	0	0	4	1	5	0	0	0	0	5	5
08:45	09:00	1	0	1	2	0	0	0	0	2	0	0	0	0	0	1	0	1	1	3
09:00	09:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5	5
09:15	09:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
09:30	09:45	0	0	0	0	0	0	0	0	0	0	5	0	5	1	1	0	2	7	7
09:45	10:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	5	0	5	8	8
11:30	11:45	0	0	0	0	0	0	0	0	0	0	4	0	4	1	2	0	3	7	7
11:45	12:00	2	0	0	2	0	0	0	0	2	0	1	1	2	0	4	0	4	6	8
12:00	12:15	0	0	1	1	0	0	0	0	1	0	2	0	2	0	3	0	3	5	6
12:15	12:30	0	0	0	0	0	0	0	0	0	0	1	1	2	0	2	0	2	4	4
12:30	12:45	0	0	0	0	0	0	0	0	0	0	3	0	3	1	4	0	5	8	8
12:45	13:00	1	0	1	2	0	0	0	0	2	0	3	0	3	0	3	0	3	6	8
13:00	13:15	0	0	0	0	0	0	0	0	0	0	4	0	4	0	3	0	3	7	7
13:15	13:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3	3
15:00	15:15	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
15:15	15:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
15:30	15:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
15:45	16:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5	5
16:00	16:15	1	0	0	1	0	0	0	0	1	0	1	0	1	1	1	0	2	3	4
16:15	16:30	1	0	0	1	0	0	0	0	1	0	2	0	2	1	1	0	2	4	5
16:30	16:45	1	0	0	1	0	0	0	0	1	0	1	0	1	0	2	0	2	3	4
16:45	17:00	1	0	0	1	0	0	0	0	1	0	2	0	2	0	2	0	2	4	5
17:00	17:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
17:15	17:30	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	2	3	3
17:30	17:45	1	0	0	1	0	0	0	0	1	0	3	0	3	0	2	0	2	5	6
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
Total:	None	9	0	3	12	0	0	0	0	12	0	65	6	71	7	61	0	68	139	151



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ 298 E OF WILDFLOWER DR/LOBLAWS SC

Survey Date: Saturday, October 12, 2024

WO No: 42059

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

		298 E OF WILDFLOWER DR/LOBLAWS SC		INNES RD		
Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	1	1
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	1	1
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	1	1
09:00	09:15	0	0	0	1	1
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	2	2
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	1	1
11:45	12:00	0	0	0	1	1
12:00	12:15	0	0	0	1	1
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	2	2
12:45	13:00	0	0	0	2	2
13:00	13:15	0	0	0	1	1
13:15	13:30	0	0	0	1	1
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	1	1
16:00	16:15	0	0	0	1	1
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	1	1
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	1	1
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	0	19	19

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

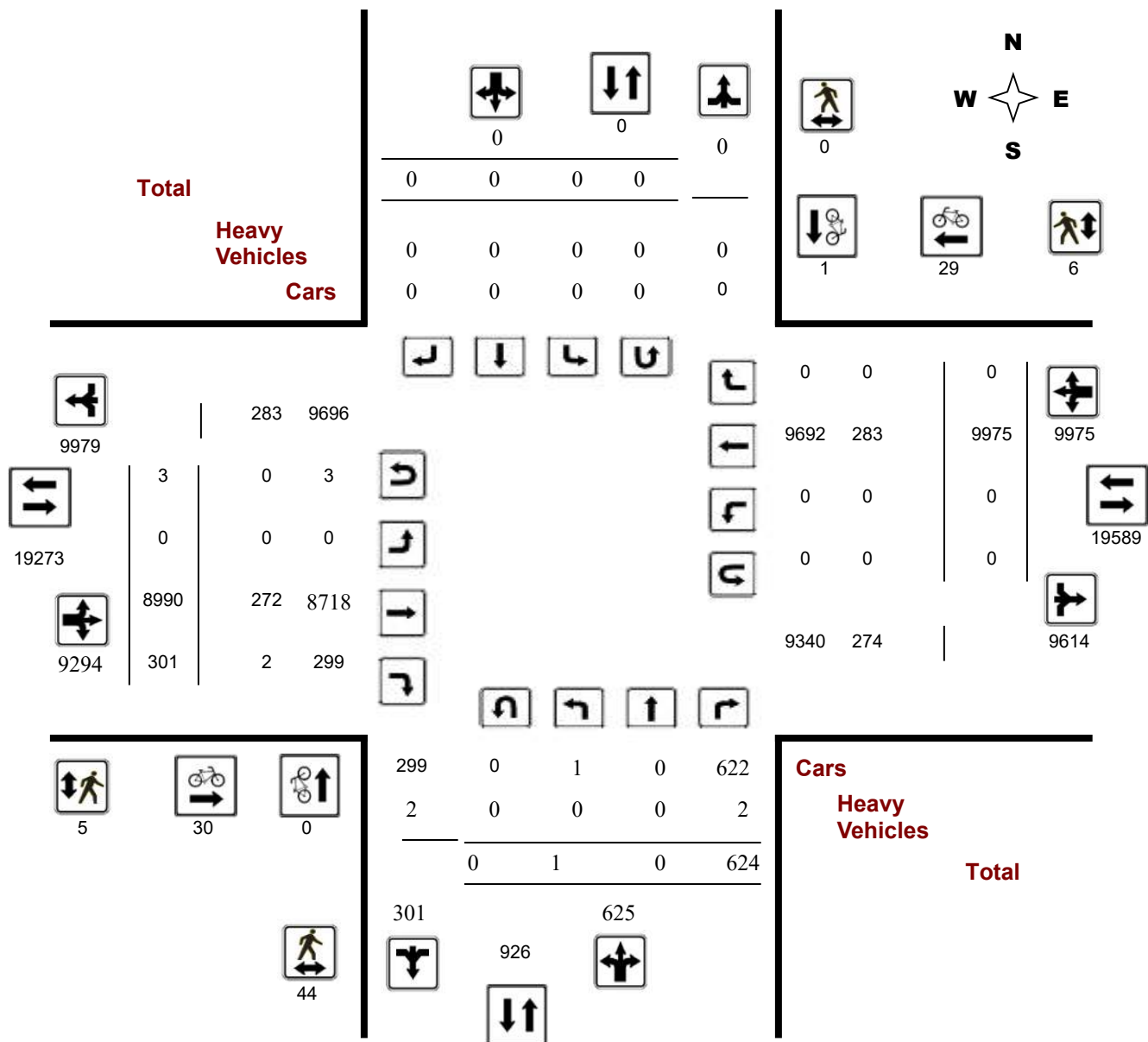
Survey Date: Tuesday, September 17, 2024

Start Time: 07:00

WO No: 42057

Device: Miovision

Full Study Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

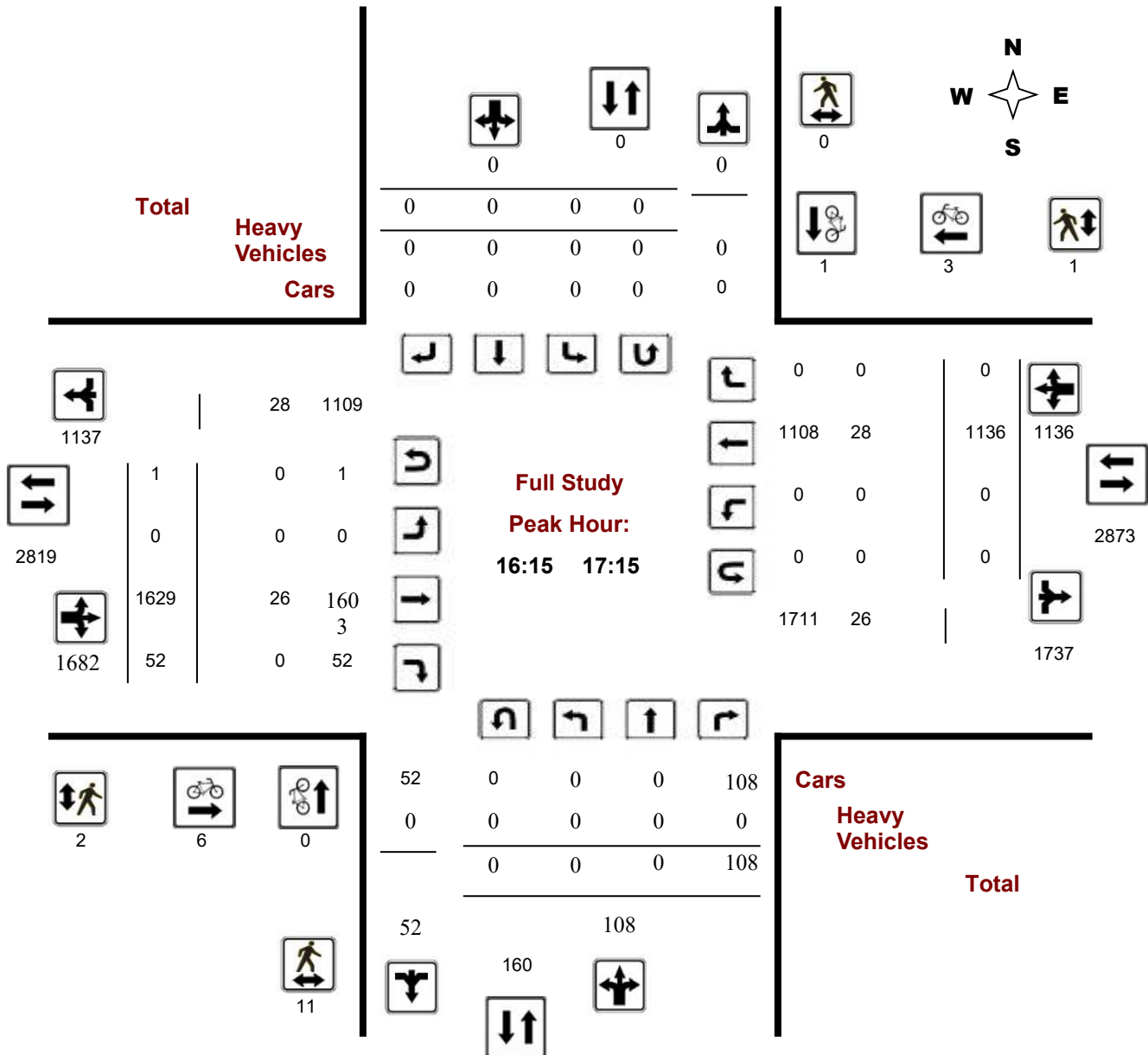
Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

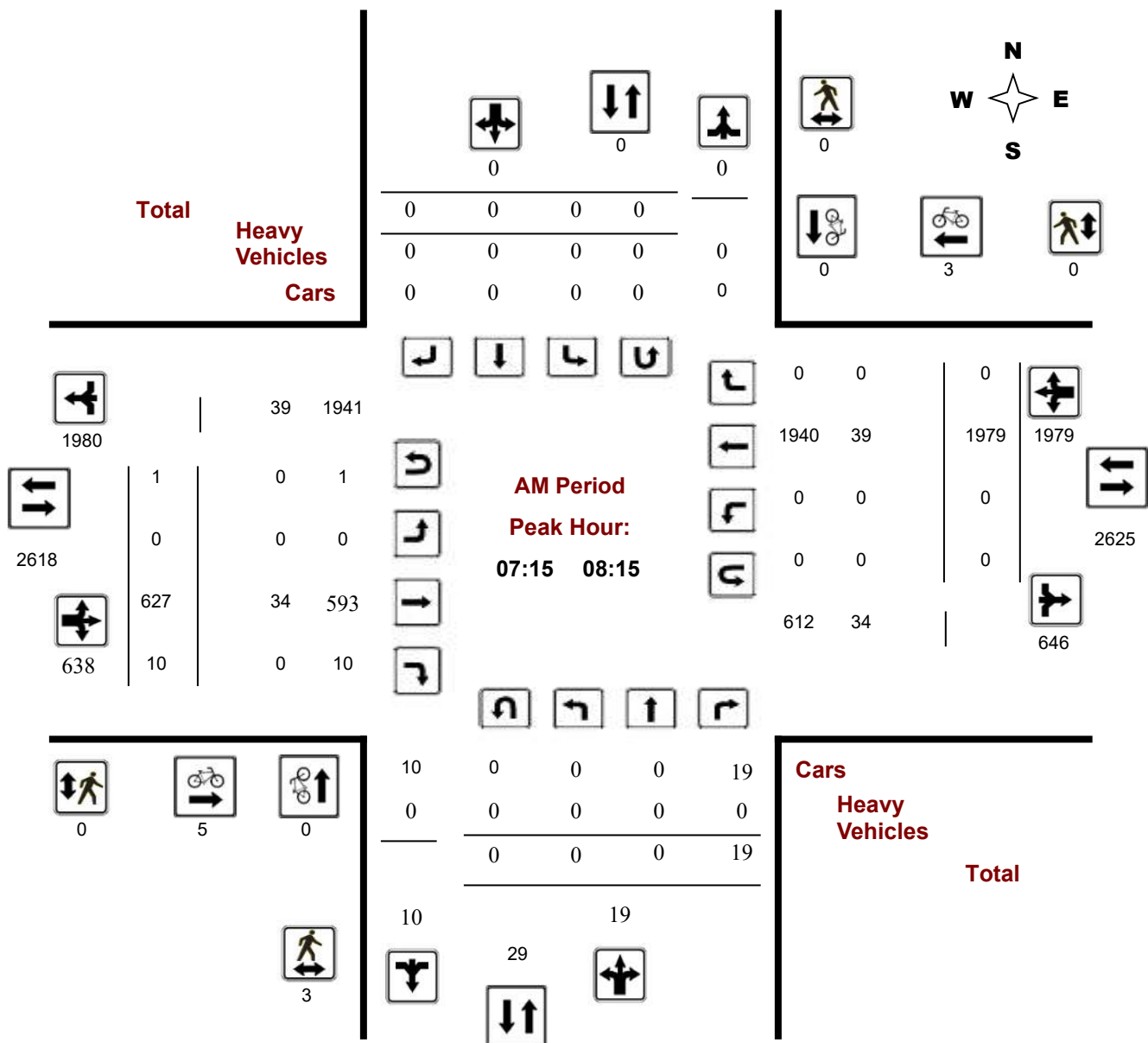
Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

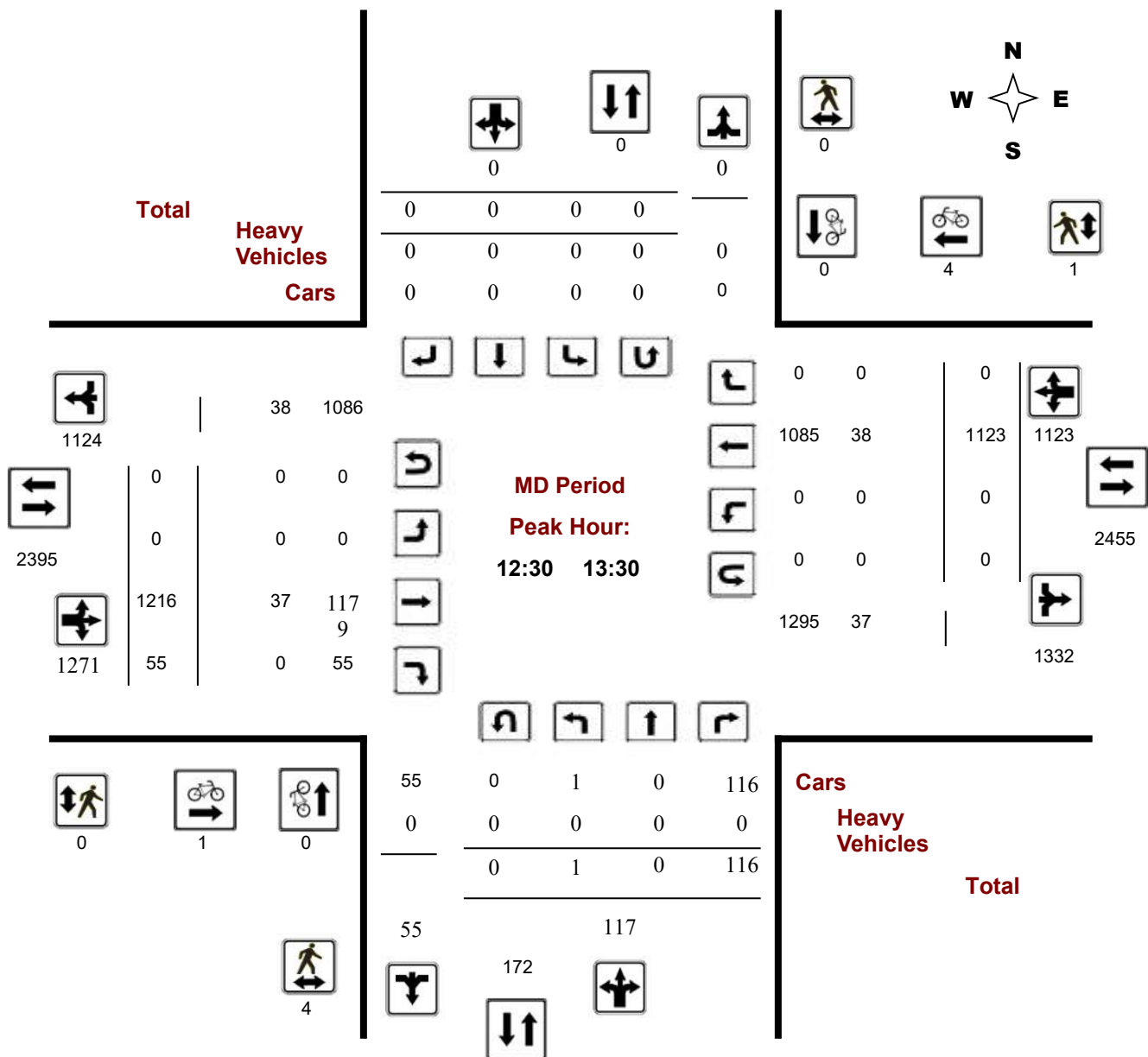
Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



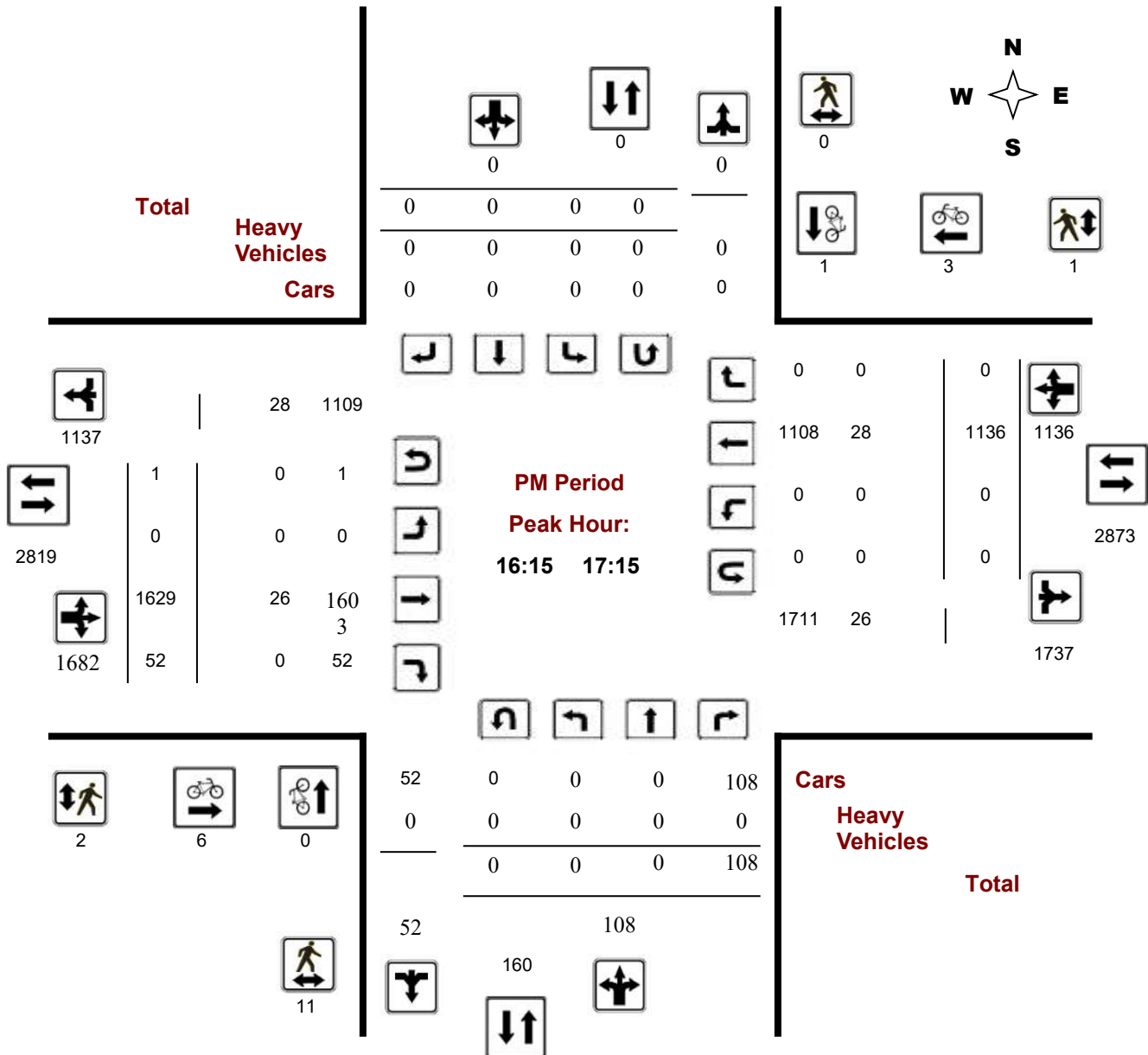
Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Tuesday, September 17, 2024

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0
Eastbound: 3 Westbound: 0

1.00

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	0	0	18	18	0	0	0	0	18	0	584	10	594	0	2016	0	2016	2610	2628
08:00 09:00	0	0	25	25	0	0	0	0	25	0	629	10	639	0	1424	0	1424	2063	2088
09:00 10:00	0	0	50	50	0	0	0	0	50	0	780	25	805	0	996	0	996	1801	1851
11:30 12:30	0	0	101	101	0	0	0	0	101	0	1051	55	1106	0	1064	0	1064	2170	2271
12:30 13:30	1	0	116	117	0	0	0	0	117	0	1216	55	1271	0	1123	0	1123	2394	2511
15:00 16:00	0	0	93	93	0	0	0	0	93	0	1562	48	1610	0	1122	0	1122	2732	2825
16:00 17:00	0	0	105	105	0	0	0	0	105	0	1648	45	1693	0	1124	0	1124	2817	2922
17:00 18:00	0	0	116	116	0	0	0	0	116	0	1520	53	1573	0	1106	0	1106	2679	2795
Sub Total	1	0	624	625	0	0	0	0	625	0	8990	301	9291	0	9975	0	9975	19266	19891
U Turns				0				0	0				3				0	3	3
Total	1	0	624	625	0	0	0	0	625	0	8990	301	9294	0	9975	0	9975	19269	19894
EQ 12Hr	1	0	867	869	0	0	0	0	869	0	12496	418	12919	0	13865	0	13865	26784	27653

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	1	0	867	869	0	0	0	0	869	0	12496	418	12919	0	13865	0	13865	26784	27653
----------	---	---	-----	-----	---	---	---	---	-----	---	-------	-----	-------	---	-------	---	-------	-------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.00

AVG 24Hr	1	0	1136	1138	0	0	0	0	1138	0	16370	548	16924	0	18163	0	18163	35087	36225
----------	---	---	------	------	---	---	---	---	------	---	-------	-----	-------	---	-------	---	-------	-------	-------

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

		Northbound				Southbound				Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	3	3	0	0	0	0	3	0	104	1	105	0	459	0	459	564	567
07:15	07:30	0	0	7	7	0	0	0	0	7	0	127	0	127	0	512	0	512	639	646
07:30	07:45	0	0	4	4	0	0	0	0	4	0	165	2	168	0	542	0	542	710	714
07:45	08:00	0	0	4	4	0	0	0	0	4	0	188	7	195	0	503	0	503	698	702
08:00	08:15	0	0	4	4	0	0	0	0	4	0	147	1	148	0	422	0	422	570	574
08:15	08:30	0	0	8	8	0	0	0	0	8	0	148	2	150	0	353	0	353	503	511
08:30	08:45	0	0	5	5	0	0	0	0	5	0	158	5	163	0	361	0	361	524	529
08:45	09:00	0	0	8	8	0	0	0	0	8	0	176	2	178	0	288	0	288	466	474
09:00	09:15	0	0	8	8	0	0	0	0	8	0	182	7	189	0	280	0	280	469	477
09:15	09:30	0	0	10	10	0	0	0	0	10	0	198	7	205	0	243	0	243	448	458
09:30	09:45	0	0	21	21	0	0	0	0	21	0	214	2	216	0	242	0	242	458	479
09:45	10:00	0	0	11	11	0	0	0	0	11	0	186	9	195	0	231	0	231	426	437
11:30	11:45	0	0	27	27	0	0	0	0	27	0	237	10	247	0	263	0	263	510	537
11:45	12:00	0	0	21	21	0	0	0	0	21	0	265	13	278	0	249	0	249	527	548
12:00	12:15	0	0	22	22	0	0	0	0	22	0	288	16	304	0	288	0	288	592	614
12:15	12:30	0	0	31	31	0	0	0	0	31	0	261	16	278	0	264	0	264	542	573
12:30	12:45	1	0	22	23	0	0	0	0	23	0	332	12	344	0	304	0	304	648	671
12:45	13:00	0	0	40	40	0	0	0	0	40	0	296	17	313	0	267	0	267	580	620
13:00	13:15	0	0	27	27	0	0	0	0	27	0	265	16	281	0	264	0	264	545	572
13:15	13:30	0	0	27	27	0	0	0	0	27	0	323	10	333	0	288	0	288	621	648
15:00	15:15	0	0	25	25	0	0	0	0	25	0	349	6	355	0	259	0	259	614	639
15:15	15:30	0	0	21	21	0	0	0	0	21	0	436	18	454	0	284	0	284	738	759
15:30	15:45	0	0	24	24	0	0	0	0	24	0	431	15	446	0	279	0	279	725	749
15:45	16:00	0	0	23	23	0	0	0	0	23	0	346	9	355	0	300	0	300	655	678
16:00	16:15	0	0	29	29	0	0	0	0	29	0	397	5	402	0	280	0	280	682	711
16:15	16:30	0	0	21	21	0	0	0	0	21	0	411	12	423	0	275	0	275	698	719
16:30	16:45	0	0	22	22	0	0	0	0	22	0	421	7	428	0	302	0	302	730	752
16:45	17:00	0	0	33	33	0	0	0	0	33	0	419	21	440	0	267	0	267	707	740
17:00	17:15	0	0	32	32	0	0	0	0	32	0	378	12	391	0	292	0	292	683	715
17:15	17:30	0	0	24	24	0	0	0	0	24	0	400	12	412	0	263	0	263	675	699
17:30	17:45	0	0	30	30	0	0	0	0	30	0	389	10	399	0	286	0	286	685	715
17:45	18:00	0	0	30	30	0	0	0	0	30	0	353	19	372	0	265	0	265	637	667
Total:		1	0	624	625	0	0	0	0	625	0	8990	301	9294	0	9975	0	9975	19269	19,894

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	3	3	3
07:15	07:30	0	0	0	2	0	2	2
07:30	07:45	0	0	0	1	1	2	2
07:45	08:00	0	0	0	2	1	3	3
08:00	08:15	0	0	0	0	1	1	1
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	1	1	1
09:00	09:15	0	0	0	1	0	1	1
09:15	09:30	0	0	0	1	1	2	2
09:30	09:45	0	0	0	0	1	1	1
09:45	10:00	0	0	0	1	1	2	2
11:30	11:45	0	0	0	3	0	3	3
11:45	12:00	0	0	0	0	1	1	1
12:00	12:15	0	0	0	5	0	5	5
12:15	12:30	0	0	0	0	1	1	1
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	1	0	1	1
13:15	13:30	0	0	0	0	4	4	4
15:00	15:15	0	0	0	0	2	2	2
15:15	15:30	0	0	0	0	1	1	1
15:30	15:45	0	0	0	1	3	4	4
15:45	16:00	0	0	0	3	0	3	3
16:00	16:15	0	0	0	2	0	2	2
16:15	16:30	0	1	1	0	1	1	2
16:30	16:45	0	0	0	1	1	2	2
16:45	17:00	0	0	0	2	0	2	2
17:00	17:15	0	0	0	3	1	4	4
17:15	17:30	0	0	0	0	2	2	2
17:30	17:45	0	0	0	1	1	2	2
17:45	18:00	0	0	0	0	1	1	1
Total		0	1	1	30	29	59	60



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	0	1	0	0	0	1
07:15 07:30	2	0	2	0	0	0	2
07:30 07:45	1	0	1	0	0	0	1
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	0	0	0	1	0	1	1
08:45 09:00	2	0	2	0	0	0	2
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	0	0	0
09:30 09:45	1	0	1	0	0	0	1
09:45 10:00	1	0	1	0	1	1	2
11:30 11:45	0	0	0	0	2	2	2
11:45 12:00	4	0	4	0	0	0	4
12:00 12:15	0	0	0	0	0	0	0
12:15 12:30	2	0	2	0	0	0	2
12:30 12:45	1	0	1	0	0	0	1
12:45 13:00	2	0	2	0	0	0	2
13:00 13:15	1	0	1	0	0	0	1
13:15 13:30	0	0	0	0	1	1	1
15:00 15:15	2	0	2	0	0	0	2
15:15 15:30	1	0	1	0	0	0	1
15:30 15:45	3	0	3	2	0	2	5
15:45 16:00	4	0	4	0	0	0	4
16:00 16:15	2	0	2	0	0	0	2
16:15 16:30	1	0	1	2	0	2	3
16:30 16:45	2	0	2	0	1	1	3
16:45 17:00	7	0	7	0	0	0	7
17:00 17:15	1	0	1	0	0	0	1
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	2	0	2	0	0	0	2
17:45 18:00	1	0	1	0	1	1	2
Total	44	0	44	5	6	11	55



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

		Northbound				Southbound				Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	0	0	0	0	0	0	0	0	0	0	8	0	8	0	8	0	8	16	16
07:15	07:30	0	0	0	0	0	0	0	0	0	0	8	0	8	0	8	0	8	16	16
07:30	07:45	0	0	0	0	0	0	0	0	0	0	12	0	12	0	10	0	10	22	22
07:45	08:00	0	0	0	0	0	0	0	0	0	0	8	0	8	0	11	0	11	19	19
08:00	08:15	0	0	0	0	0	0	0	0	0	0	6	0	6	0	10	0	10	16	16
08:15	08:30	0	0	0	0	0	0	0	0	0	0	12	0	12	0	11	0	11	23	23
08:30	08:45	0	0	0	0	0	0	0	0	0	0	11	0	11	0	12	0	12	23	23
08:45	09:00	0	0	0	0	0	0	0	0	0	0	14	0	14	0	9	0	9	23	23
09:00	09:15	0	0	0	0	0	0	0	0	0	0	10	0	10	0	8	0	8	18	18
09:15	09:30	0	0	0	0	0	0	0	0	0	0	13	0	13	0	10	0	10	23	23
09:30	09:45	0	0	0	0	0	0	0	0	0	0	15	0	15	0	10	0	10	25	25
09:45	10:00	0	0	1	1	0	0	0	0	1	0	6	2	8	0	7	0	7	15	16
11:30	11:45	0	0	0	0	0	0	0	0	0	0	10	0	10	0	12	0	12	22	22
11:45	12:00	0	0	0	0	0	0	0	0	0	0	9	0	9	0	9	0	9	18	18
12:00	12:15	0	0	0	0	0	0	0	0	0	0	10	0	10	0	9	0	9	19	19
12:15	12:30	0	0	0	0	0	0	0	0	0	0	11	0	11	0	12	0	12	23	23
12:30	12:45	0	0	0	0	0	0	0	0	0	0	7	0	7	0	9	0	9	16	16
12:45	13:00	0	0	0	0	0	0	0	0	0	0	6	0	6	0	7	0	7	13	13
13:00	13:15	0	0	0	0	0	0	0	0	0	0	9	0	9	0	11	0	11	20	20
13:15	13:30	0	0	0	0	0	0	0	0	0	0	15	0	15	0	11	0	11	26	26
15:00	15:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	10	0	10	13	13
15:15	15:30	0	0	1	1	0	0	0	0	1	0	8	0	8	0	14	0	14	22	23
15:30	15:45	0	0	0	0	0	0	0	0	0	0	6	0	6	0	12	0	12	18	18
15:45	16:00	0	0	0	0	0	0	0	0	0	0	8	0	8	0	12	0	12	20	20
16:00	16:15	0	0	0	0	0	0	0	0	0	0	11	0	11	0	6	0	6	17	17
16:15	16:30	0	0	0	0	0	0	0	0	0	0	9	0	9	0	3	0	3	12	12
16:30	16:45	0	0	0	0	0	0	0	0	0	0	5	0	5	0	15	0	15	20	20
16:45	17:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	5	0	5	9	9
17:00	17:15	0	0	0	0	0	0	0	0	0	0	8	0	8	0	5	0	5	13	13
17:15	17:30	0	0	0	0	0	0	0	0	0	0	4	0	4	0	2	0	2	6	6
17:30	17:45	0	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7	7
17:45	18:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	1	0	1	4	4
Total:	None	0	0	2	2	0	0	0	0	2	0	272	2	274	0	283	0	283	557	559



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Tuesday, September 17, 2024

WO No: 42057

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	1	0	1
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	0	0	0
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
12:15	12:30	0	0	1	0	1
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	0	0	0
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	1	0	1
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
Total		0	0	3	0	3

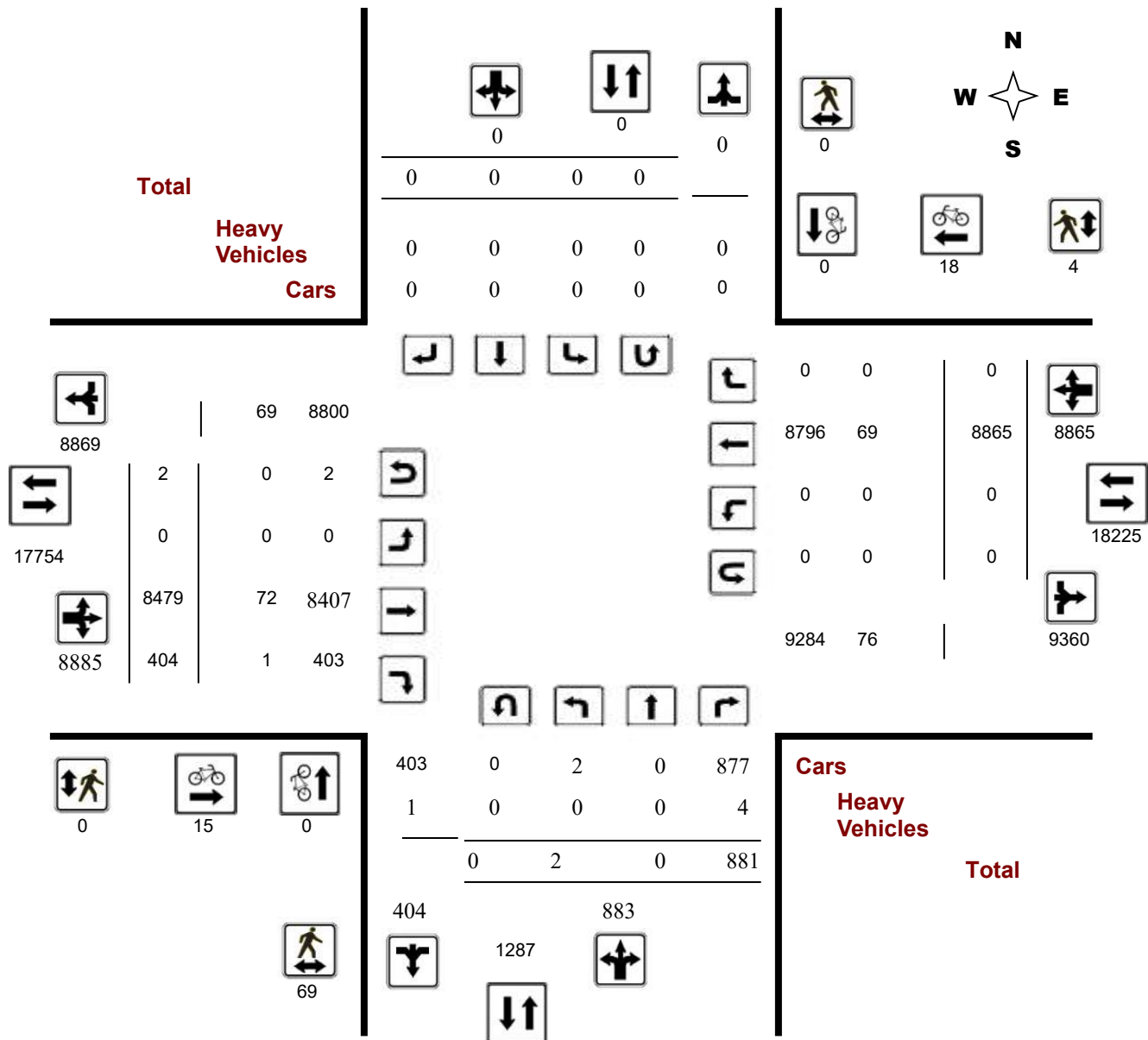
Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

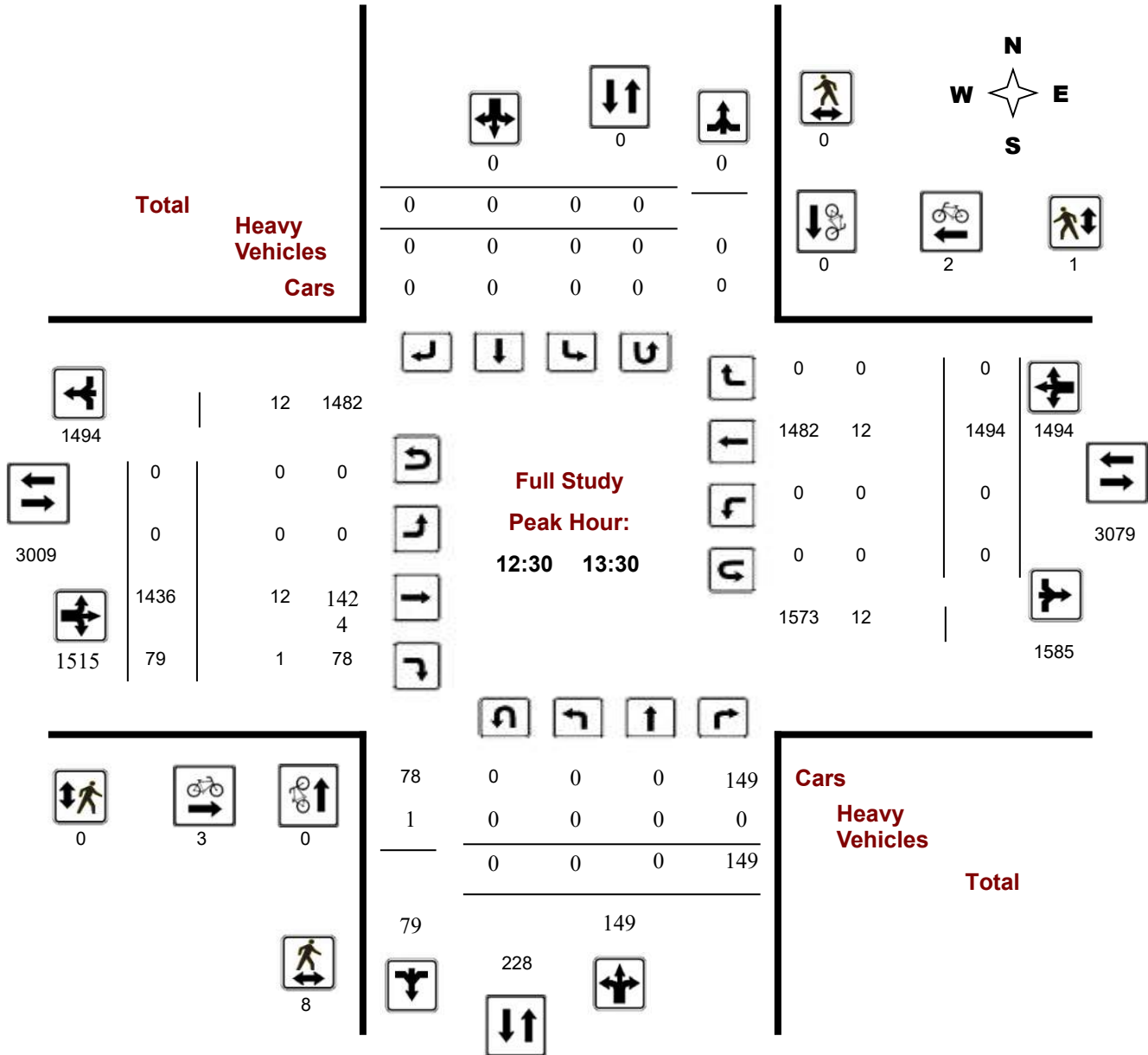
Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

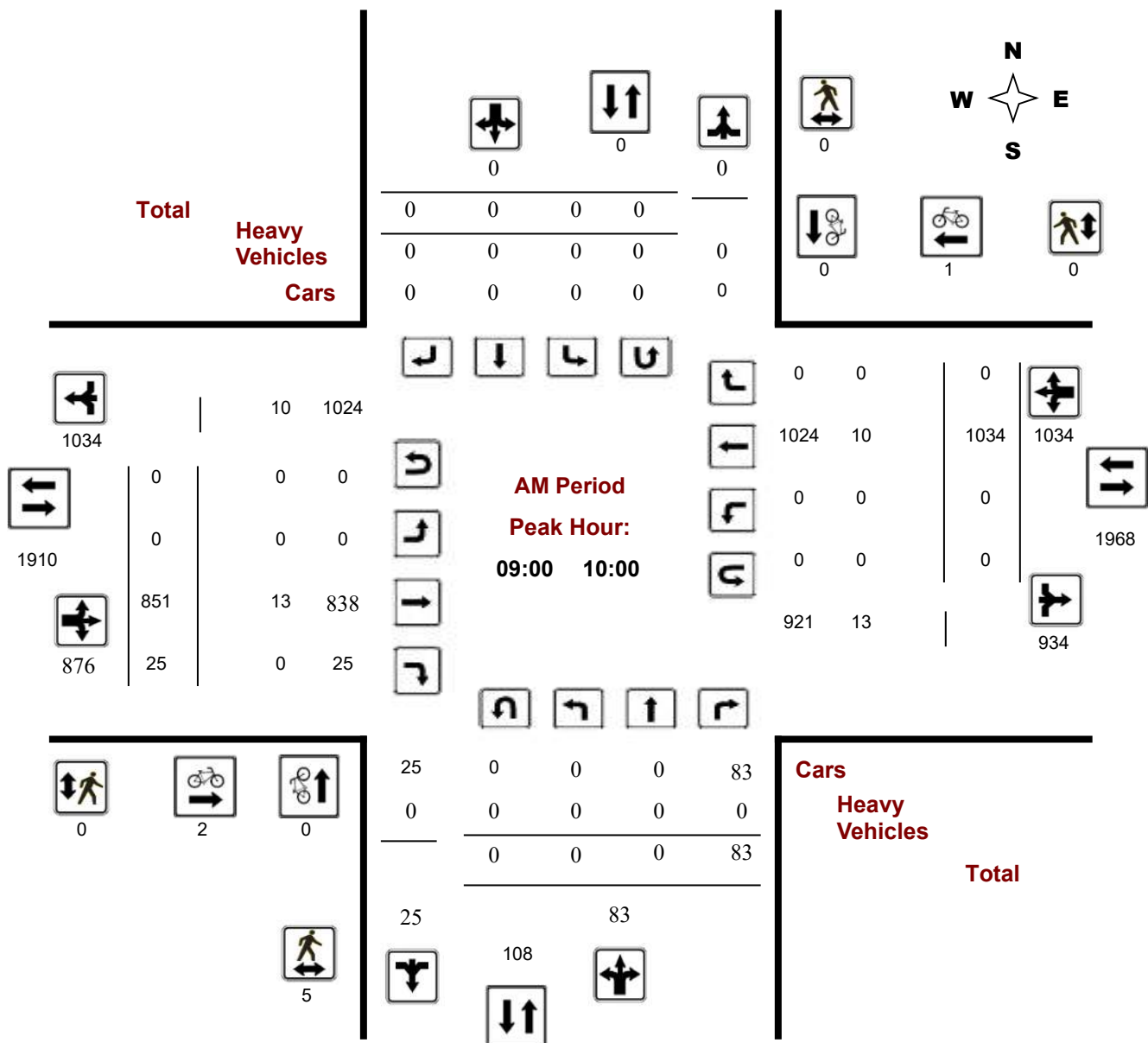
Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

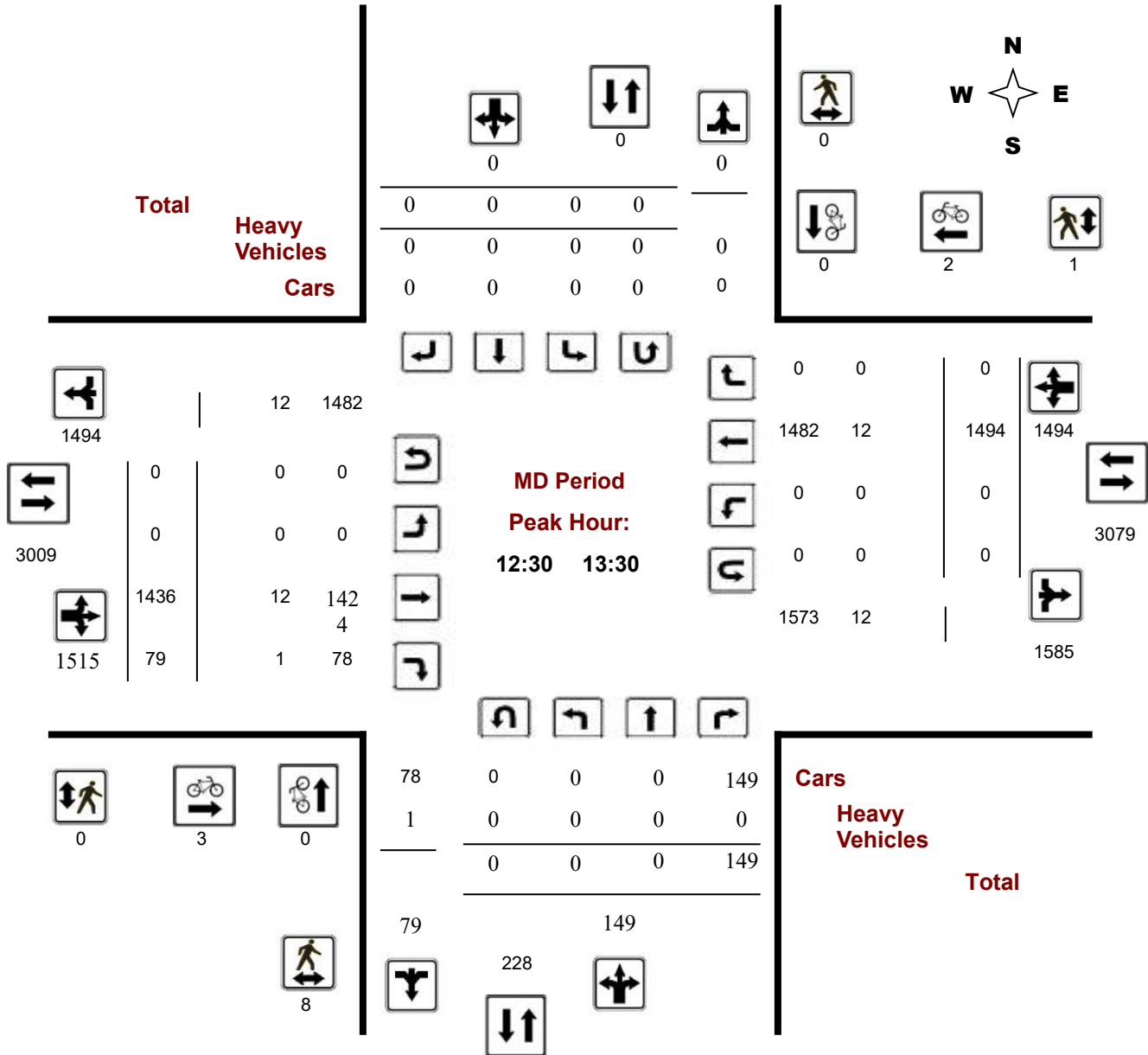
Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



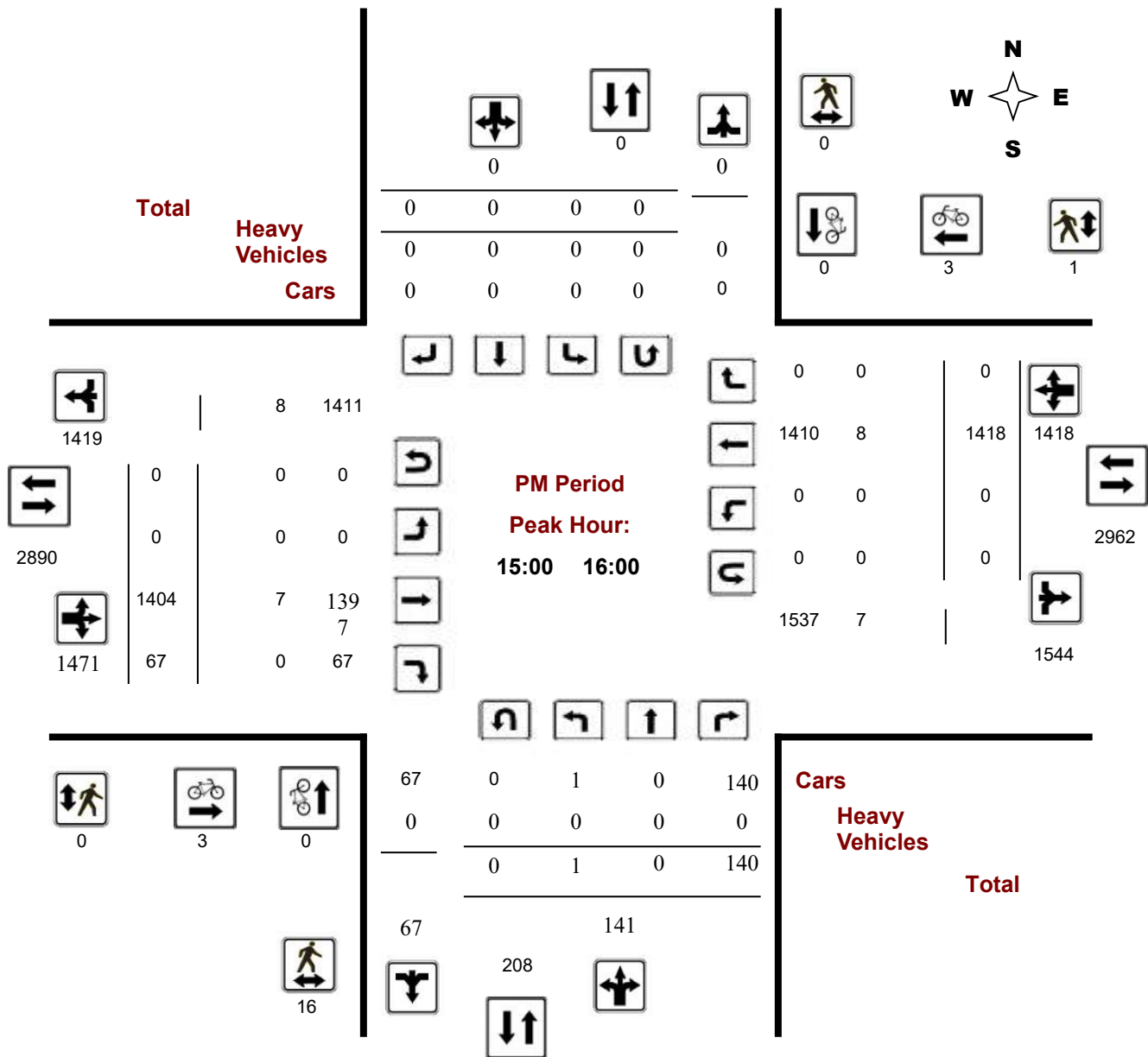
Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Saturday, October 12, 2024

Total Observed U-Turns

Northbound: 0 Southbound: 0
Eastbound: 2 Westbound: 0

AADT Factor

1.10

Period	Northbound				Southbound				STR TOT	Eastbound				Westbound				STR TOT	Grand Total
	LT	ST	RT	NB TOT	LT	ST	RT	SB TOT		LT	ST	RT	EB TOT	LT	ST	RT	WB TOT		
07:00 08:00	0	0	26	26	0	0	0	0	26	0	249	8	257	0	368	0	368	625	651
08:00 09:00	0	0	47	47	0	0	0	0	47	0	512	11	523	0	694	0	694	1217	1264
09:00 10:00	0	0	83	83	0	0	0	0	83	0	851	25	876	0	1034	0	1034	1910	1993
11:30 12:30	0	0	136	136	0	0	0	0	136	0	1421	73	1494	0	1491	0	1491	2985	3121
12:30 13:30	0	0	149	149	0	0	0	0	149	0	1436	79	1515	0	1494	0	1494	3009	3158
15:00 16:00	1	0	140	141	0	0	0	0	141	0	1404	67	1471	0	1418	0	1418	2889	3030
16:00 17:00	1	0	140	141	0	0	0	0	141	0	1358	59	1417	0	1253	0	1253	2670	2811
17:00 18:00	0	0	160	160	0	0	0	0	160	0	1248	82	1330	0	1113	0	1113	2443	2603
Sub Total	2	0	881	883	0	0	0	0	883	0	8479	404	8883	0	8865	0	8865	17748	18631
U Turns				0				0	0				2				0	2	2
Total	2	0	881	883	0	0	0	0	883	0	8479	404	8885	0	8865	0	8865	17750	18633
EQ 12Hr	3	0	1225	1227	0	0	0	0	1227	0	11786	562	12350	0	12322	0	12322	24672	25900
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.																			1.39
AVG 12Hr	3	0	1348	1350	0	0	0	0	1350	0	12965	618	13585	0	13554	0	13554	27139	28490
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.																			1.10
AVG 24Hr	4	0	1766	1768	0	0	0	0	1768	0	16984	810	17796	0	17756	0	17756	35552	37322
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.																			1.31
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.																			



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

		Northbound				Southbound				Eastbound				Westbound						
Time Period		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
11:30	11:45	0	0	26	26	0	0	0	0	26	0	329	16	345	0	375	0	375	720	746
11:45	12:00	0	0	40	40	0	0	0	0	40	0	368	22	390	0	376	0	376	766	806
12:00	12:15	0	0	37	37	0	0	0	0	37	0	343	13	356	0	362	0	362	718	755
08:30	08:45	0	0	15	15	0	0	0	0	15	0	144	3	147	0	202	0	202	349	364
08:45	09:00	0	0	12	12	0	0	0	0	12	0	155	5	161	0	224	0	224	385	397
09:00	09:15	0	0	25	25	0	0	0	0	25	0	186	5	191	0	215	0	215	406	431
09:15	09:30	0	0	17	17	0	0	0	0	17	0	196	8	204	0	256	0	256	460	477
09:30	09:45	0	0	23	23	0	0	0	0	23	0	247	6	253	0	261	0	261	514	537
09:45	10:00	0	0	18	18	0	0	0	0	18	0	222	6	228	0	302	0	302	530	548
08:15	08:30	0	0	13	13	0	0	0	0	13	0	106	2	108	0	155	0	155	263	276
12:15	12:30	0	0	33	33	0	0	0	0	33	0	381	22	403	0	378	0	378	781	814
12:30	12:45	0	0	35	35	0	0	0	0	35	0	342	17	359	0	368	0	368	727	762
12:45	13:00	0	0	33	33	0	0	0	0	33	0	362	22	384	0	376	0	376	760	793
13:00	13:15	0	0	30	30	0	0	0	0	30	0	348	19	367	0	349	0	349	716	746
13:15	13:30	0	0	51	51	0	0	0	0	51	0	384	21	405	0	401	0	401	806	857
15:00	15:15	0	0	35	35	0	0	0	0	35	0	343	16	359	0	369	0	369	728	763
15:15	15:30	1	0	28	29	0	0	0	0	29	0	352	21	373	0	395	0	395	768	797
15:30	15:45	0	0	36	36	0	0	0	0	36	0	359	13	372	0	334	0	334	706	742
15:45	16:00	0	0	41	41	0	0	0	0	41	0	350	17	367	0	320	0	320	687	728
16:00	16:15	0	0	33	33	0	0	0	0	33	0	344	10	354	0	309	0	309	663	696
16:15	16:30	0	0	21	21	0	0	0	0	21	0	331	14	345	0	295	0	295	640	661
16:30	16:45	0	0	33	33	0	0	0	0	33	0	338	12	351	0	309	0	309	660	693
16:45	17:00	1	0	53	54	0	0	0	0	54	0	345	23	368	0	340	0	340	708	762
17:00	17:15	0	0	36	36	0	0	0	0	36	0	335	24	359	0	299	0	299	658	694
17:15	17:30	0	0	48	48	0	0	0	0	48	0	315	18	333	0	293	0	293	626	674
17:30	17:45	0	0	40	40	0	0	0	0	40	0	292	24	316	0	253	0	253	569	609
17:45	18:00	0	0	36	36	0	0	0	0	36	0	306	16	322	0	268	0	268	590	626
07:00	07:15	0	0	2	2	0	0	0	0	2	0	31	4	35	0	87	0	87	122	124
07:15	07:30	0	0	7	7	0	0	0	0	7	0	56	3	59	0	72	0	72	131	138
07:30	07:45	0	0	3	3	0	0	0	0	3	0	63	0	63	0	93	0	93	156	159
07:45	08:00	0	0	14	14	0	0	0	0	14	0	99	1	100	0	116	0	116	216	230
08:00	08:15	0	0	7	7	0	0	0	0	7	0	107	1	108	0	113	0	113	221	228
Total:		2	0	881	883	0	0	0	0	883	0	8479	404	8885	0	8865	0	8865	17750	18,633

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
11:30	11:45	0	0	0	1	2	3	3
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	1	1	2	2
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	1	1	2	2
09:30	09:45	0	0	0	1	0	1	1
09:45	10:00	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	0	0	0
12:15	12:30	0	0	0	1	0	1	1
12:30	12:45	0	0	0	1	1	2	2
12:45	13:00	0	0	0	1	0	1	1
13:00	13:15	0	0	0	1	0	1	1
13:15	13:30	0	0	0	0	1	1	1
15:00	15:15	0	0	0	1	0	1	1
15:15	15:30	0	0	0	1	2	3	3
15:30	15:45	0	0	0	0	1	1	1
15:45	16:00	0	0	0	1	0	1	1
16:00	16:15	0	0	0	0	3	3	3
16:15	16:30	0	0	0	2	0	2	2
16:30	16:45	0	0	0	0	2	2	2
16:45	17:00	0	0	0	0	1	1	1
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	2	2	2
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	1	0	1	1
07:30	07:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	1	1	1
08:00	08:15	0	0	0	1	0	1	1
Total		0	0	0	15	18	33	33



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
11:30 11:45	2	0	2	0	0	0	2
11:45 12:00	5	0	5	0	0	0	5
12:00 12:15	3	0	3	0	0	0	3
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	1	0	1	0	0	0	1
09:15 09:30	3	0	3	0	0	0	3
09:30 09:45	1	0	1	0	0	0	1
09:45 10:00	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
12:15 12:30	1	0	1	0	0	0	1
12:30 12:45	0	0	0	0	0	0	0
12:45 13:00	5	0	5	0	0	0	5
13:00 13:15	2	0	2	0	1	1	3
13:15 13:30	1	0	1	0	0	0	1
15:00 15:15	4	0	4	0	0	0	4
15:15 15:30	6	0	6	0	0	0	6
15:30 15:45	1	0	1	0	0	0	1
15:45 16:00	5	0	5	0	1	1	6
16:00 16:15	0	0	0	0	0	0	0
16:15 16:30	3	0	3	0	0	0	3
16:30 16:45	3	0	3	0	0	0	3
16:45 17:00	4	0	4	0	0	0	4
17:00 17:15	4	0	4	0	0	0	4
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	11	0	11	0	0	0	11
17:45 18:00	1	0	1	0	1	1	2
07:00 07:15	1	0	1	0	0	0	1
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	1	0	1	0	1	1	2
07:45 08:00	0	0	0	0	0	0	0
08:00 08:15	1	0	1	0	0	0	1
Total	69	0	69	0	4	4	73



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

Time Period		Northbound			N TOT	Southbound			S TOT	STR TOT	Eastbound			E TOT	Westbound			W TOT	STR TOT	Grand Total
		LT	ST	RT		LT	ST	RT			LT	ST	RT		LT	ST	RT			
11:30	11:45	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6	6
11:45	12:00	0	0	1	1	0	0	0	0	1	0	2	0	2	0	4	0	4	6	7
12:00	12:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6	6
08:30	08:45	0	0	1	1	0	0	0	0	1	0	4	0	4	0	0	0	0	4	5
08:45	09:00	0	0	0	0	0	0	0	0	0	0	4	0	4	0	1	0	1	5	5
09:00	09:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5	5
09:15	09:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5	5
09:30	09:45	0	0	0	0	0	0	0	0	0	0	5	0	5	0	1	0	1	6	6
09:45	10:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7	7
08:15	08:30	0	0	1	1	0	0	0	0	1	0	3	0	3	0	2	0	2	5	6
12:15	12:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
12:30	12:45	0	0	0	0	0	0	0	0	0	0	2	0	2	0	5	0	5	7	7
12:45	13:00	0	0	0	0	0	0	0	0	0	0	4	1	5	0	3	0	3	8	8
13:00	13:15	0	0	0	0	0	0	0	0	0	0	4	0	4	0	3	0	3	7	7
13:15	13:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3	3
15:00	15:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3	3
15:15	15:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	1	0	1	3	3
15:30	15:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
15:45	16:00	0	0	0	0	0	0	0	0	0	0	3	0	3	0	4	0	4	7	7
16:00	16:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3	3
16:15	16:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
16:30	16:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4	4
16:45	17:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
17:00	17:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	2	2
17:15	17:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3	3
17:30	17:45	0	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5	5
17:45	18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
07:00	07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1
07:15	07:30	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3	3
07:30	07:45	0	0	0	0	0	0	0	0	0	0	1	0	1	0	3	0	3	4	4
07:45	08:00	0	0	0	0	0	0	0	0	0	0	2	0	2	0	2	0	2	4	4
08:00	08:15	0	0	1	1	0	0	0	0	1	0	5	0	5	0	2	0	2	7	8
Total:	None	0	0	4	4	0	0	0	0	4	0	72	1	73	0	69	0	69	142	146



Transportation Services - Traffic Services

Turning Movement Count - Study Results

Innes Rd @ 113m west of Lanthier_Prestwick

Survey Date: Saturday, October 12, 2024

WO No: 42058

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
11:30	11:45	0	0	0	0	0
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	1	0	1
09:00	09:15	0	0	0	0	0
09:15	09:30	0	0	0	0	0
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	0	0	0
08:15	08:30	0	0	0	0	0
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	0	0	0
15:15	15:30	0	0	0	0	0
15:30	15:45	0	0	0	0	0
15:45	16:00	0	0	0	0	0
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	0	0	0
16:30	16:45	0	0	1	0	1
16:45	17:00	0	0	0	0	0
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	0	0	0
17:30	17:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
07:45	08:00	0	0	0	0	0
08:00	08:15	0	0	0	0	0
Total		0	0	2	0	2

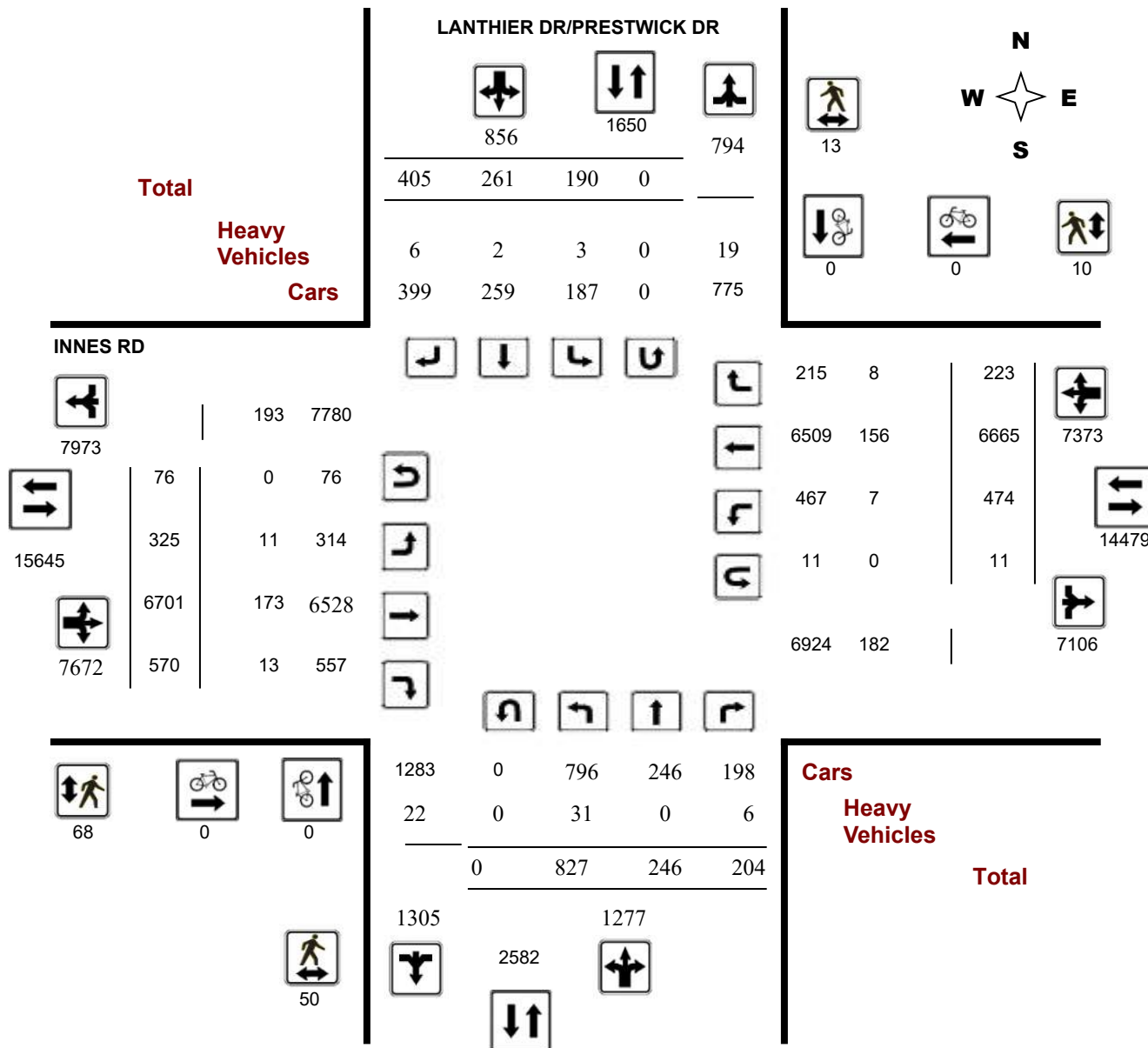
Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study Diagram



Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

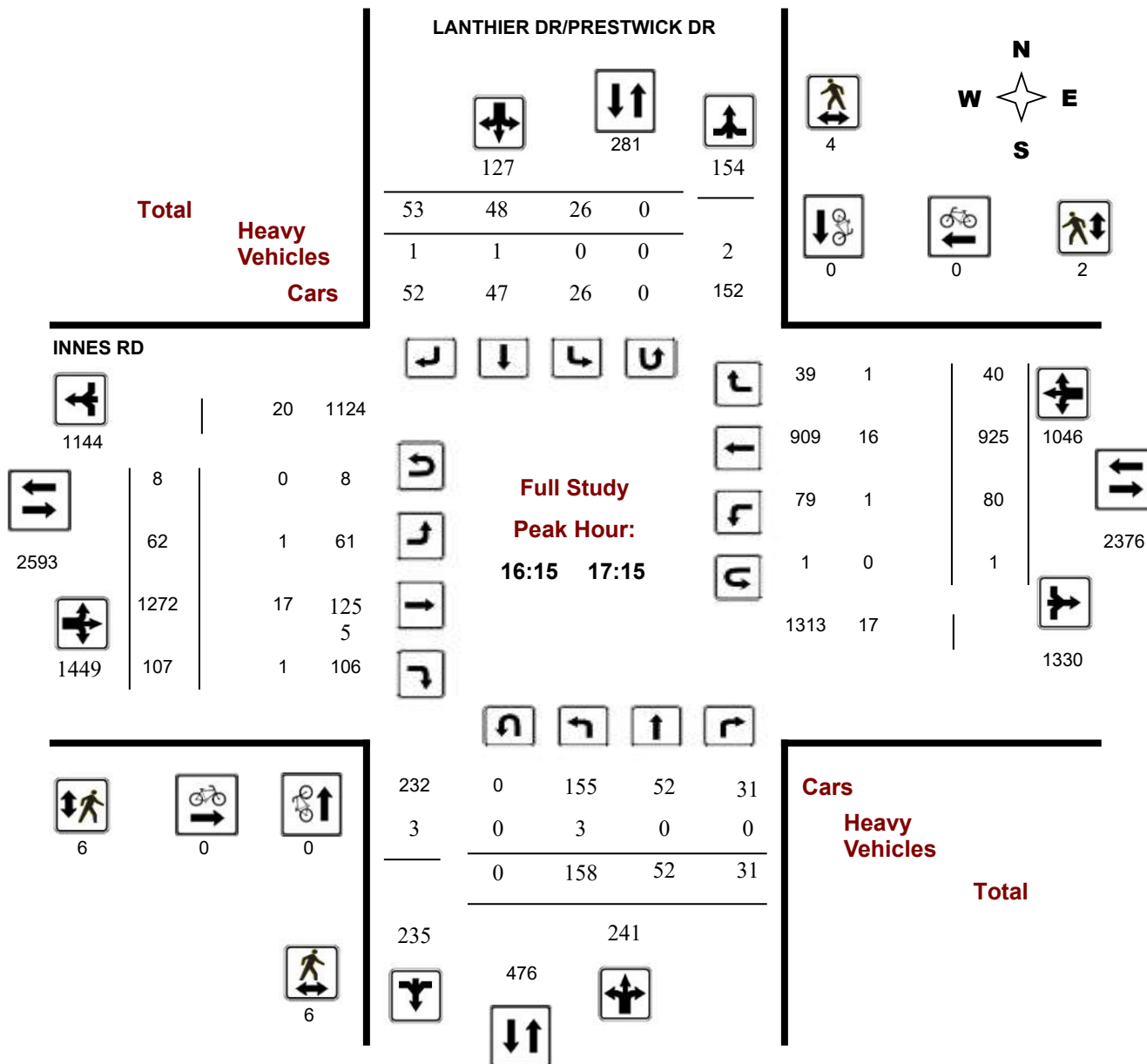
Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

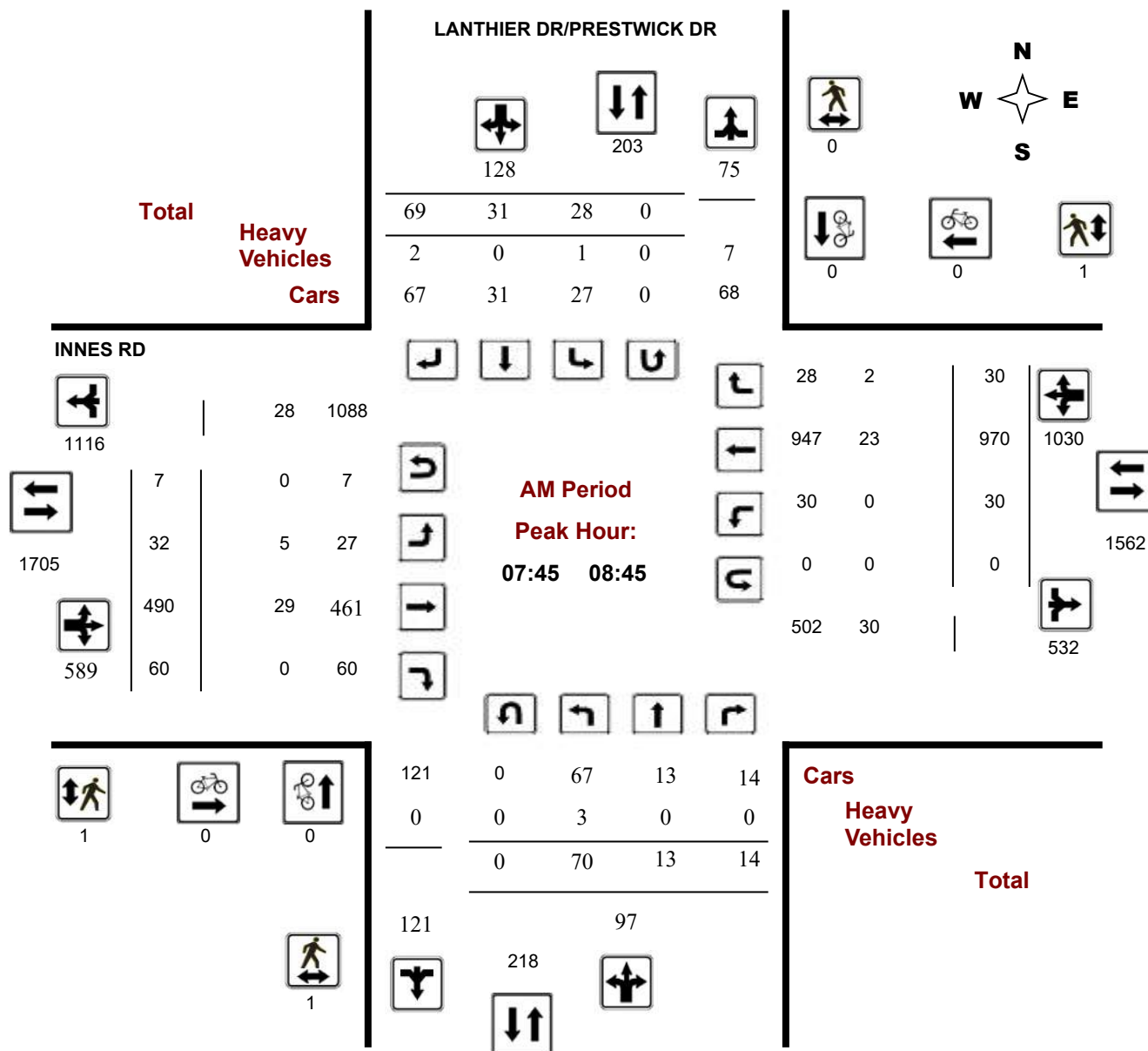
Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



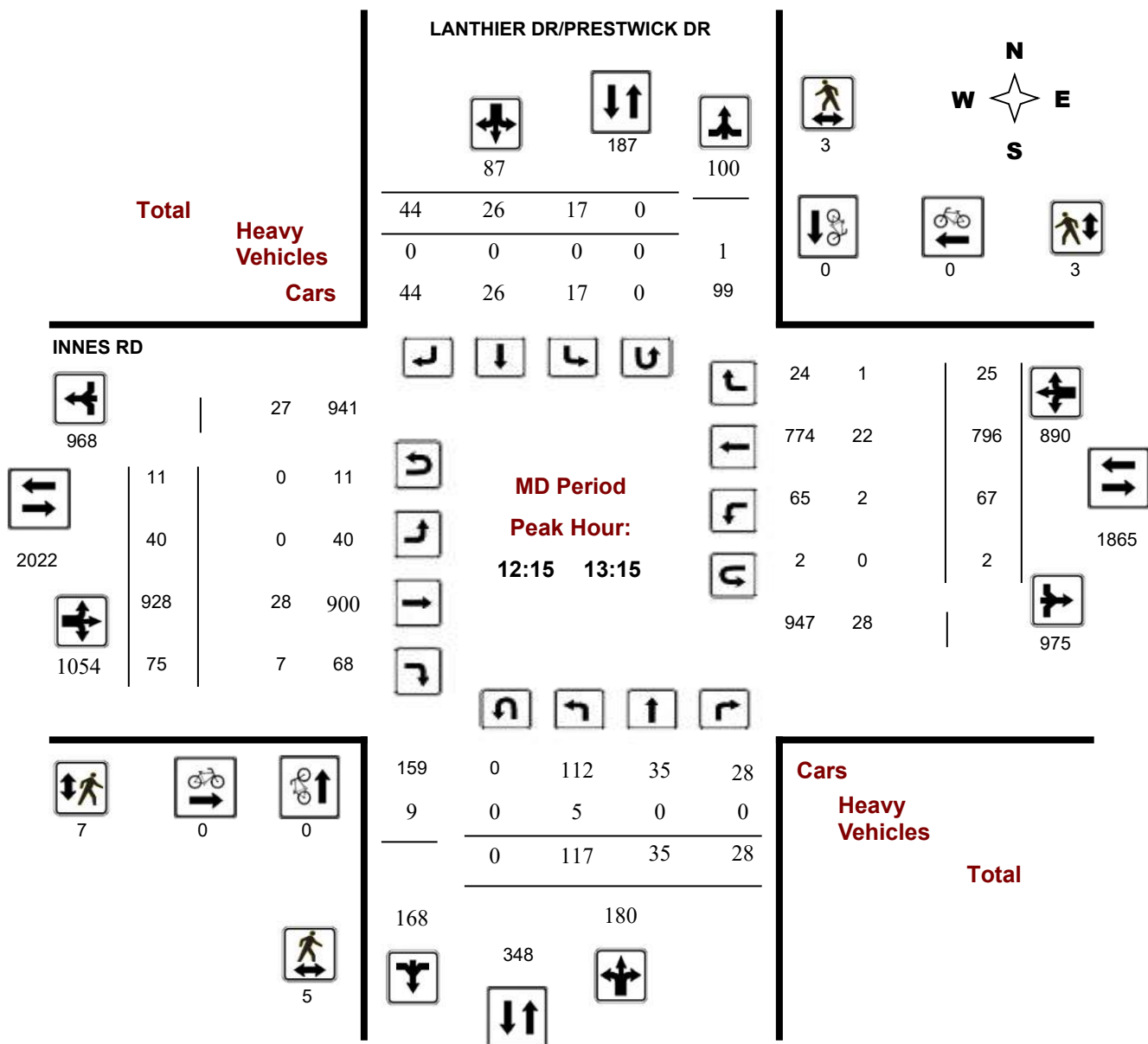
Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



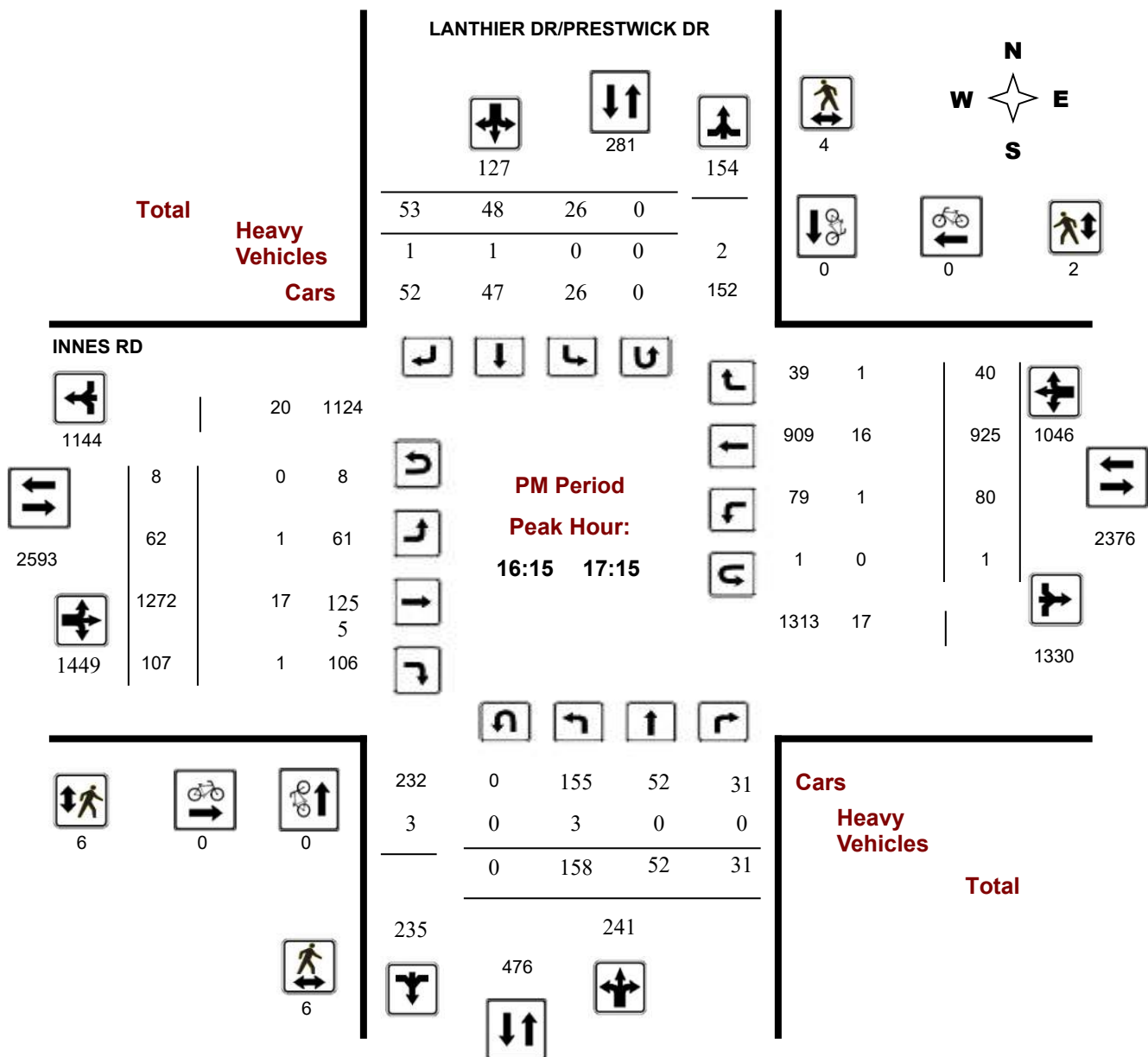
Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, February 23, 2023

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0
Eastbound: 76 Westbound: 11
.90

LANTHIER DR/PRESTWICK DR

INNES RD

Period		Northbound				Southbound				Eastbound				Westbound				STR TOT	Grand Total				
		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT						
07:00	08:00	40	8	5	53	16	14	75	105	158	19	383	37	439	25	946	16	987	1426	1584			
08:00	09:00	74	12	15	101	22	30	61	113	214	33	513	70	616	34	908	29	971	1587	1801			
09:00	10:00	76	13	17	106	22	16	42	80	186	15	498	60	573	56	673	26	755	1328	1514			
11:30	12:30	125	38	32	195	25	36	40	101	296	45	827	70	942	60	735	22	817	1759	2055			
12:30	13:30	111	29	26	166	20	24	46	90	256	41	895	71	1007	73	764	25	862	1869	2125			
15:00	16:00	123	45	38	206	26	55	41	122	328	51	1115	77	1243	77	872	31	980	2223	2551			
16:00	17:00	144	49	34	227	28	37	57	122	349	65	1290	97	1452	76	905	42	1023	2475	2824			
17:00	18:00	134	52	37	223	31	49	43	123	346	56	1180	88	1324	73	862	32	967	2291	2637			
Sub Total		827	246	204	1277	190	261	405	856	2133	325	6701	570	7596	474	6665	223	7362	14958	17091			
U Turns		0				0				0				76				11				87	87
Total		827	246	204	1277	190	261	405	856	2133	325	6701	570	7672	474	6665	223	7373	15045	17178			
EQ 12Hr		1150	342	284	1775	264	363	563	1190	2965	452	9314	792	10664	659	9264	310	10248	20913	23877			
Note: These values are calculated by multiplying the totals by the appropriate expansion factor.														1.39									
AVG 12Hr		1035	308	256	1598	238	428	664	1071	2668	407	8383	713	9598	593	8338	279	9223	18822	21489			
Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.														.90									
AVG 24Hr		1356	403	335	2093	312	561	870	1403	3495	533	10982	934	12573	777	10923	365	12082	24657	28151			
Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.														1.31									
Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.																							



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

LANTHIER DR/PRESTWICK DR

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
07:00	07:15	5	1	2	8	1	0	14	15	23	2	61	12	76	3	180	1	184	260	283
07:15	07:30	11	3	1	15	4	3	19	26	41	5	82	5	93	5	234	5	244	337	378
07:30	07:45	7	1	1	9	1	3	22	26	35	5	115	9	129	6	267	3	276	405	440
17:45	18:00	29	12	9	50	9	10	8	27	77	6	254	17	277	18	215	8	241	518	595
07:45	08:00	17	3	1	21	10	8	20	38	59	7	125	11	144	11	265	7	283	427	486
08:00	08:15	19	0	2	21	2	6	17	25	46	10	104	20	136	7	240	4	251	387	433
08:15	08:30	16	4	5	25	6	9	17	32	57	9	128	11	151	5	258	6	269	420	477
08:30	08:45	18	6	6	30	10	8	15	33	63	6	133	18	158	7	207	13	227	385	448
08:45	09:00	21	2	2	25	4	7	12	23	48	8	148	21	182	15	203	6	225	407	455
09:00	09:15	19	4	4	27	1	3	12	16	43	4	109	17	133	5	197	10	212	345	388
09:15	09:30	22	4	3	29	6	6	14	26	55	4	139	21	168	10	153	8	173	341	396
09:30	09:45	19	1	5	25	9	3	4	16	41	4	120	9	133	21	145	4	170	303	344
09:45	10:00	16	4	5	25	6	4	12	22	47	3	130	13	150	20	178	4	203	353	400
11:30	11:45	28	4	10	42	3	5	16	24	66	6	201	12	224	14	167	3	184	408	474
11:45	12:00	31	7	8	46	11	13	8	32	78	20	210	27	262	16	192	6	214	476	554
12:15	12:30	31	10	7	48	3	9	9	21	69	9	227	17	256	15	197	4	217	473	542
12:30	12:45	26	9	3	38	4	5	8	17	55	14	228	16	258	17	217	6	240	498	553
12:45	13:00	32	9	7	48	2	4	18	24	72	9	248	24	283	20	190	10	220	503	575
13:00	13:15	28	7	11	46	8	8	9	25	71	8	225	18	257	15	192	5	213	470	541
13:15	13:30	25	4	5	34	6	7	11	24	58	10	194	13	218	21	165	4	190	408	466
15:00	15:15	31	8	8	47	5	10	14	29	76	7	278	23	310	11	209	6	226	536	612
15:15	15:30	31	15	11	57	9	19	9	37	94	14	263	19	300	15	225	13	253	553	647
15:30	15:45	31	8	8	47	5	9	9	23	70	14	282	12	310	16	207	5	228	538	608
15:45	16:00	30	14	11	55	7	17	9	33	88	16	292	23	337	35	231	7	273	610	698
16:00	16:15	32	14	11	57	7	5	16	28	85	21	326	20	372	20	208	14	244	616	701
16:15	16:30	43	8	9	60	8	9	15	32	92	11	318	30	360	14	220	12	246	606	698
16:30	16:45	37	13	7	57	8	7	17	32	89	15	345	28	391	19	211	10	240	631	720
16:45	17:00	32	14	7	53	5	16	9	30	83	18	301	19	340	23	266	6	295	635	718
17:00	17:15	46	17	8	71	5	16	12	33	104	18	308	30	358	24	228	12	265	623	727
17:15	17:30	36	14	14	64	10	9	8	27	91	18	329	22	369	15	212	7	235	604	695
17:30	17:45	23	9	6	38	7	14	15	36	74	14	289	19	323	16	207	5	228	551	625
12:00	12:15	35	17	7	59	8	9	7	24	83	10	189	14	214	15	179	9	204	418	501
Total:		827	246	204	1277	190	261	405	856	2133	325	6701	570	7672	474	6665	223	7373	15045	17,178

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

LANTHIER DR/PRESTWICK DR

INNES RD

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

LANTHIER DR/PRESTWICK DR

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	1	0	1	1	0	1	2
07:15 07:30	1	0	1	0	0	0	1
07:30 07:45	4	0	4	0	0	0	4
17:45 18:00	0	0	0	1	0	1	1
07:45 08:00	0	0	0	1	1	2	2
08:00 08:15	0	0	0	0	0	0	0
08:15 08:30	0	0	0	0	0	0	0
08:30 08:45	1	0	1	0	0	0	1
08:45 09:00	0	0	0	0	0	0	0
09:00 09:15	3	0	3	2	0	2	5
09:15 09:30	1	0	1	3	1	4	5
09:30 09:45	0	0	0	2	0	2	2
09:45 10:00	0	1	1	3	0	3	4
11:30 11:45	3	0	3	3	1	4	7
11:45 12:00	3	1	4	3	1	4	8
12:15 12:30	1	2	3	2	0	2	5
12:30 12:45	2	0	2	1	1	2	4
12:45 13:00	2	1	3	2	1	3	6
13:00 13:15	0	0	0	2	1	3	3
13:15 13:30	1	0	1	3	0	3	4
15:00 15:15	4	1	5	5	0	5	10
15:15 15:30	3	0	3	10	0	10	13
15:30 15:45	5	1	6	6	1	7	13
15:45 16:00	1	1	2	4	0	4	6
16:00 16:15	6	0	6	5	0	5	11
16:15 16:30	1	1	2	2	0	2	4
16:30 16:45	3	2	5	2	1	3	8
16:45 17:00	1	0	1	0	0	0	1
17:00 17:15	1	1	2	2	1	3	5
17:15 17:30	0	1	1	0	0	0	1
17:30 17:45	1	0	1	2	0	2	3
12:00 12:15	1	0	1	1	0	1	2
Total	50	13	63	68	10	78	141



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

LANTHIER DR/PRESTWICK DR

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	0	1	1	0	0	0	0	1	0	10	0	10	0	4	0	4	14	15
07:15 07:30	2	0	0	2	0	0	0	0	2	0	5	0	5	0	5	2	7	12	14
07:30 07:45	1	0	0	1	0	0	1	1	2	0	4	0	4	1	3	0	4	8	10
17:45 18:00	1	0	1	2	0	0	0	0	2	0	4	0	4	0	1	0	1	5	7
07:45 08:00	1	0	0	1	0	0	2	2	3	1	0	0	1	0	6	0	6	7	10
08:00 08:15	0	0	0	0	0	0	0	0	0	2	5	0	7	0	4	1	5	12	12
08:15 08:30	2	0	0	2	0	0	0	0	2	1	16	0	17	0	7	1	8	25	27
08:30 08:45	0	0	0	0	1	0	0	1	1	1	8	0	9	0	6	0	6	15	16
08:45 09:00	1	0	0	1	0	0	0	0	1	0	11	0	11	0	6	0	6	17	18
09:00 09:15	0	0	1	1	0	0	0	0	1	0	4	0	4	0	5	0	5	9	10
09:15 09:30	3	0	0	3	0	0	1	1	4	1	2	0	3	0	4	0	4	7	11
09:30 09:45	0	0	0	0	0	0	1	1	1	0	4	0	4	1	6	0	7	11	12
09:45 10:00	1	0	1	2	0	0	0	0	2	1	4	1	6	1	2	0	3	9	11
11:30 11:45	1	0	0	1	0	1	0	1	2	2	6	1	9	0	4	0	4	13	15
11:45 12:00	1	0	1	2	0	0	0	0	2	1	3	1	5	0	9	0	9	14	16
12:15 12:30	1	0	0	1	0	0	0	0	1	0	7	1	8	0	3	0	3	11	12
12:30 12:45	0	0	0	0	0	0	0	0	0	0	7	2	9	0	9	0	9	18	18
12:45 13:00	4	0	0	4	0	0	0	0	4	0	6	2	8	1	6	0	7	15	19
13:00 13:15	0	0	0	0	0	0	0	0	0	0	8	2	10	1	4	1	6	16	16
13:15 13:30	2	0	1	3	0	0	0	0	3	0	8	1	9	1	10	1	12	21	24
15:00 15:15	1	0	0	1	0	0	0	0	1	0	5	0	5	0	7	0	7	12	13
15:15 15:30	0	0	0	0	0	0	0	0	0	0	6	0	6	0	5	0	5	11	11
15:30 15:45	1	0	0	1	0	0	0	0	1	0	5	0	5	0	4	0	4	9	10
15:45 16:00	1	0	0	1	0	0	0	0	1	0	3	0	3	0	7	0	7	10	11
16:00 16:15	2	0	0	2	0	0	0	0	2	0	5	1	6	0	2	0	2	8	10
16:15 16:30	1	0	0	1	0	0	1	1	2	1	4	1	6	0	4	1	5	11	13
16:30 16:45	2	0	0	2	0	1	0	1	3	0	4	0	4	0	4	0	4	8	11
16:45 17:00	0	0	0	0	0	0	0	0	0	0	4	0	4	1	3	0	4	8	8
17:00 17:15	0	0	0	0	0	0	0	0	0	0	5	0	5	0	5	0	5	10	10
17:15 17:30	2	0	0	2	0	0	0	0	2	0	0	0	0	0	1	0	1	1	3
17:30 17:45	0	0	0	0	0	0	0	0	0	0	4	0	4	0	4	0	4	8	8
12:00 12:15	0	0	0	0	2	0	0	2	2	0	6	0	6	0	6	1	7	13	15
Total: None	31	0	6	37	3	2	6	11	48	11	173	13	197	7	156	8	171	368	416



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Thursday, February 23, 2023

WO No: 40865

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

LANTHIER DR/PRESTWICK DR

INNES RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	1	0	1
07:15	07:30	0	0	1	0	1
07:30	07:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
07:45	08:00	0	0	1	0	1
08:00	08:15	0	0	2	0	2
08:15	08:30	0	0	3	0	3
08:30	08:45	0	0	1	0	1
08:45	09:00	0	0	5	1	6
09:00	09:15	0	0	3	0	3
09:15	09:30	0	0	4	2	6
09:30	09:45	0	0	0	0	0
09:45	10:00	0	0	4	1	5
11:30	11:45	0	0	5	0	5
11:45	12:00	0	0	5	0	5
12:15	12:30	0	0	3	1	4
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	2	0	2
13:00	13:15	0	0	6	1	7
13:15	13:30	0	0	1	0	1
15:00	15:15	0	0	2	0	2
15:15	15:30	0	0	4	0	4
15:30	15:45	0	0	2	0	2
15:45	16:00	0	0	6	0	6
16:00	16:15	0	0	5	2	7
16:15	16:30	0	0	1	0	1
16:30	16:45	0	0	3	0	3
16:45	17:00	0	0	2	0	2
17:00	17:15	0	0	2	1	3
17:15	17:30	0	0	0	1	1
17:30	17:45	0	0	1	0	1
12:00	12:15	0	0	1	1	2
Total		0	0	76	11	87

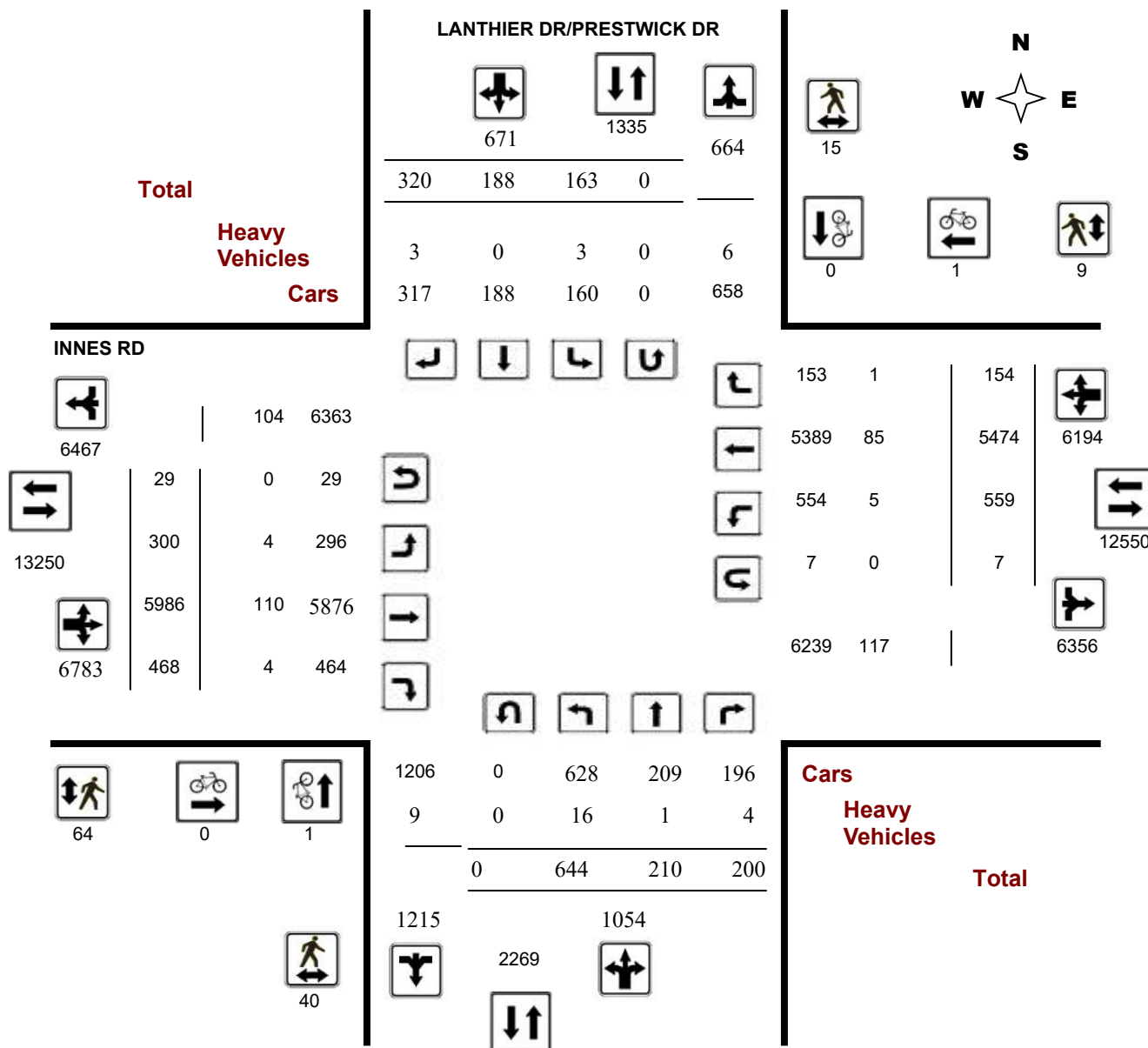
Survey Date: Saturday, March 04, 2023

Start Time: 07:00

WO No: 40835

Device: Miovision

Full Study Diagram



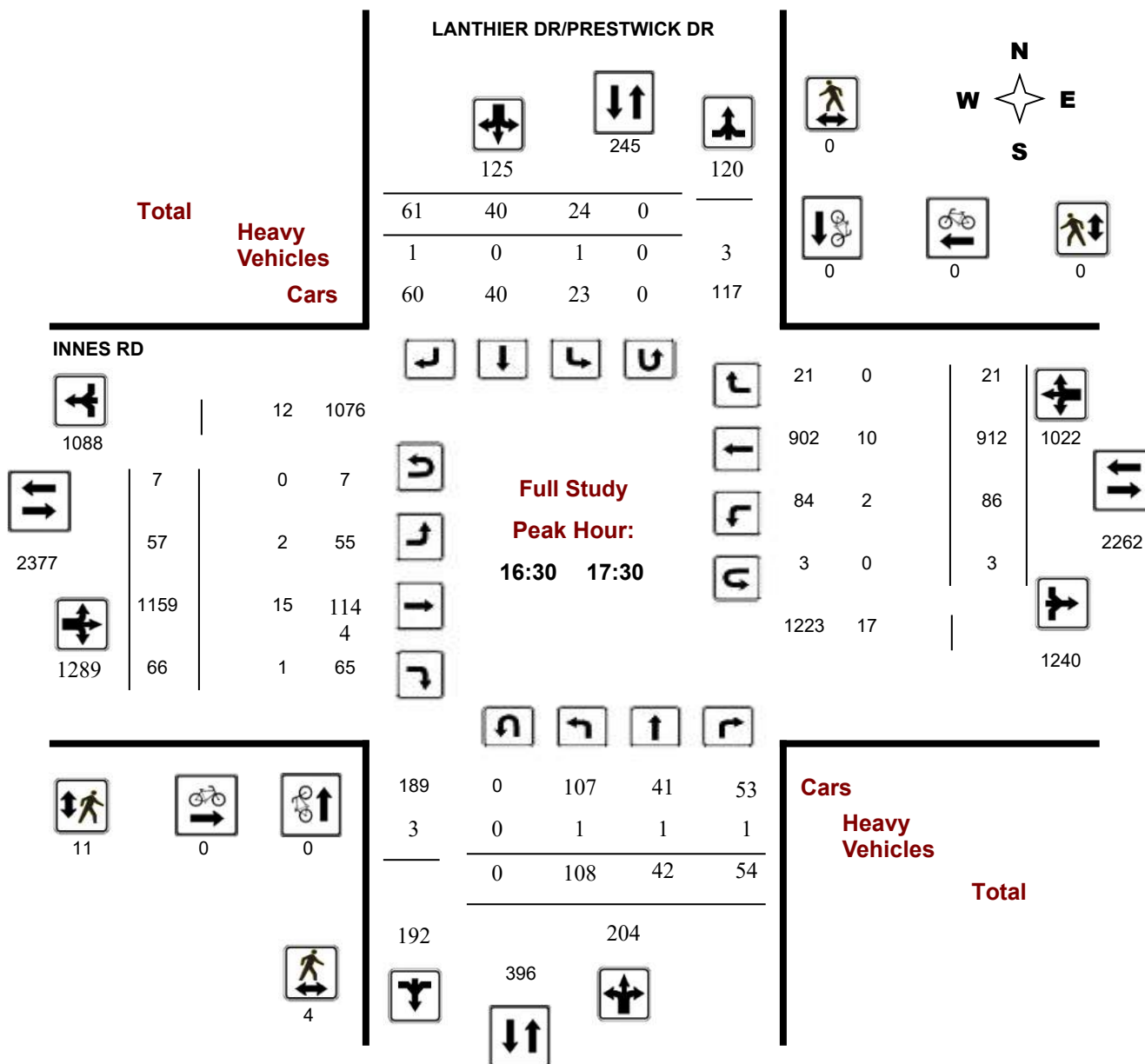
Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study Peak Hour Diagram



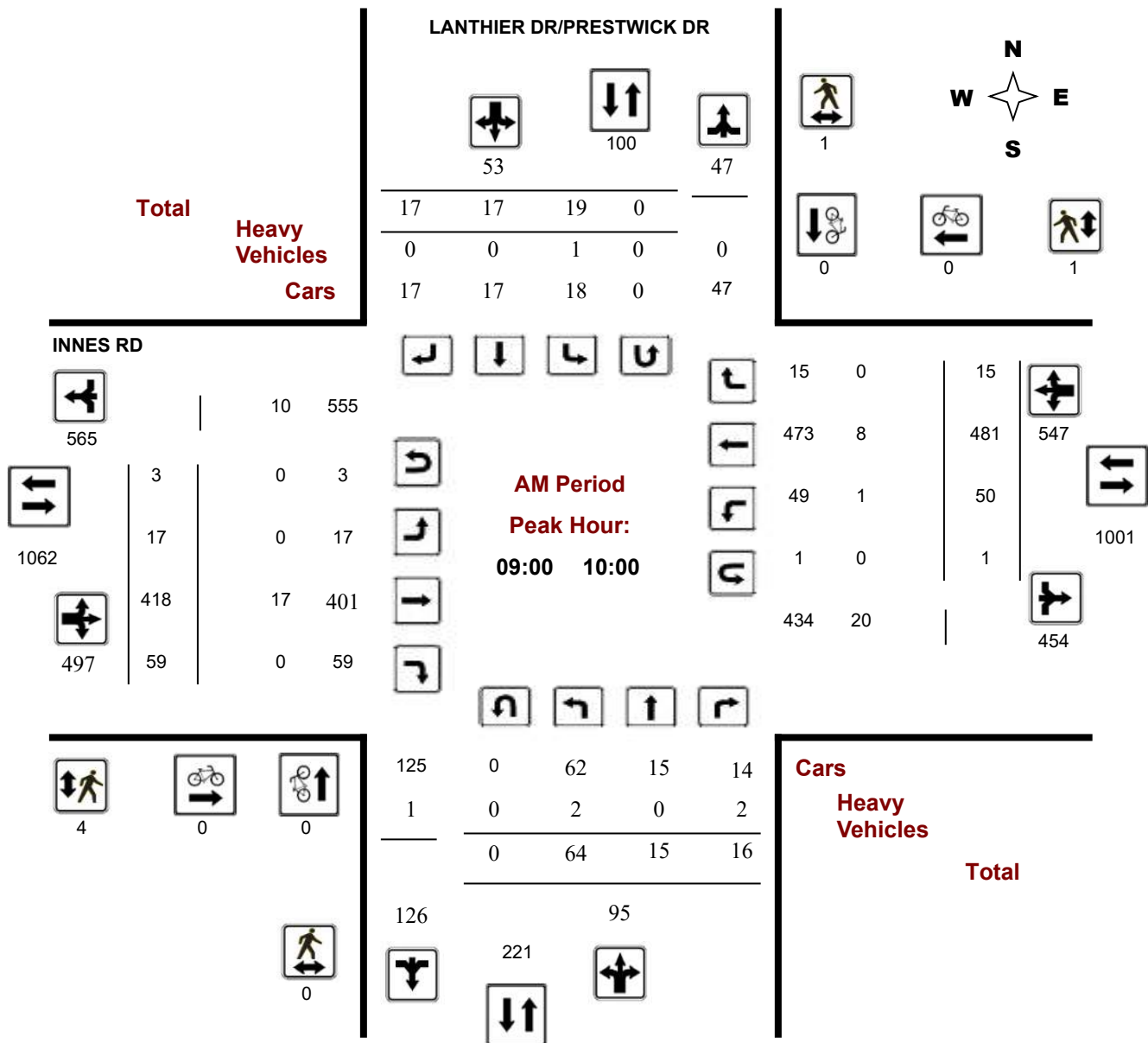
Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

AM Period Peak Hour Diagram



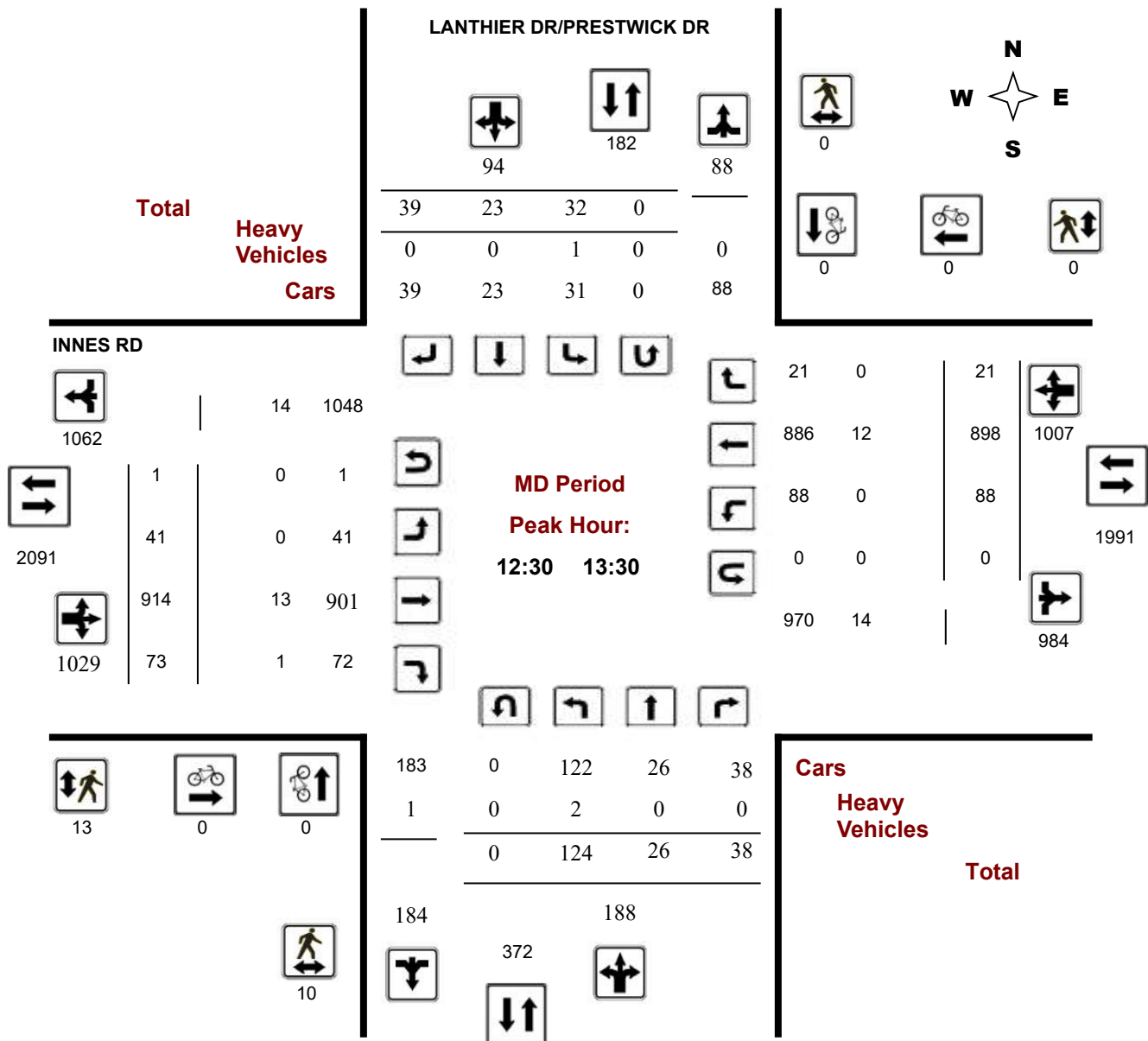
Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



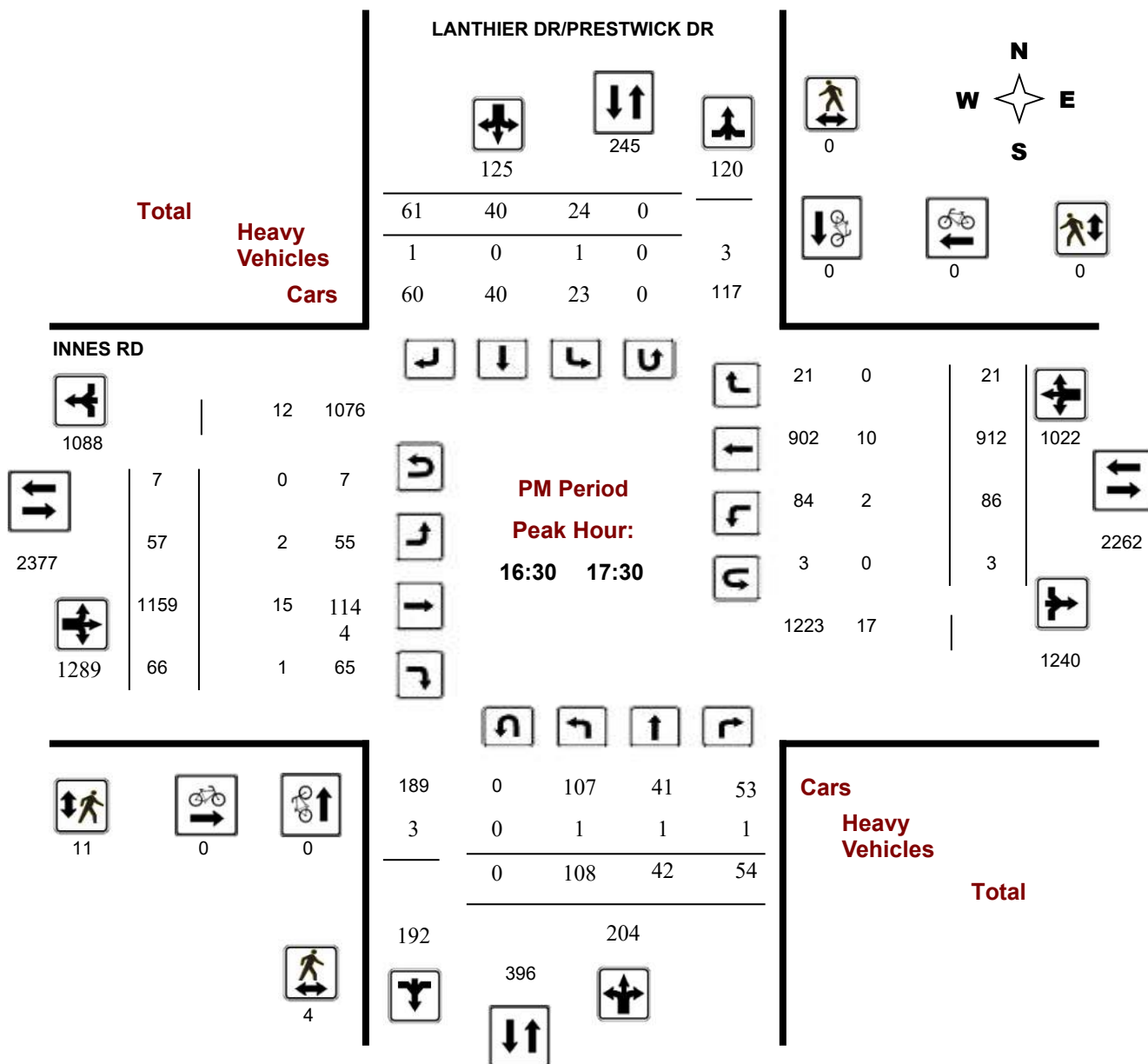
Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

PM Period Peak Hour Diagram





Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Saturday, March 04, 2023

Total Observed U-Turns

AADT Factor

Northbound: 0 Southbound: 0

1.10

Eastbound: 29 Westbound: 7

LANTHIER DR/PRESTWICK DR

INNES RD

		Northbound				Southbound				Eastbound				Westbound						
Period		LT	ST	RT	NB TOT	LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT	LT	ST	RT	WB TOT	STR TOT	Grand Total
07:00	08:00	12	5	5	22	10	14	27	51	73	9	187	18	214	26	229	10	265	479	552
08:00	09:00	25	8	7	40	11	12	23	46	86	18	295	60	373	40	409	14	463	836	922
09:00	10:00	64	15	16	95	19	17	17	53	148	17	418	59	494	50	481	15	546	1040	1188
11:30	12:30	110	40	26	176	16	22	46	84	260	45	790	70	905	90	776	25	891	1796	2056
12:30	13:30	124	26	38	188	32	23	39	94	282	41	914	73	1028	88	898	21	1007	2035	2317
15:00	16:00	118	37	34	189	25	32	56	113	302	56	1094	63	1213	84	913	21	1018	2231	2533
16:00	17:00	109	38	39	186	24	38	59	121	307	58	1102	67	1227	86	909	23	1018	2245	2552
17:00	18:00	82	41	35	158	26	30	53	109	267	56	1186	58	1300	95	859	25	979	2279	2546
Sub Total		644	210	200	1054	163	188	320	671	1725	300	5986	468	6754	559	5474	154	6187	12941	14666
U Turns		0				0				0	29				7				36	36
Total		644	210	200	1054	163	188	320	671	1725	300	5986	468	6783	559	5474	154	6194	12977	14702
EQ 12Hr		895	292	278	1465	227	261	445	933	2398	417	8321	651	9428	777	7609	214	8610	18038	20436

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr	985	321	306	1612	250	377	641	1026	2638	459	9153	716	10371	855	8370	235	9471	19842	22480
-----------------	-----	-----	-----	------	-----	-----	-----	------	------	-----	------	-----	-------	-----	------	-----	------	-------	-------

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.10

AVG 24Hr	1290	421	401	2112	328	494	840	1344	3456	601	11990	938	13586	1120	10965	308	12407	25993	29449
-----------------	------	-----	-----	------	-----	-----	-----	------	------	-----	-------	-----	-------	------	-------	-----	-------	-------	-------

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

LANTHIER DR/PRESTWICK DR

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	2	0	0	2	2	1	6	9	11	0	36	3	39	7	45	5	57	96	107
07:15 07:30	2	2	2	6	4	2	3	9	15	2	37	3	42	7	42	3	52	94	109
07:30 07:45	2	2	1	5	3	6	6	15	20	2	56	3	61	6	66	0	72	133	153
11:30 11:45	21	13	9	43	2	5	11	18	61	6	189	17	212	25	201	4	230	442	503
17:45 18:00	24	10	3	37	9	10	15	34	71	14	304	16	334	24	215	8	247	581	652
07:45 08:00	6	1	2	9	1	5	12	18	27	5	58	9	73	6	76	2	84	157	184
08:00 08:15	4	3	2	9	2	1	6	9	18	5	50	18	73	13	97	5	115	188	206
08:15 08:30	6	0	0	6	5	4	6	15	21	6	76	14	96	8	89	3	100	196	217
08:30 08:45	6	4	4	14	1	3	3	7	21	3	76	10	89	12	110	4	126	215	236
08:45 09:00	9	1	1	11	3	4	8	15	26	4	93	18	117	7	113	2	122	239	265
09:00 09:15	12	2	5	19	4	5	4	13	32	1	93	15	110	17	115	3	135	245	277
09:15 09:30	28	3	2	33	3	3	7	13	46	7	103	12	123	8	86	2	96	219	265
09:30 09:45	8	3	2	13	4	4	2	10	23	3	105	20	128	10	123	4	138	266	289
09:45 10:00	16	7	7	30	8	5	4	17	47	6	117	12	136	15	157	6	178	314	361
11:45 12:00	30	9	7	46	6	6	14	26	72	8	206	15	230	24	199	6	229	459	531
12:00 12:15	29	7	4	40	2	9	12	23	63	13	192	22	229	18	208	9	235	464	527
12:15 12:30	30	11	6	47	6	2	9	17	64	18	203	16	238	23	168	6	197	435	499
12:30 12:45	22	4	9	35	12	5	8	25	60	14	212	17	243	17	202	5	224	467	527
12:45 13:00	34	11	5	50	5	6	4	15	65	11	218	26	255	30	234	5	269	524	589
13:15 13:30	30	7	13	50	7	7	14	28	78	11	246	17	274	25	210	2	237	511	589
15:00 15:15	30	7	14	51	6	9	14	29	80	10	251	18	280	25	215	9	249	529	609
15:15 15:30	37	9	6	52	5	9	11	25	77	12	299	12	326	15	245	3	263	589	666
15:30 15:45	21	16	7	44	10	7	11	28	72	17	265	18	301	29	229	5	263	564	636
15:45 16:00	30	5	7	42	4	7	20	31	73	17	279	15	312	15	224	4	244	556	629
16:00 16:15	26	8	9	43	5	8	13	26	69	17	259	12	288	25	223	7	257	545	614
16:15 16:30	17	10	3	30	6	5	15	26	56	14	295	19	330	17	217	5	239	569	625
16:30 16:45	33	8	20	61	8	13	14	35	96	10	270	17	299	27	230	7	265	564	660
16:45 17:00	33	12	7	52	5	12	17	34	86	17	278	19	316	17	239	4	260	576	662
17:00 17:15	25	13	14	52	6	6	14	26	78	14	294	14	322	16	215	8	239	561	639
17:15 17:30	17	9	13	39	5	9	16	30	69	16	317	16	352	26	228	2	258	610	679
17:30 17:45	16	9	5	30	6	5	8	19	49	12	271	12	298	29	201	7	237	535	584
13:00 13:15	38	4	11	53	8	5	13	26	79	5	238	13	257	16	252	9	277	534	613
Total:	644	210	200	1054	163	188	320	671	1725	300	5986	468	6783	559	5474	154	6194	12977	14,702

Note: U-Turns are included in Totals.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

LANTHIER DR/PRESTWICK DR

INNES RD

Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	Grand Total
07:00	07:15	0	0	0	0	0	0	0
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	0	0	0	0
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	0	0	0	0	0	0	0
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	0	0	0	0	0	0
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	0	0	0	0	0	0
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	1	0	1	0	1	1	2
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
Total		1	0	1	0	1	1	2



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

LANTHIER DR/PRESTWICK DR

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	1	1	1	0	1	2
07:15 07:30	0	0	0	0	0	0	0
07:30 07:45	0	0	0	0	0	0	0
11:30 11:45	0	2	2	5	1	6	8
17:45 18:00	2	0	2	1	0	1	3
07:45 08:00	1	0	1	0	0	0	1
08:00 08:15	0	0	0	2	0	2	2
08:15 08:30	0	0	0	3	0	3	3
08:30 08:45	0	0	0	0	0	0	0
08:45 09:00	3	0	3	0	0	0	3
09:00 09:15	0	0	0	0	0	0	0
09:15 09:30	0	0	0	0	1	1	1
09:30 09:45	0	0	0	0	0	0	0
09:45 10:00	0	1	1	4	0	4	5
11:45 12:00	0	1	1	3	0	3	4
12:00 12:15	2	2	4	1	2	3	7
12:15 12:30	3	2	5	3	1	4	9
12:30 12:45	1	0	1	2	0	2	3
12:45 13:00	4	0	4	2	0	2	6
13:15 13:30	2	0	2	4	0	4	6
15:00 15:15	1	3	4	2	3	5	9
15:15 15:30	1	0	1	2	0	2	3
15:30 15:45	2	0	2	3	0	3	5
15:45 16:00	4	1	5	2	0	2	7
16:00 16:15	4	0	4	2	0	2	6
16:15 16:30	2	1	3	2	0	2	5
16:30 16:45	0	0	0	3	0	3	3
16:45 17:00	4	0	4	3	0	3	7
17:00 17:15	0	0	0	5	0	5	5
17:15 17:30	0	0	0	0	0	0	0
17:30 17:45	1	1	2	4	1	5	7
13:00 13:15	3	0	3	5	0	5	8
Total	40	15	55	64	9	73	128



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

LANTHIER DR/PRESTWICK DR

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	0	0	0	0	0	0	0	0	0	0	1	0	1	0	2	0	2	3	3
07:15 07:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	2	2
07:30 07:45	1	0	0	1	0	0	0	0	1	0	5	0	5	0	3	0	3	8	9
11:30 11:45	0	0	0	0	0	0	0	0	0	0	6	1	7	0	2	0	2	9	9
17:45 18:00	1	0	0	1	0	0	0	0	1	0	3	0	3	0	0	0	0	3	4
07:45 08:00	1	0	0	1	0	0	0	0	1	0	3	0	3	0	0	0	0	3	4
08:00 08:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5	5
08:15 08:30	0	0	0	0	0	0	0	0	0	1	6	0	7	0	2	0	2	9	9
08:30 08:45	1	0	0	1	0	0	0	0	1	0	5	0	5	0	0	0	0	5	6
08:45 09:00	1	0	0	1	0	0	1	1	2	0	4	0	4	0	4	0	4	8	10
09:00 09:15	0	0	2	2	0	0	0	0	2	0	6	0	6	0	1	0	1	7	9
09:15 09:30	0	0	0	0	0	0	0	0	0	0	5	0	5	1	1	0	2	7	7
09:30 09:45	0	0	0	0	0	0	0	0	0	0	4	0	4	0	4	0	4	8	8
09:45 10:00	2	0	0	2	1	0	0	1	3	0	2	0	2	0	2	0	2	4	7
11:45 12:00	2	0	0	2	0	0	0	0	2	0	5	0	5	0	4	0	4	9	11
12:00 12:15	0	0	0	0	0	0	0	0	0	0	3	0	3	0	3	0	3	6	6
12:15 12:30	0	0	0	0	0	0	0	0	0	0	2	0	2	1	2	0	3	5	5
12:30 12:45	0	0	0	0	0	0	0	0	0	0	2	0	2	0	4	0	4	6	6
12:45 13:00	2	0	0	2	0	0	0	0	2	0	2	1	3	0	3	0	3	6	8
13:15 13:30	0	0	0	0	0	0	0	0	0	0	3	0	3	0	2	0	2	5	5
15:00 15:15	1	0	0	1	0	0	0	0	1	0	3	1	4	1	7	0	8	12	13
15:15 15:30	0	0	1	1	0	0	0	0	1	0	2	0	2	0	5	0	5	7	8
15:30 15:45	0	0	0	0	0	0	0	0	0	0	3	0	3	0	5	1	6	9	9
15:45 16:00	2	0	0	2	0	0	1	1	3	0	5	0	5	0	5	0	5	10	13
16:00 16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2	2
16:15 16:30	1	0	0	1	0	0	0	0	1	1	2	0	3	0	4	0	4	7	8
16:30 16:45	0	0	1	1	1	0	0	1	2	1	1	1	3	1	4	0	5	8	10
16:45 17:00	1	1	0	2	0	0	1	1	3	0	5	0	5	1	1	0	2	7	10
17:00 17:15	0	0	0	0	0	0	0	0	0	1	7	0	8	0	2	0	2	10	10
17:15 17:30	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5	5
17:30 17:45	0	0	0	0	0	0	0	0	0	0	2	0	2	0	3	0	3	5	5
13:00 13:15	0	0	0	0	1	0	0	1	1	0	6	0	6	0	3	0	3	9	10
Total: None	16	1	4	21	3	0	3	6	27	4	110	4	118	5	85	1	91	209	236



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ LANTHIER DR/PRESTWICK DR

Survey Date: Saturday, March 04, 2023

WO No: 40835

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

LANTHIER DR/PRESTWICK DR

INNES RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	0	0	0
07:30	07:45	0	0	0	0	0
11:30	11:45	0	0	0	0	0
17:45	18:00	0	0	0	0	0
07:45	08:00	0	0	1	0	1
08:00	08:15	0	0	0	0	0
08:15	08:30	0	0	0	0	0
08:30	08:45	0	0	0	0	0
08:45	09:00	0	0	2	0	2
09:00	09:15	0	0	1	0	1
09:15	09:30	0	0	1	0	1
09:30	09:45	0	0	0	1	1
09:45	10:00	0	0	1	0	1
11:45	12:00	0	0	1	0	1
12:00	12:15	0	0	2	0	2
12:15	12:30	0	0	1	0	1
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:15	13:30	0	0	0	0	0
15:00	15:15	0	0	1	0	1
15:15	15:30	0	0	3	0	3
15:30	15:45	0	0	1	0	1
15:45	16:00	0	0	1	1	2
16:00	16:15	0	0	0	2	2
16:15	16:30	0	0	2	0	2
16:30	16:45	0	0	2	1	3
16:45	17:00	0	0	2	0	2
17:00	17:15	0	0	0	0	0
17:15	17:30	0	0	3	2	5
17:30	17:45	0	0	3	0	3
13:00	13:15	0	0	1	0	1
Total		0	0	29	7	36

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

Start Time: 07:00

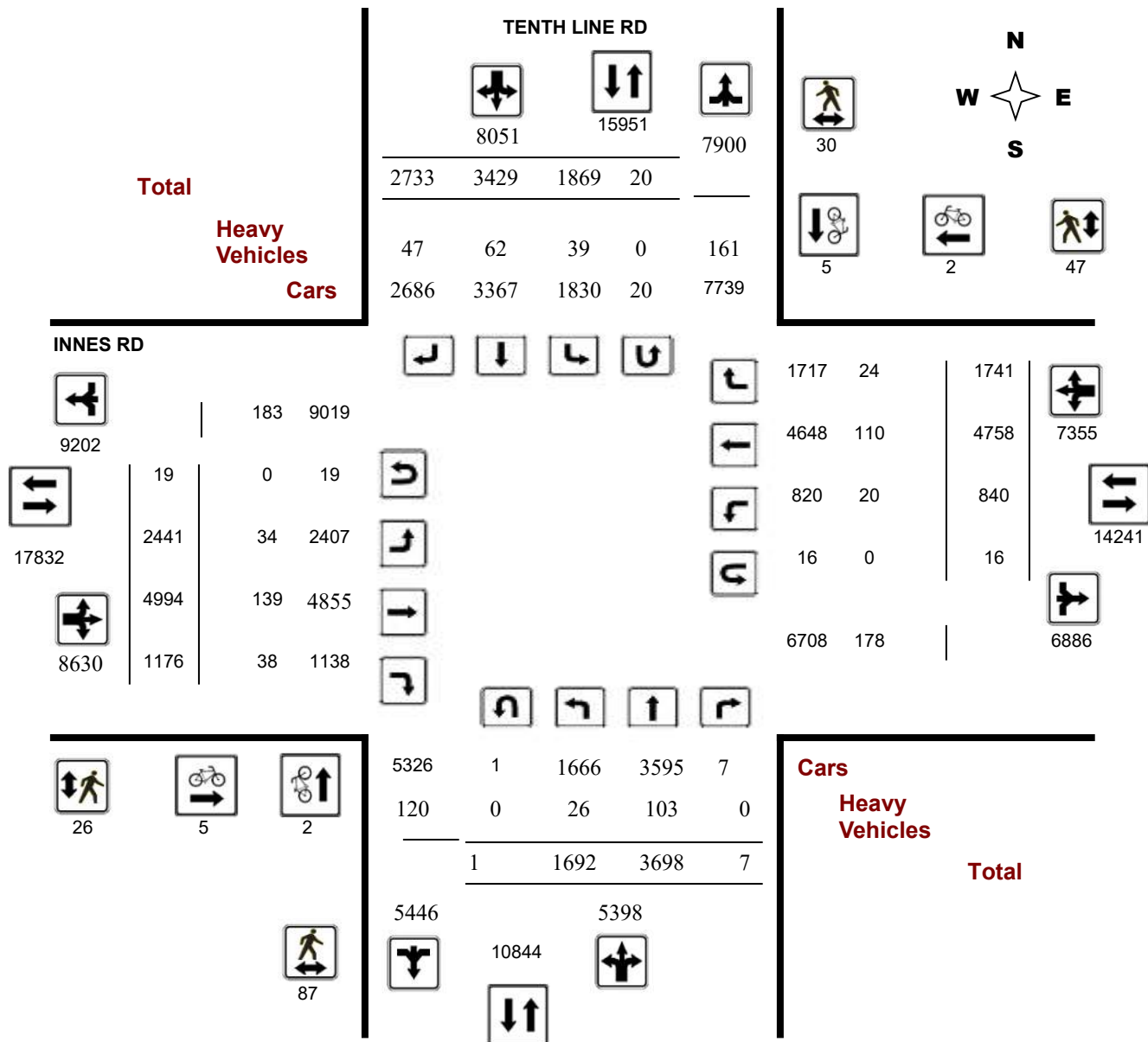
WO No:

39285

Device:

Miovision

Full Study Diagram



5469226 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

Start Time: 07:00

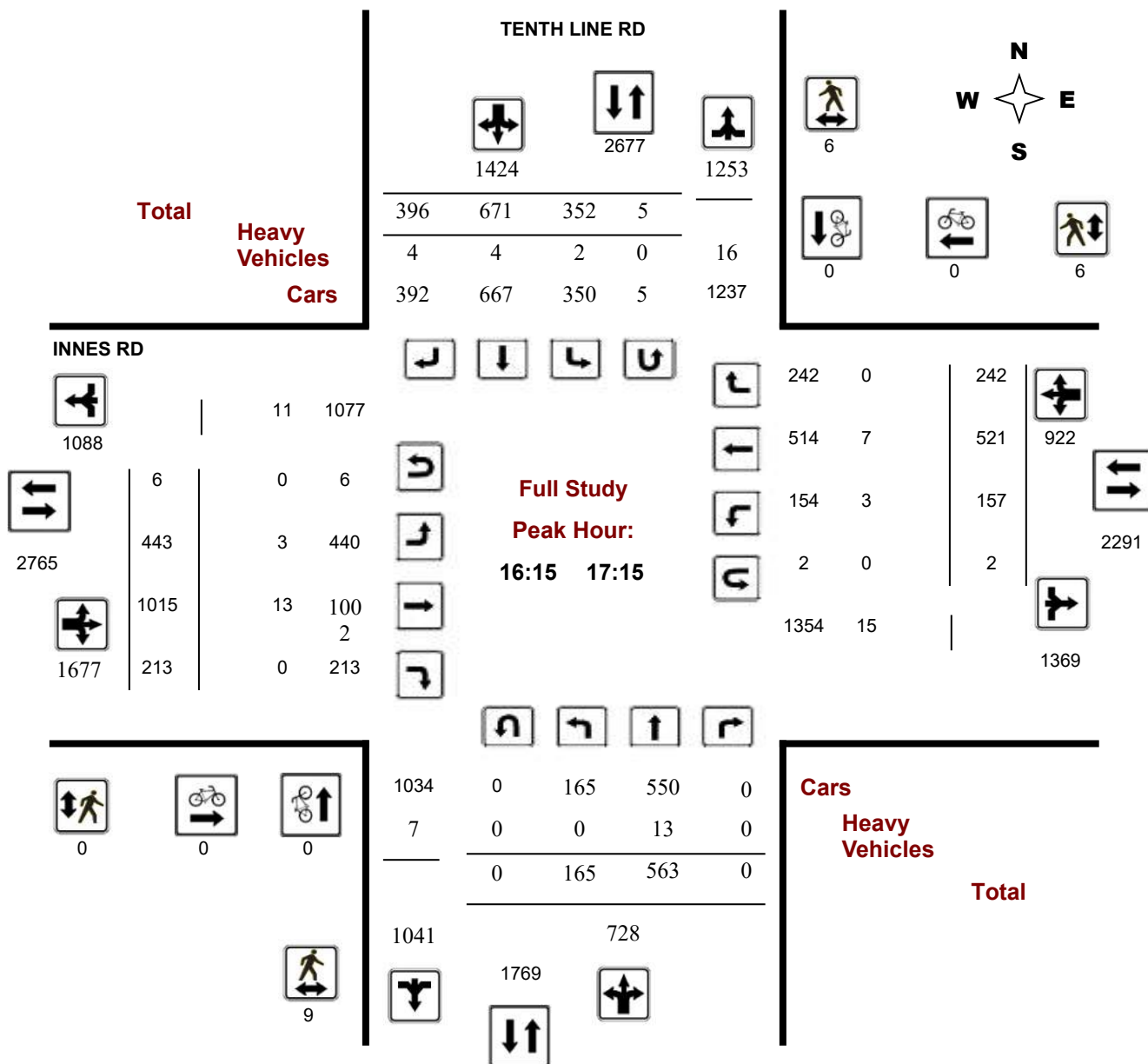
WO No:

39285

Device:

Miovision

Full Study Peak Hour Diagram



5469226 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

Start Time: 07:00

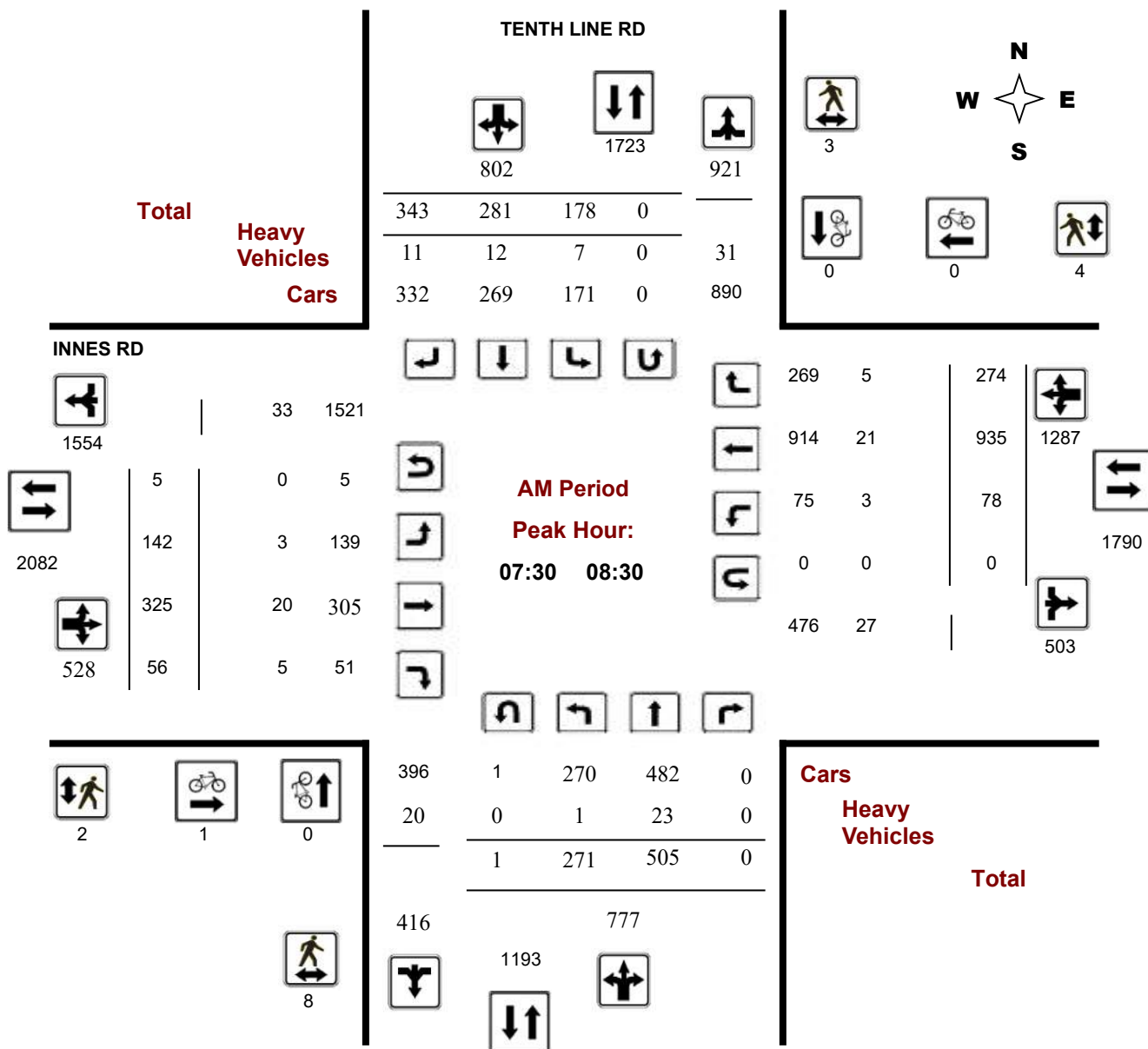
WO No:

39285

Device:

Miovision

AM Period Peak Hour Diagram



5469226 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

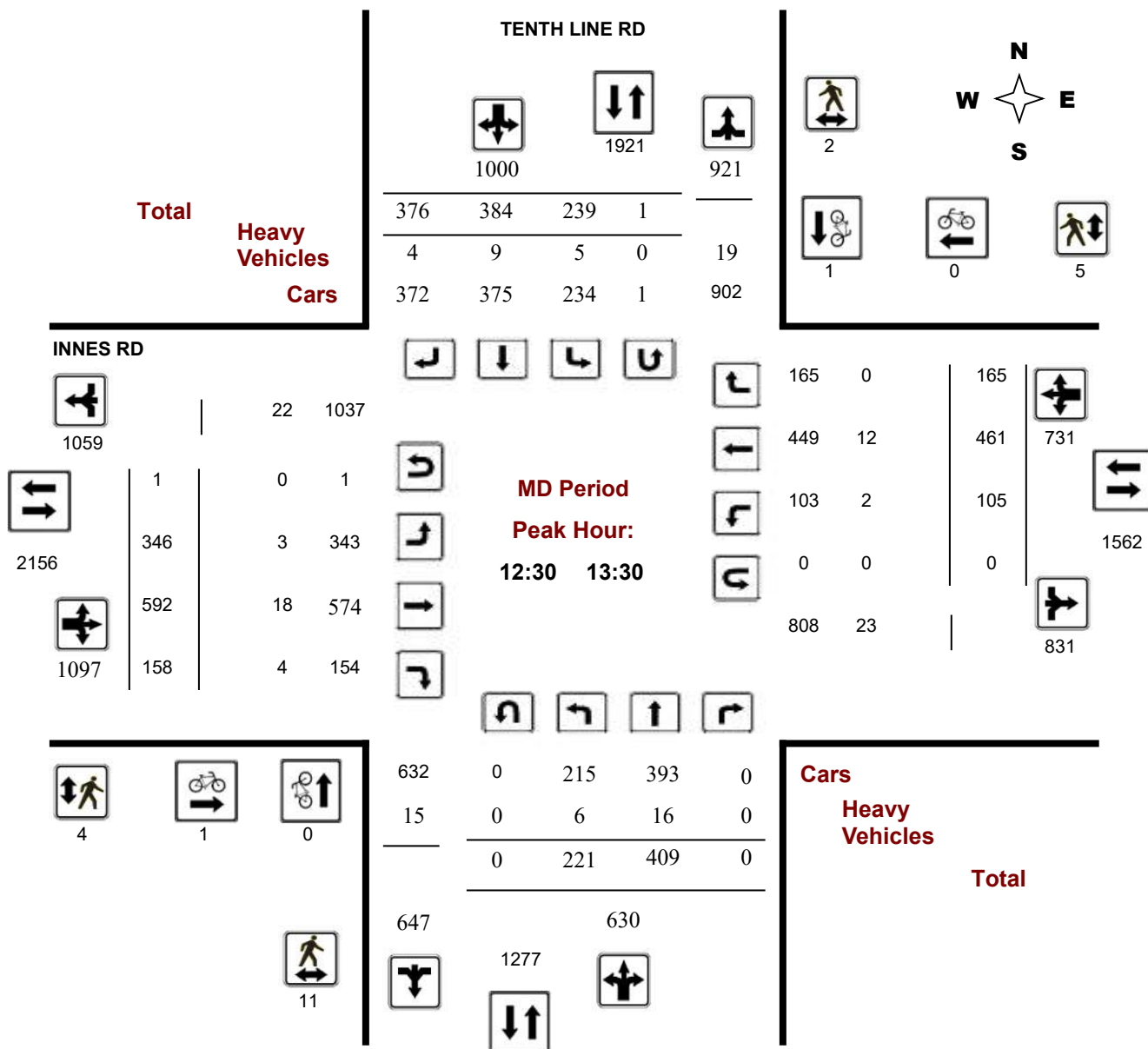
Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

MD Period Peak Hour Diagram



5469226 - THU JAN 09, 2020 - 8HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

Start Time: 07:00

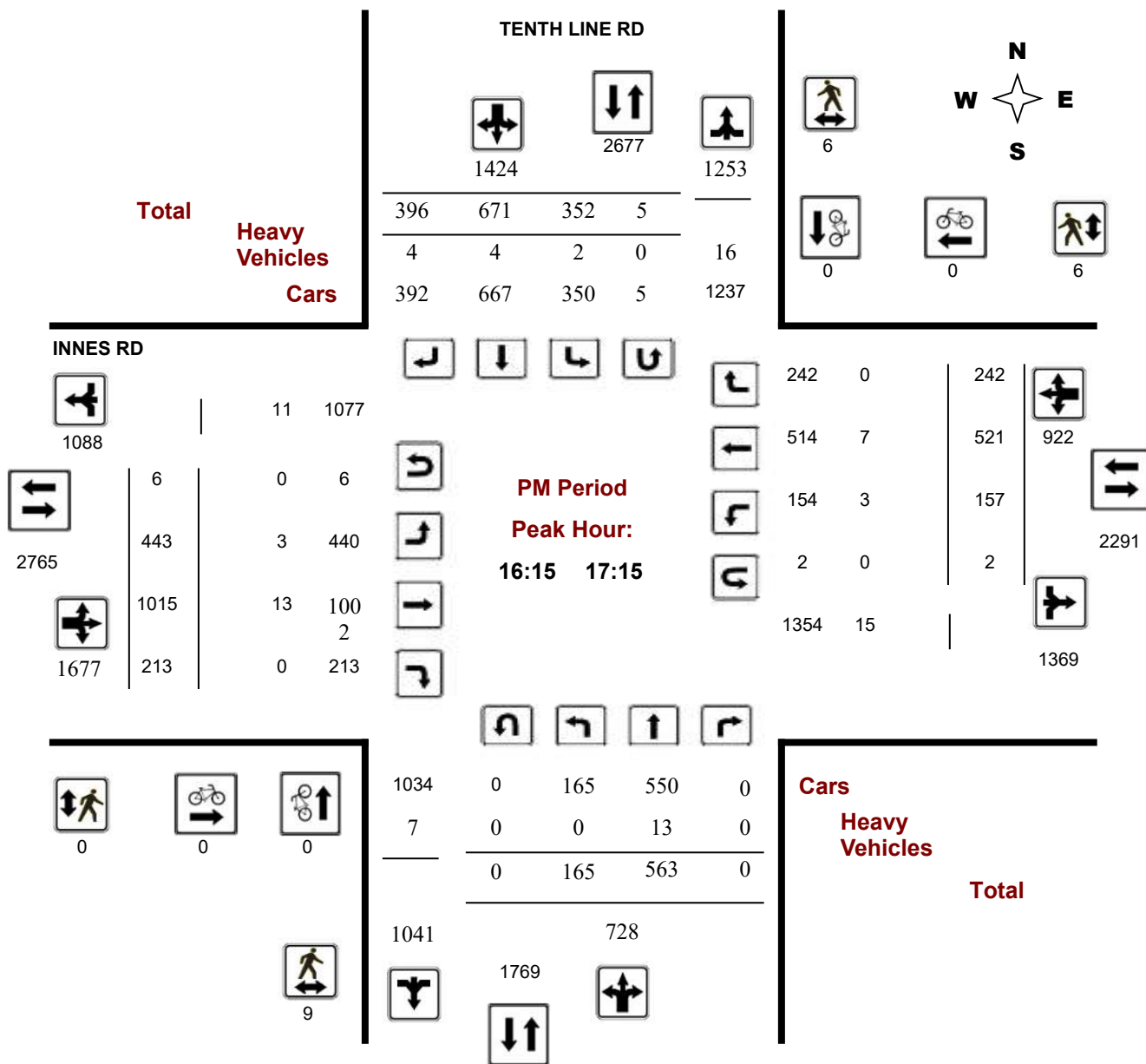
WO No:

39285

Device:

Miovision

PM Period Peak Hour Diagram



5469226 - THU JAN 09, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

Full Study Summary (8 HR Standard)

Survey Date: Thursday, January 09, 2020

Total Observed U-Turns

AADT Factor

Northbound: 1 Southbound: 20

1.00

Eastbound: 19 Westbound: 16

TENTH LINE RD

INNES RD

Period	TENTH LINE RD Northbound					TENTH LINE RD Southbound					INNES RD Eastbound					INNES RD Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
07:00 08:00	323	422	0	745		152	235	334	721	1466	121	293	66	480		60	1025	202	1287	1767	3233
08:00 09:00	234	512	0	746		168	311	313	792	1538	138	308	76	522		92	789	263	1144	1666	3204
09:00 10:00	167	422	5	594		138	243	295	676	1270	201	329	94	624		69	531	219	819	1443	2713
11:30 12:30	194	346	0	540		218	387	353	958	1498	349	555	161	1065		103	457	189	749	1814	3312
12:30 13:30	221	409	0	630		239	384	376	999	1629	346	592	158	1096		105	461	165	731	1827	3456
15:00 16:00	206	487	0	693		282	619	347	1248	1941	410	863	190	1463		119	484	216	819	2282	4223
16:00 17:00	178	525	0	703		355	649	394	1398	2101	458	1028	203	1689		144	505	232	881	2570	4671
17:00 18:00	169	575	2	746		317	601	321	1239	1985	418	1026	228	1672		148	506	255	909	2581	4566
Sub Total	1692	3698	7	5397		1869	3429	2733	8031	13428	2441	4994	1176	8611		840	4758	1741	7339	15950	29378
U Turns				1					20	21				19					16	35	56
Total	1692	3698	7	5398		1869	3429	2733	8051	13449	2441	4994	1176	8630		840	4758	1741	7355	15985	29434
EQ 12Hr	2352	5140	10	7503		2598	4766	3799	11191	18694	3393	6942	1635	11996		1168	6614	2420	10223	22219	40913

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr 2352 5140 10 7503 2598 6244 4977 11191 18694 3393 6942 1635 11996 1168 6614 2420 10223 22219 40913

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

1.00

AVG 24Hr 3081 6733 13 9829 3403 8180 6520 14660 24489 4445 9094 2142 15715 1530 8664 3170 13392 29107 53596

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

Full Study 15 Minute Increments

TENTH LINE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00	07:15	86	96	0	182	29	39	68	136	318	18	44	17	79	12	266	39	317	714
07:15	07:30	96	80	0	176	35	57	80	172	348	21	63	20	105	11	276	44	331	784
07:30	07:45	79	128	0	207	40	57	82	179	386	36	95	17	148	18	240	59	317	851
17:45	18:00	53	149	0	202	68	132	70	271	473	100	259	52	413	37	128	58	224	1110
17:30	17:45	36	127	0	163	71	143	80	297	460	103	262	62	427	27	107	54	191	1078
07:45	08:00	62	118	0	180	48	82	104	234	414	46	91	12	151	19	243	60	322	887
08:00	08:15	72	111	0	184	38	66	72	176	360	29	66	14	110	16	215	71	302	772
08:15	08:30	58	148	0	206	52	76	85	213	419	31	73	13	119	25	237	84	346	884
08:30	08:45	54	138	0	192	38	76	70	184	376	34	77	20	132	33	185	56	274	782
08:45	09:00	50	115	0	165	40	93	86	221	386	44	92	29	165	18	152	52	222	773
09:00	09:15	47	118	3	168	36	64	73	175	343	38	70	17	125	16	159	67	242	710
09:15	09:30	48	103	0	151	42	53	64	159	310	60	87	16	163	21	133	59	214	687
09:30	09:45	32	109	1	142	24	62	89	175	317	53	81	32	167	11	129	49	190	674
09:45	10:00	40	92	1	133	36	64	69	169	302	50	91	29	170	21	110	44	175	647
11:30	11:45	42	84	0	126	61	103	72	237	363	92	135	37	264	27	109	51	187	814
11:45	12:00	47	90	0	137	60	102	91	253	390	81	135	36	252	21	117	46	184	826
12:00	12:15	55	85	0	140	52	80	93	225	365	92	142	50	284	29	114	53	197	846
12:15	12:30	50	87	0	137	45	102	97	244	381	84	143	38	265	26	117	39	182	828
12:30	12:45	61	90	0	151	62	81	89	232	383	86	155	41	282	28	106	50	184	849
12:45	13:00	56	99	0	155	72	99	90	261	416	81	149	38	268	27	119	43	189	873
13:00	13:15	50	94	0	144	47	103	97	247	391	87	153	43	283	24	114	36	174	848
13:15	13:30	54	126	0	180	58	101	100	260	440	92	135	36	264	26	122	36	184	888
15:00	15:15	53	111	0	164	61	167	94	323	487	83	175	42	302	26	108	47	181	970
15:15	15:30	61	135	0	196	74	137	97	309	505	114	225	56	395	24	118	44	189	1089
15:30	15:45	53	115	0	168	56	155	76	288	456	105	239	46	390	24	117	61	202	1048
15:45	16:00	39	126	0	165	91	160	80	332	497	108	224	46	378	45	141	64	252	1127
16:00	16:15	48	117	0	165	89	149	98	336	501	127	275	45	447	32	110	60	202	1150
16:15	16:30	45	139	0	184	95	175	96	366	550	126	255	51	434	42	128	64	234	1218
16:30	16:45	47	139	0	186	85	152	102	339	525	104	257	55	416	31	126	54	211	1152
16:45	17:00	38	130	0	168	86	173	98	359	527	101	241	52	398	39	141	54	234	1159
17:00	17:15	35	155	0	190	86	171	100	360	550	112	262	55	429	45	126	70	243	1222
17:15	17:30	45	144	2	191	92	155	71	319	510	103	243	59	405	39	145	73	259	1174
Total:		1692	3698	7	5398	1869	3429	2733	8051	13449	2441	4994	1176	8630	840	4758	1741	7355	29,434

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cyclist volumes refer to Cyclist Volume report.

5469226 - THU JAN 09, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

Full Study Cyclist Volume

		TENTH LINE RD			INNES RD			Grand Total
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
07:00	07:15	0	1	1	0	0	0	1
07:15	07:30	0	0	0	0	0	0	0
07:30	07:45	0	0	0	0	0	0	0
17:45	18:00	0	0	0	0	0	0	0
17:30	17:45	0	0	0	0	0	0	0
07:45	08:00	0	0	0	0	0	0	0
08:00	08:15	0	0	0	1	0	1	1
08:15	08:30	0	0	0	0	0	0	0
08:30	08:45	1	0	1	0	0	0	1
08:45	09:00	0	0	0	0	0	0	0
09:00	09:15	0	1	1	0	0	0	1
09:15	09:30	0	0	0	0	0	0	0
09:30	09:45	0	0	0	0	0	0	0
09:45	10:00	0	0	0	0	0	0	0
11:30	11:45	0	0	0	0	0	0	0
11:45	12:00	0	1	1	0	0	0	1
12:00	12:15	1	1	2	1	1	2	4
12:15	12:30	0	0	0	2	1	3	3
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	1	0	1	1
13:00	13:15	0	1	1	0	0	0	1
13:15	13:30	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
16:00	16:15	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0
17:00	17:15	0	0	0	0	0	0	0
17:15	17:30	0	0	0	0	0	0	0
Total		2	5	7	5	2	7	14



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

Full Study Pedestrian Volume

TENTH LINE RD

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
07:00 07:15	0	0	0	2	0	2	2
07:15 07:30	1	0	1	0	0	0	1
07:30 07:45	5	0	5	0	3	3	8
17:45 18:00	4	0	4	0	2	2	6
17:30 17:45	3	0	3	0	2	2	5
07:45 08:00	1	1	2	1	0	1	3
08:00 08:15	1	2	3	0	1	1	4
08:15 08:30	1	0	1	1	0	1	2
08:30 08:45	2	1	3	0	0	0	3
08:45 09:00	1	1	2	0	1	1	3
09:00 09:15	1	1	2	1	0	1	3
09:15 09:30	1	0	1	0	0	0	1
09:30 09:45	3	1	4	1	0	1	5
09:45 10:00	2	2	4	0	3	3	7
11:30 11:45	1	2	3	1	3	4	7
11:45 12:00	4	0	4	1	0	1	5
12:00 12:15	2	0	2	3	1	4	6
12:15 12:30	5	2	7	1	1	2	9
12:30 12:45	4	0	4	1	2	3	7
12:45 13:00	2	1	3	2	2	4	7
13:00 13:15	3	0	3	0	0	0	3
13:15 13:30	2	1	3	1	1	2	5
15:00 15:15	5	2	7	5	5	10	17
15:15 15:30	5	1	6	1	5	6	12
15:30 15:45	5	0	5	2	2	4	9
15:45 16:00	4	4	8	2	2	4	12
16:00 16:15	3	1	4	0	4	4	8
16:15 16:30	5	2	7	0	3	3	10
16:30 16:45	1	0	1	0	0	0	1
16:45 17:00	2	2	4	0	2	2	6
17:00 17:15	1	2	3	0	1	1	4
17:15 17:30	7	1	8	0	1	1	9
Total	87	30	117	26	47	73	190

5469226 - THU JAN 09, 2020 - 8HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

Full Study Heavy Vehicles

TENTH LINE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total
07:00 07:15	1	1	0	2	2	1	0	3	5	0	4	0	4	1	4	0	5	9	14
07:15 07:30	1	2	0	3	1	2	0	3	6	1	8	4	13	1	7	3	11	24	30
07:30 07:45	0	2	0	2	3	4	2	9	11	0	8	2	10	1	4	0	5	15	26
17:45 18:00	0	1	0	1	0	2	0	2	3	0	3	0	3	0	2	1	3	6	9
17:30 17:45	0	1	0	1	0	1	0	1	2	0	3	0	3	0	2	0	2	5	7
07:45 08:00	1	5	0	6	2	5	4	11	17	1	3	0	4	0	3	2	5	9	26
08:00 08:15	0	7	0	7	0	1	3	4	11	2	4	2	8	0	8	3	11	19	30
08:15 08:30	0	9	0	9	2	2	2	6	15	0	5	1	6	2	6	0	8	14	29
08:30 08:45	2	3	0	5	2	1	3	6	11	2	6	4	12	3	4	0	7	19	30
08:45 09:00	1	5	0	6	3	2	5	10	16	4	6	3	13	0	7	1	8	21	37
09:00 09:15	0	4	0	4	2	0	3	5	9	0	7	1	8	2	6	1	9	17	26
09:15 09:30	0	3	0	3	2	2	2	6	9	3	9	0	12	1	2	2	5	17	26
09:30 09:45	1	4	0	5	0	1	1	2	7	3	4	4	11	0	3	2	5	16	23
09:45 10:00	2	4	0	6	2	3	0	5	11	1	2	4	7	2	2	2	6	13	24
11:30 11:45	0	3	0	3	0	3	3	6	9	1	6	3	10	1	2	2	5	15	24
11:45 12:00	1	2	0	3	2	4	2	8	11	0	4	1	5	0	4	0	4	9	20
12:00 12:15	1	1	0	2	2	2	1	5	7	0	4	0	4	0	3	0	3	7	14
12:15 12:30	0	3	0	3	0	1	0	1	4	4	6	0	10	0	2	0	2	12	16
12:30 12:45	3	4	0	7	1	1	1	3	10	1	6	1	8	1	2	0	3	11	21
12:45 13:00	1	3	0	4	1	2	1	4	8	0	4	0	4	1	3	0	4	8	16
13:00 13:15	1	3	0	4	2	3	1	6	10	2	5	2	9	0	6	0	6	15	25
13:15 13:30	1	6	0	7	1	3	1	5	12	0	3	1	4	0	1	0	1	5	17
15:00 15:15	4	6	0	10	1	6	3	10	20	0	3	1	4	0	5	1	6	10	30
15:15 15:30	1	2	0	3	0	1	1	2	5	2	1	0	3	0	2	2	4	7	12
15:30 15:45	2	1	0	3	0	0	1	1	4	0	2	2	4	0	3	1	4	8	12
15:45 16:00	0	2	0	2	3	4	1	8	10	0	6	2	8	1	5	0	6	14	24
16:00 16:15	1	0	0	1	1	1	2	4	5	2	3	0	5	0	3	1	4	9	14
16:15 16:30	0	4	0	4	2	2	2	6	10	1	3	0	4	2	3	0	5	9	19
16:30 16:45	0	5	0	5	0	1	1	2	7	0	6	0	6	1	1	0	2	8	15
16:45 17:00	0	3	0	3	0	0	0	0	3	1	2	0	3	0	1	0	1	4	7
17:00 17:15	0	1	0	1	0	1	1	2	3	1	2	0	3	0	2	0	2	5	8
17:15 17:30	1	3	0	4	2	0	0	2	6	2	1	0	3	0	2	0	2	5	11
Total: None	26	103	0	129	39	62	47	148	277	34	139	38	211	20	110	24	154	365	642

Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Thursday, January 09, 2020

WO No: 39285

Start Time: 07:00

Device: Miovision

Full Study 15 Minute U-Turn Total

TENTH LINE RD

INNES RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
07:00	07:15	0	0	0	0	0
07:15	07:30	0	0	1	0	1
07:30	07:45	0	0	0	0	0
17:45	18:00	0	1	2	1	4
17:30	17:45	0	3	0	3	6
07:45	08:00	0	0	2	0	2
08:00	08:15	1	0	1	0	2
08:15	08:30	0	0	2	0	2
08:30	08:45	0	0	1	0	1
08:45	09:00	0	2	0	0	2
09:00	09:15	0	2	0	0	2
09:15	09:30	0	0	0	1	1
09:30	09:45	0	0	1	1	2
09:45	10:00	0	0	0	0	0
11:30	11:45	0	1	0	0	1
11:45	12:00	0	0	0	0	0
12:00	12:15	0	0	0	1	1
12:15	12:30	0	0	0	0	0
12:30	12:45	0	0	0	0	0
12:45	13:00	0	0	0	0	0
13:00	13:15	0	0	0	0	0
13:15	13:30	0	1	1	0	2
15:00	15:15	0	1	2	0	3
15:15	15:30	0	1	0	3	4
15:30	15:45	0	1	0	0	1
15:45	16:00	0	1	0	2	3
16:00	16:15	0	0	0	0	0
16:15	16:30	0	0	2	0	2
16:30	16:45	0	0	0	0	0
16:45	17:00	0	2	4	0	6
17:00	17:15	0	3	0	2	5
17:15	17:30	0	1	0	2	3
Total		1	20	19	16	56

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

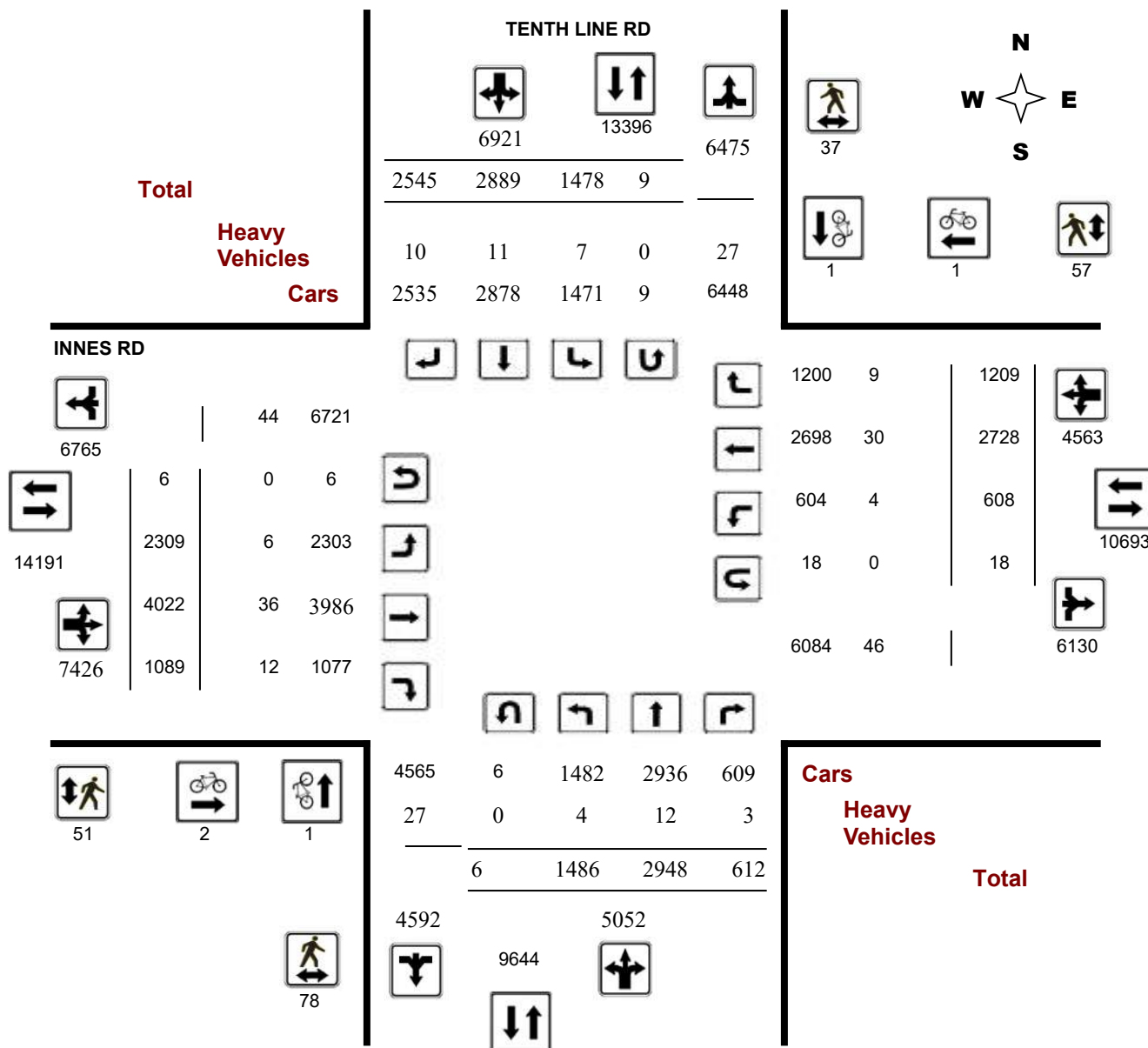
Survey Date: Saturday, February 01, 2020

Start Time: 11:00

WO No: 39288

Device: Miovision

Full Study Diagram



5469230 - SAT JAN 11, 2020 - 5HRS - LORETTA

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

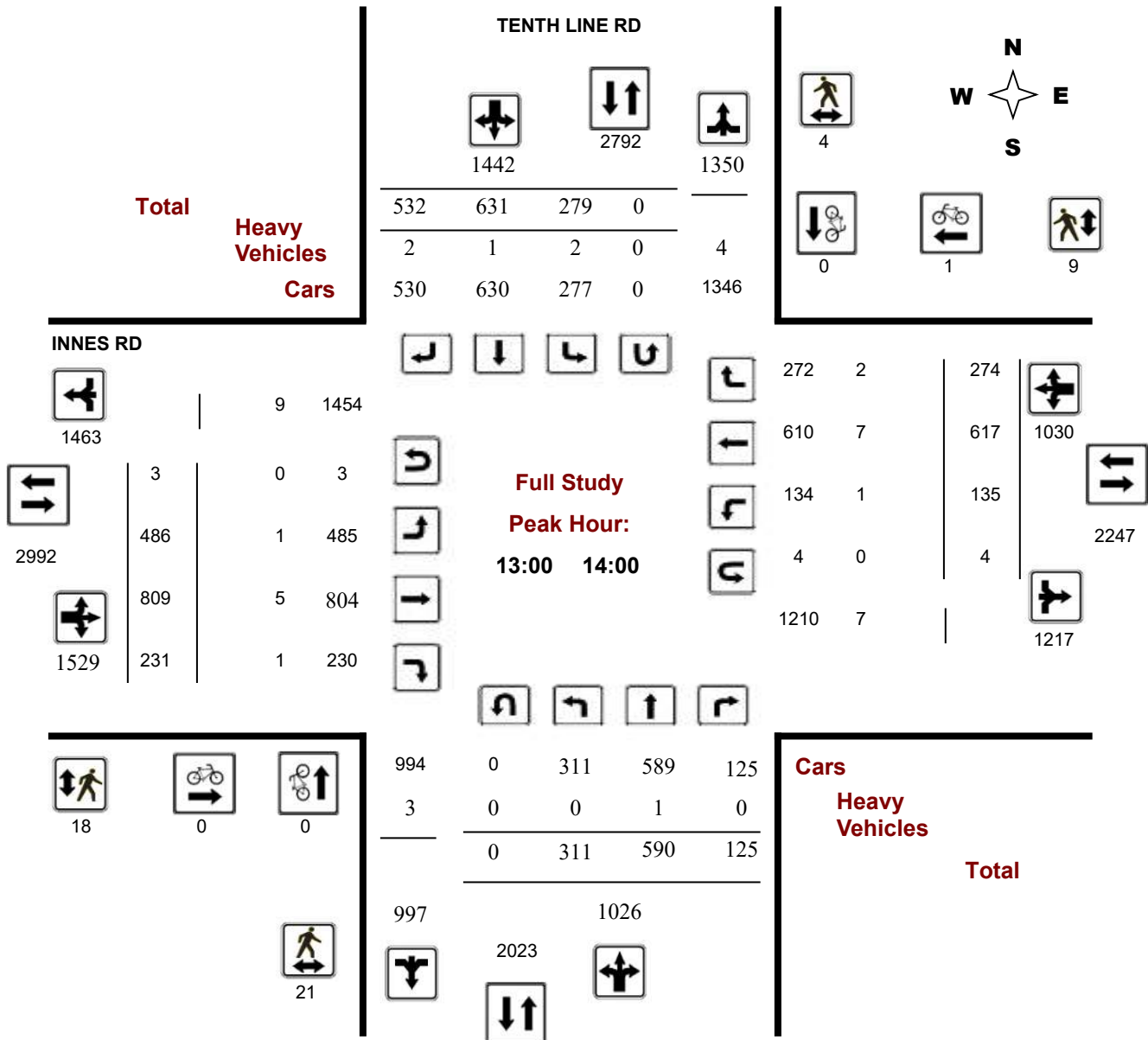
Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study Peak Hour Diagram



5469230 - SAT JAN 11, 2020 - 5HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study Summary (5 HR)

Survey Date: Saturday, February 01, 2020

Total Observed U-Turns

AADT Factor

Northbound: 6 Southbound: 9
Eastbound: 6 Westbound: 18

.00

TENTH LINE RD

INNES RD

Period	Northbound					Southbound					Eastbound					Westbound					Grand Total
	LT	ST	RT	NB TOT		LT	ST	RT	SB TOT	STR TOT	LT	ST	RT	EB TOT		LT	ST	RT	WB TOT	STR TOT	
11:00 12:00	273	606	93	972		287	510	494	1291	2263	422	725	196	1343		145	626	247	1018	2361	4624
12:00 13:00	344	625	140	1109		314	642	612	1568	2677	424	816	227	1467		72	279	171	522	1989	4666
13:00 14:00	311	590	125	1026		279	631	532	1442	2468	486	809	231	1526		135	617	274	1026	2552	5020
14:00 15:00	308	566	133	1007		316	573	437	1326	2333	472	849	222	1543		134	603	268	1005	2548	4881
15:00 16:00	250	561	121	932		282	533	470	1285	2217	505	823	213	1541		122	603	249	974	2515	4732
Sub Total	1486	2948	612	5046		1478	2889	2545	6912	11958	2309	4022	1089	7420		608	2728	1209	4545	11965	23923
U Turns				6					9	15				6					18	24	39
Total	1486	2948	612	5052		1478	2889	2545	6921	11973	2309	4022	1089	7426		608	2728	1209	4563	11989	23962
EQ 12Hr	2066	4098	851	7022		2054	4016	3538	9620	16642	3210	5591	1514	10322		845	3792	1681	6343	16665	33307

Note: These values are calculated by multiplying the totals by the appropriate expansion factor.

1.39

AVG 12Hr 0

Note: These volumes are calculated by multiplying the Equivalent 12 hr. totals by the AADT factor.

.00

AVG 24Hr 0

Note: These volumes are calculated by multiplying the Average Daily 12 hr. totals by 12 to 24 expansion factor.

1.31

Note: U-Turns provided for approach totals. Refer to 'U-Turn' Report for specific breakdown.



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study 15 Minute Increments

TENTH LINE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period	LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	Grand Total	
11:00	11:15	61	161	19	243	68	141	139	348	591	93	166	43	302	36	132	64	232	534	1125
11:15	11:30	72	161	22	255	78	124	107	310	565	103	182	51	336	34	171	60	265	601	1166
11:30	11:45	58	148	26	232	62	110	128	302	534	108	176	41	326	42	179	62	283	609	1143
14:15	14:30	86	138	29	253	84	151	116	351	604	106	218	61	385	35	164	73	273	658	1262
14:45	15:00	68	142	29	241	76	154	107	337	578	125	203	54	382	33	153	67	255	637	1215
15:45	16:00	63	143	32	238	65	118	106	289	527	121	222	55	398	37	157	65	260	658	1185
11:45	12:00	82	136	26	244	79	135	120	335	579	118	201	61	380	33	144	61	239	619	1198
12:00	12:15	66	146	34	246	84	166	145	395	641	110	218	57	386	46	161	58	265	651	1292
12:15	12:30	67	151	35	253	69	151	136	357	610	107	210	53	370	15	62	37	114	484	1094
12:30	12:45	112	168	29	311	77	145	170	393	704	112	196	53	361	8	28	51	89	450	1154
12:45	13:00	99	160	42	301	84	180	161	426	727	95	192	64	351	3	28	25	56	407	1134
13:00	13:15	80	162	35	277	86	183	169	438	715	113	185	46	344	35	129	59	223	567	1282
13:15	13:30	76	133	37	246	68	164	135	367	613	124	218	57	400	38	176	82	296	696	1309
13:30	13:45	81	164	22	267	79	138	110	327	594	129	187	62	379	35	157	69	265	644	1238
13:45	14:00	74	131	31	236	46	146	118	310	546	120	219	66	406	27	155	64	246	652	1198
14:00	14:15	85	136	40	261	79	156	109	345	606	121	236	58	415	38	144	55	237	652	1258
14:30	14:45	69	150	35	254	77	112	105	295	549	120	192	49	362	28	142	73	244	606	1155
15:00	15:15	63	146	25	234	79	126	100	305	539	139	195	57	391	38	146	61	247	638	1177
15:15	15:30	66	135	38	239	77	155	142	374	613	127	200	51	378	25	164	51	244	622	1235
15:30	15:45	58	137	26	221	61	134	122	317	538	118	206	50	374	22	136	72	230	604	1142
Total:		1486	2948	612	5052	1478	2889	2545	6921	11973	2309	4022	1089	7426	608	2728	1209	4563	11989	23,962

Note: U-Turns are included in Totals, cyclist volume is not included in totals. For cycliste volumes reffer to Cyclist Volume report. **5469230 - SAT JAN 11, 2020 - 5HRS - LORETTA**



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study Cyclist Volume

		TENTH LINE RD			INNES RD			Grand Total
Time Period		Northbound	Southbound	Street Total	Eastbound	Westbound	Street Total	
11:00	11:15	0	0	0	0	0	0	0
11:15	11:30	0	0	0	0	0	0	0
11:30	11:45	0	0	0	1	0	1	1
14:15	14:30	0	0	0	0	0	0	0
14:45	15:00	0	0	0	0	0	0	0
15:45	16:00	0	0	0	0	0	0	0
11:45	12:00	0	0	0	0	0	0	0
12:00	12:15	0	1	1	0	0	0	1
12:15	12:30	0	0	0	0	0	0	0
12:30	12:45	0	0	0	0	0	0	0
12:45	13:00	0	0	0	0	0	0	0
13:00	13:15	0	0	0	0	0	0	0
13:15	13:30	0	0	0	0	0	0	0
13:30	13:45	0	0	0	0	1	1	1
13:45	14:00	0	0	0	0	0	0	0
14:00	14:15	0	0	0	0	0	0	0
14:30	14:45	0	0	0	0	0	0	0
15:00	15:15	0	0	0	0	0	0	0
15:15	15:30	0	0	0	0	0	0	0
15:30	15:45	1	0	1	1	0	1	2
Total		1	1	2	2	1	3	5



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study Pedestrian Volume

TENTH LINE RD

INNES RD

Time Period	NB Approach (E or W Crossing)	SB Approach (E or W Crossing)	Total	EB Approach (N or S Crossing)	WB Approach (N or S Crossing)	Total	Grand Total
11:00 11:15	3	0	3	1	3	4	7
11:15 11:30	4	2	6	5	2	7	13
11:30 11:45	4	0	4	0	3	3	7
14:15 14:30	4	0	4	1	6	7	11
14:45 15:00	2	3	5	3	1	4	9
15:45 16:00	2	3	5	3	1	4	9
11:45 12:00	2	2	4	0	4	4	8
12:00 12:15	3	3	6	3	2	5	11
12:15 12:30	2	3	5	0	2	2	7
12:30 12:45	2	5	7	2	1	3	10
12:45 13:00	8	1	9	1	4	5	14
13:00 13:15	13	0	13	9	2	11	24
13:15 13:30	2	2	4	0	3	3	7
13:30 13:45	1	2	3	4	2	6	9
13:45 14:00	5	0	5	5	2	7	12
14:00 14:15	7	2	9	3	6	9	18
14:30 14:45	1	2	3	3	3	6	9
15:00 15:15	0	2	2	2	1	3	5
15:15 15:30	7	0	7	2	3	5	12
15:30 15:45	6	5	11	4	6	10	21
Total	78	37	115	51	57	108	223

5469230 - SAT JAN 11, 2020 - 5HRS - LORETTA



Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study Heavy Vehicles

TENTH LINE RD

INNES RD

Northbound

Southbound

Eastbound

Westbound

Time Period		Northbound			Southbound			Eastbound			Westbound									Grand Total
		LT	ST	RT	N TOT	LT	ST	RT	S TOT	STR TOT	LT	ST	RT	E TOT	LT	ST	RT	W TOT	STR TOT	
11:00	11:15	0	0	0	0	0	2	0	2	2	0	3	1	4	0	1	0	1	5	7
11:15	11:30	0	1	0	1	0	0	0	0	1	0	2	0	2	1	2	0	3	5	6
11:30	11:45	1	2	2	5	0	1	0	1	6	0	1	1	2	0	2	1	3	5	11
14:15	14:30	0	0	0	0	0	0	1	1	1	0	2	0	2	0	4	0	4	6	7
14:45	15:00	0	0	0	0	1	1	1	3	3	0	2	0	2	0	1	2	3	5	8
15:45	16:00	0	0	0	0	2	0	1	3	3	1	2	0	3	0	3	0	3	6	9
11:45	12:00	0	0	0	0	0	1	0	1	1	0	5	0	5	0	1	0	1	6	7
12:00	12:15	0	1	0	1	0	0	1	1	2	1	2	1	4	0	1	2	3	7	9
12:15	12:30	0	2	0	2	0	0	1	1	3	0	3	0	3	0	0	0	0	3	6
12:30	12:45	1	0	1	2	1	1	0	2	4	0	0	2	2	0	0	0	0	2	6
12:45	13:00	2	0	0	2	0	1	1	2	4	2	0	3	5	0	0	1	1	6	10
13:00	13:15	0	0	0	0	1	0	1	2	2	1	0	0	1	0	3	1	4	5	7
13:15	13:30	0	1	0	1	0	0	0	0	1	0	1	0	1	0	2	1	3	4	5
13:30	13:45	0	0	0	0	0	1	0	1	1	0	2	1	3	1	1	0	2	5	6
13:45	14:00	0	0	0	0	1	0	1	2	2	0	2	0	2	0	1	0	1	3	5
14:00	14:15	0	2	0	2	0	1	0	1	3	0	2	0	2	2	2	0	4	6	9
14:30	14:45	0	0	0	0	0	0	0	0	0	1	1	1	3	0	1	0	1	4	4
15:00	15:15	0	1	0	1	1	1	0	2	3	0	1	1	2	0	1	0	1	3	6
15:15	15:30	0	1	0	1	0	0	2	2	3	0	4	0	4	0	2	0	2	6	9
15:30	15:45	0	1	0	1	0	1	0	1	2	0	1	1	2	0	2	1	3	5	7
Total:	None	4	12	3	19	7	11	10	28	47	6	36	12	54	4	30	9	43	97	144

Transportation Services - Traffic Services

Turning Movement Count - Study Results

INNES RD @ TENTH LINE RD

Survey Date: Saturday, February 01, 2020

WO No: 39288

Start Time: 11:00

Device: Miovision

Full Study 15 Minute U-Turn Total

TENTH LINE RD

INNES RD

Time Period		Northbound U-Turn Total	Southbound U-Turn Total	Eastbound U-Turn Total	Westbound U-Turn Total	Total
11:00	11:15	2	0	0	0	2
11:15	11:30	0	1	0	0	1
11:30	11:45	0	2	1	0	3
14:15	14:30	0	0	0	1	1
14:45	15:00	2	0	0	2	4
15:45	16:00	0	0	0	1	1
11:45	12:00	0	1	0	1	2
12:00	12:15	0	0	1	0	1
12:15	12:30	0	1	0	0	1
12:30	12:45	2	1	0	2	5
12:45	13:00	0	1	0	0	1
13:00	13:15	0	0	0	0	0
13:15	13:30	0	0	1	0	1
13:30	13:45	0	0	1	4	5
13:45	14:00	0	0	1	0	1
14:00	14:15	0	1	0	0	1
14:30	14:45	0	1	1	1	3
15:00	15:15	0	0	0	2	2
15:15	15:30	0	0	0	4	4
15:30	15:45	0	0	0	0	0
Total		6	9	6	18	39

Appendix D

Detailed Synchro Report

2025 Existing Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	145	1372	149	192	907	314	177	288	274	454	477	87
Future Volume (vph)	145	1372	149	192	907	314	177	288	274	454	477	87
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3088	0	3281	3215	0
Flt Permitted	0.150			0.074			0.950			0.950		
Satd. Flow (perm)	259	3349	1513	130	3316	1483	3216	3088	0	3281	3215	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			349		138			15	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	161	1524	166	213	1008	349	197	320	304	504	530	97
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	1524	166	213	1008	349	197	624	0	504	627	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	16.2	60.8	60.8	15.0	59.6	59.6	17.2	30.2		24.0	37.0	
Total Split (%)	12.5%	46.8%	46.8%	11.5%	45.8%	45.8%	13.2%	23.2%		18.5%	28.5%	
Maximum Green (s)	10.1	54.4	54.4	8.9	53.2	53.2	10.9	24.0		17.7	30.8	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	64.5	54.4	54.4	64.0	54.1	54.1	10.7	23.4		17.7	30.4	
Actuated g/C Ratio	0.50	0.42	0.42	0.49	0.42	0.42	0.08	0.18		0.14	0.23	
v/c Ratio	0.69	1.09	0.22	1.20	0.73	0.43	0.75	0.93		1.13	0.82	
Control Delay	32.5	88.0	3.1	159.9	34.1	7.6	76.2	62.8		133.1	56.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	32.5	88.0	3.1	159.9	34.1	7.6	76.2	62.8		133.1	56.0	
LOS	C	F	A	F	C	A	E	E		F	E	
Approach Delay		75.6			45.2			66.0			90.4	
Approach LOS		E			D			E			F	
Queue Length 50th (m)	18.9	~212.4	0.0	~48.8	98.2	17.4	23.7	61.3		~70.9	72.4	
Queue Length 95th (m)	#34.0	#251.6	9.3	#94.7	149.1	35.8	#38.4	#92.3		#102.2	93.0	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	236	1401	740	177	1381	821	269	682		446	773	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.68	1.09	0.22	1.20	0.73	0.43	0.73	0.91		1.13	0.81	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.20												
Intersection Signal Delay: 68.4						Intersection LOS: E						
Intersection Capacity Utilization 103.5%						ICU Level of Service G						
Analysis Period (min) 15												

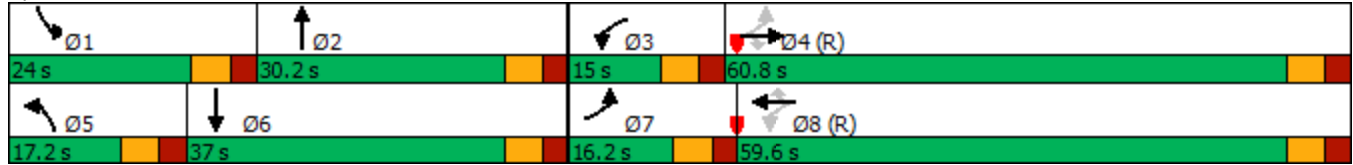
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1627	182	154	1098	315	222
Future Volume (vph)	1627	182	154	1098	315	222
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.054		0.950	
Satd. Flow (perm)	3316	1459	96	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		77				86
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1808	202	171	1220	350	247
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1808	202	171	1220	350	247
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	70.0	70.0	11.0	81.0	49.0	49.0
Total Split (%)	53.8%	53.8%	8.5%	62.3%	37.7%	37.7%
Maximum Green (s)	63.1	63.1	5.0	74.1	42.0	42.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	67.4	67.4	95.5	94.6	21.5	21.5
Actuated g/C Ratio	0.52	0.52	0.73	0.73	0.17	0.17
v/c Ratio	1.05	0.25	0.52	0.52	0.65	0.78
Control Delay	46.1	4.8	44.1	4.4	55.6	49.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	46.1	4.8	44.1	4.4	55.6	49.6
LOS	D	A	D	A	E	D
Approach Delay	41.9			9.3	53.1	
Approach LOS	D			A	D	
Queue Length 50th (m)	~213.0	4.0	27.1	22.0	40.6	37.7
Queue Length 95th (m)	m#224.2	m3.4	50.7	46.5	49.9	59.6
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1719	793	331	2344	1060	539
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.05	0.25	0.52	0.52	0.33	0.46
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 115						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 1.05						
Intersection Signal Delay: 32.3				Intersection LOS: C		
Intersection Capacity Utilization 83.3%				ICU Level of Service E		
Analysis Period (min) 15						

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1797	52	0	1252	0	108
Future Volume (vph)	1797	52	0	1252	0	108
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1997	58	0	1391	0	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1997	58	0	1391	0	120
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	66.5%			ICU Level of Service C		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	1733	109	81	1037	41	161	53	32	26	49	54
Future Volume (vph)	63	1733	109	81	1037	41	161	53	32	26	49	54
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.994			0.943			0.921	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3291	0	1658	1669	0	1691	1593	0
Flt Permitted	0.211			0.052			0.684			0.695		
Satd. Flow (perm)	368	3349	1449	92	3291	0	1185	1669	0	1234	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		6			23			42	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	70	1926	121	90	1152	46	179	59	36	29	54	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	1926	121	90	1198	0	179	95	0	29	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	77.0	77.0	77.0	12.0	89.0		41.0	41.0		41.0	41.0	
Total Split (%)	59.2%	59.2%	59.2%	9.2%	68.5%		31.5%	31.5%		31.5%	31.5%	
Maximum Green (s)	71.0	71.0	71.0	6.1	83.0		34.1	34.1		34.1	34.1	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	71.0	71.0	71.0	83.1	83.0		34.1	34.1		34.1	34.1	
Actuated g/C Ratio	0.55	0.55	0.55	0.64	0.64		0.26	0.26		0.26	0.26	
v/c Ratio	0.35	1.05	0.15	0.68	0.57		0.58	0.21		0.09	0.25	
Control Delay	12.7	45.7	2.7	38.6	11.7		50.3	29.6		37.3	25.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.7	45.7	2.7	38.6	11.7		50.3	29.6		37.3	25.3	
LOS	B	D	A	D	B		D	C		D	C	
Approach Delay		42.1			13.6			43.1			27.8	
Approach LOS		D			B			D			C	
Queue Length 50th (m)	4.0	~256.4	0.8	4.8	101.0		36.8	13.2		5.2	13.2	
Queue Length 95th (m)	m4.7	m#69.3	m1.1	m#16.2	108.2		60.0	26.4		12.6	27.7	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	200	1829	828	133	2103		310	454		323	448	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.35	1.05	0.15	0.68	0.57		0.58	0.21		0.09	0.25	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 115												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.05												
Intersection Signal Delay: 32.0					Intersection LOS: C							
Intersection Capacity Utilization 95.1%					ICU Level of Service F							
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

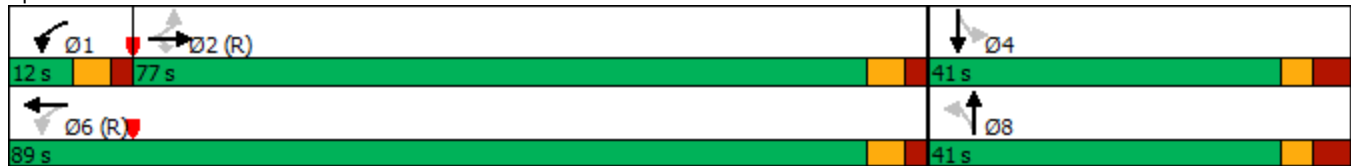
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	475	1088	228	168	558	259	177	603	214	377	719	424
Future Volume (vph)	475	1088	228	168	558	259	177	603	214	377	719	424
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			181			285			206			366
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	528	1209	253	187	620	288	197	670	238	419	799	471
Shared Lane Traffic (%)												
Lane Group Flow (vph)	528	1209	253	187	620	288	197	670	238	419	799	471
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	33.0	55.0	55.0	19.0	41.0	41.0	22.0	34.0	34.0	22.0	34.0	34.0
Total Split (%)	25.4%	42.3%	42.3%	14.6%	31.5%	31.5%	16.9%	26.2%	26.2%	16.9%	26.2%	26.2%
Maximum Green (s)	26.7	48.5	48.5	12.7	34.5	34.5	15.7	28.0	28.0	15.7	28.0	28.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	24.8	48.5	48.5	12.7	36.4	36.4	12.9	28.0	28.0	15.7	30.8	30.8
Actuated g/C Ratio	0.19	0.37	0.37	0.10	0.28	0.28	0.10	0.22	0.22	0.12	0.24	0.24
v/c Ratio	0.85	0.97	0.37	1.16	0.66	0.46	0.61	0.94	0.49	1.07	1.01	0.74
Control Delay	44.0	31.8	9.1	171.4	45.8	6.9	64.0	71.8	12.4	118.4	82.9	19.0
Queue Delay	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	44.0	31.8	9.1	171.4	45.8	6.9	64.0	71.8	12.4	118.4	82.9	19.0
LOS	D	C	A	F	D	A	E	E	B	F	F	B
Approach Delay		32.1			57.0			57.6			73.9	
Approach LOS		C			E			E			E	
Queue Length 50th (m)	54.1	160.4	22.2	~52.0	69.4	0.5	23.2	82.5	6.1	~56.3	~102.1	21.6
Queue Length 95th (m)	m50.6	m150.4	m20.3	#95.1	88.8	20.7	34.1	#115.5	27.8	#85.8	#149.4	63.1
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	667	1249	677	161	938	628	396	714	487	392	793	634
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.79	0.97	0.37	1.16	0.66	0.46	0.50	0.94	0.49	1.07	1.01	0.74

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 53.6

Intersection LOS: D

Intersection Capacity Utilization 91.4%

ICU Level of Service F

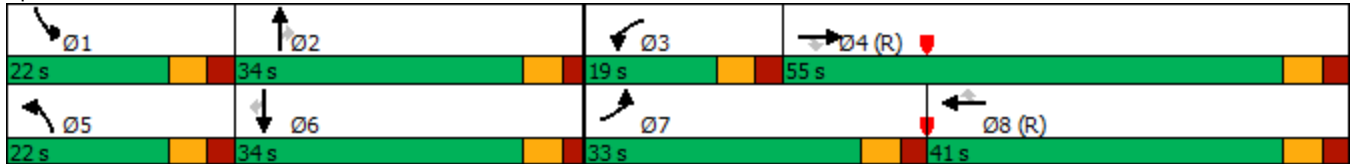
Analysis Period (min) 15

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2025 Existing Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road
03/25/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	158	1268	178	297	1294	324	215	277	296	347	297	119
Future Volume (vph)	158	1268	178	297	1294	324	215	277	296	347	297	119
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor												
Frt			0.850			0.850		0.923			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3349	1483	1691	3349	1498	3281	3107	0	3281	3187	0
Flt Permitted	0.079			0.071			0.950			0.950		
Satd. Flow (perm)	135	3349	1483	126	3349	1498	3281	3107	0	3281	3187	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			198			360		166			41	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1475.2			627.9			806.9			527.0	
Travel Time (s)		88.5			37.7			48.4			31.6	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	2%	0%	1%	1%	0%	1%	0%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	176	1409	198	330	1438	360	239	308	329	386	330	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	176	1409	198	330	1438	360	239	637	0	386	462	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

2025 Existing Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

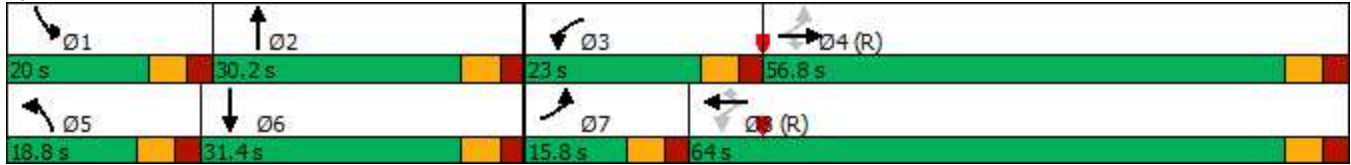
03/25/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	15.8	56.8	56.8	23.0	64.0	64.0	18.8	30.2		20.0	31.4	
Total Split (%)	12.2%	43.7%	43.7%	17.7%	49.2%	49.2%	14.5%	23.2%		15.4%	24.2%	
Maximum Green (s)	9.7	50.4	50.4	16.9	57.6	57.6	12.5	24.0		13.7	25.2	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	61.2	50.4	50.4	74.5	57.6	57.6	12.2	23.2		13.7	24.7	
Actuated g/C Ratio	0.47	0.39	0.39	0.57	0.44	0.44	0.09	0.18		0.11	0.19	
v/c Ratio	0.96	1.09	0.28	1.16	0.97	0.42	0.78	0.92		1.12	0.72	
Control Delay	91.6	89.7	4.5	131.3	49.1	4.1	75.1	58.6		136.5	52.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	91.6	89.7	4.5	131.3	49.1	4.1	75.1	58.6		136.5	52.1	
LOS	F	F	A	F	D	A	E	E		F	D	
Approach Delay		80.4			54.3			63.1			90.5	
Approach LOS		F			D			E			F	
Queue Length 50th (m)	~29.5	~196.0	0.0	~80.3	164.7	5.8	28.8	59.4		~53.8	49.4	
Queue Length 95th (m)	#73.2	#235.2	13.7	#134.3	#217.6	19.3	#45.0	#89.4		#82.6	66.8	
Internal Link Dist (m)		1451.2			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	183	1298	696	284	1483	864	315	708		345	650	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.96	1.09	0.28	1.16	0.97	0.42	0.76	0.90		1.12	0.71	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 150												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.16												
Intersection Signal Delay: 69.4						Intersection LOS: E						
Intersection Capacity Utilization 103.8%						ICU Level of Service G						
Analysis Period (min) 15												

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

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

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



2025 Existing Traffic Conditions
Weekend PM Peak Hour

2: Trinity Crossing Mall Access & Innes Road

03/25/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	1259	220	248	1379	536	299
Future Volume (vph)	1259	220	248	1379	536	299
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3349	1498	1691	3349	3281	1513
Flt Permitted			0.065		0.950	
Satd. Flow (perm)	3349	1459	116	3349	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		107				177
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1399	244	276	1532	596	332
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1399	244	276	1532	596	332
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

2025 Existing Traffic Conditions
Weekend PM Peak Hour

2: Trinity Crossing Mall Access & Innes Road

03/25/2025

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	62.0	62.0	16.0	78.0	52.0	52.0
Total Split (%)	47.7%	47.7%	12.3%	60.0%	40.0%	40.0%
Maximum Green (s)	55.1	55.1	10.0	71.1	45.0	45.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	55.1	55.1	86.8	85.9	30.2	30.2
Actuated g/C Ratio	0.42	0.42	0.67	0.66	0.23	0.23
v/c Ratio	0.99	0.36	0.73	0.69	0.78	0.69
Control Delay	32.5	7.6	58.2	6.9	54.2	27.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	32.5	7.6	58.2	6.9	54.2	27.9
LOS	C	A	E	A	D	C
Approach Delay	28.8			14.7	44.8	
Approach LOS	C			B	D	
Queue Length 50th (m)	175.9	20.6	47.9	35.3	68.5	33.8
Queue Length 95th (m)	m167.2	m18.5	m#92.0	40.4	81.0	60.4
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1419	680	378	2213	1135	631
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.36	0.73	0.69	0.53	0.53
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 69 (53%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 95						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.99						
Intersection Signal Delay: 26.4				Intersection LOS: C		
Intersection Capacity Utilization 84.3%				ICU Level of Service E		
Analysis Period (min) 15						

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



2025 Existing Traffic Conditions
Weekend PM Peak Hour

3: Drive In/Out Access & Innes Road
03/25/2025

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1479	79	0	1627	0	149
Future Volume (vph)	1479	79	0	1627	0	149
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3349	1498	0	3349	0	1540
Flt Permitted						
Satd. Flow (perm)	3349	1498	0	3349	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1643	88	0	1808	0	166
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1643	88	0	1808	0	166
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	59.8%			ICU Level of Service B		
Analysis Period (min)	15					

2025 Existing Traffic Conditions
Weekend PM Peak Hour

4: Lanthier Drive/Prestwick Drive & Innes Road

03/25/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	1503	67	88	1455	21	110	43	55	24	41	62
Future Volume (vph)	58	1503	67	88	1455	21	110	43	55	24	41	62
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.998			0.916			0.910	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1626	3349	1483	1658	3341	0	1674	1585	0	1626	1584	0
Flt Permitted	0.101			0.054			0.683			0.687		
Satd. Flow (perm)	173	3349	1435	94	3341	0	1195	1585	0	1173	1584	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		2			48			35	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	2%	2%	1%	0%	1%	2%	2%	4%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	1670	74	98	1617	23	122	48	61	27	46	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	1670	74	98	1640	0	122	109	0	27	115	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

2025 Existing Traffic Conditions
Weekend PM Peak Hour

4: Lanthier Drive/Prestwick Drive & Innes Road

03/25/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	71.0	71.0	71.0	18.0	89.0		41.0	41.0		41.0	41.0	
Total Split (%)	54.6%	54.6%	54.6%	13.8%	68.5%		31.5%	31.5%		31.5%	31.5%	
Maximum Green (s)	65.0	65.0	65.0	12.1	83.0		34.1	34.1		34.1	34.1	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	68.1	68.1	68.1	83.1	83.0		34.1	34.1		34.1	34.1	
Actuated g/C Ratio	0.52	0.52	0.52	0.64	0.64		0.26	0.26		0.26	0.26	
v/c Ratio	0.71	0.95	0.09	0.58	0.77		0.39	0.24		0.09	0.26	
Control Delay	58.7	42.1	9.7	38.9	9.7		43.9	23.0		37.3	27.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	58.7	42.1	9.7	38.9	9.7		43.9	23.0		37.3	27.9	
LOS	E	D	A	D	A		D	C		D	C	
Approach Delay		41.4			11.4			34.0			29.7	
Approach LOS		D			B			C			C	
Queue Length 50th (m)	9.7	136.4	2.9	9.4	132.8		23.8	11.1		4.8	14.7	
Queue Length 95th (m)	m12.6	m#224.0	m4.4	m11.9	m51.6		41.0	25.2		12.0	29.7	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	90	1754	791	205	2133		313	451		307	441	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.71	0.95	0.09	0.48	0.77		0.39	0.24		0.09	0.26	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 51 (39%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 95												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.95												
Intersection Signal Delay: 27.2					Intersection LOS: C							
Intersection Capacity Utilization 91.4%					ICU Level of Service F							
Analysis Period (min) 15												

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



2025 Existing Traffic Conditions
Weekend PM Peak Hour

5: Tenth Line Road & Innes Road
03/25/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	521	813	248	145	661	294	333	632	134	299	676	570
Future Volume (vph)	521	813	248	145	661	294	333	632	134	299	676	570
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3281	3349	1513	1674	3349	1498	3281	3382	1513	3248	3382	1513
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3281	3349	1513	1674	3349	1498	3281	3382	1513	3248	3382	1513
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			233			264			147			357
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	1%	1%	1%	0%	0%	0%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	579	903	276	161	734	327	370	702	149	332	751	633
Shared Lane Traffic (%)												
Lane Group Flow (vph)	579	903	276	161	734	327	370	702	149	332	751	633
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

2025 Existing Traffic Conditions
Weekend PM Peak Hour

5: Tenth Line Road & Innes Road
03/25/2025

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	30.0	44.0	44.0	30.0	44.0	44.0	22.0	34.0	34.0	22.0	34.0	34.0
Total Split (%)	23.1%	33.8%	33.8%	23.1%	33.8%	33.8%	16.9%	26.2%	26.2%	16.9%	26.2%	26.2%
Maximum Green (s)	23.7	37.5	37.5	23.7	37.5	37.5	15.7	28.0	28.0	15.7	28.0	28.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	23.7	43.6	43.6	17.6	37.5	37.5	15.7	28.3	28.3	15.4	28.0	28.0
Actuated g/C Ratio	0.18	0.34	0.34	0.14	0.29	0.29	0.12	0.22	0.22	0.12	0.22	0.22
v/c Ratio	0.97	0.80	0.42	0.71	0.76	0.53	0.93	0.96	0.34	0.86	1.03	1.05
Control Delay	51.3	45.7	20.0	70.3	48.2	11.7	88.0	74.2	8.9	78.0	91.3	71.0
Queue Delay	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	51.3	45.7	20.0	70.3	48.2	11.7	88.0	74.2	8.9	78.0	91.3	71.0
LOS	D	D	B	E	D	B	F	E	A	E	F	E
Approach Delay		43.5			41.3			70.4			81.2	
Approach LOS		D			D			E			F	
Queue Length 50th (m)	64.6	119.5	38.3	36.8	83.2	11.1	45.2	87.0	0.4	40.1	~99.7	~91.2
Queue Length 95th (m)	m#73.7	m126.6	m43.0	55.7	104.3	36.5	#71.9	#122.2	16.4	#61.8	#135.4	#157.4
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	598	1122	662	305	966	619	396	735	444	392	728	605
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.80	0.42	0.53	0.76	0.53	0.93	0.96	0.34	0.85	1.03	1.05

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 11 (8%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 59.5

Intersection LOS: E

Intersection Capacity Utilization 85.6%

ICU Level of Service E

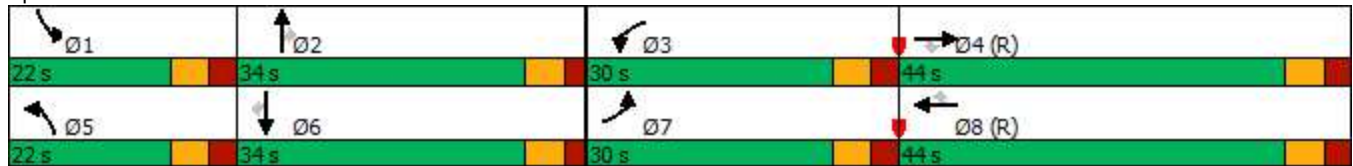
Analysis Period (min) 15

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2025 Background Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	1396	152	195	923	319	180	293	279	462	485	89
Future Volume (vph)	148	1396	152	195	923	319	180	293	279	462	485	89
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor	1.00		0.97			0.97	0.99	0.98		0.98	1.00	
Frt			0.850			0.850		0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3022	0	3281	3201	0
Flt Permitted	0.193			0.073			0.950			0.950		
Satd. Flow (perm)	333	3349	1473	129	3316	1445	3177	3022	0	3200	3201	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			319		162			15	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	148	1396	152	195	923	319	180	293	279	462	485	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	148	1396	152	195	923	319	180	572	0	462	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	18.2	59.4	59.4	16.4	57.6	57.6	16.4	30.2		24.0	37.8	
Total Split (%)	14.0%	45.7%	45.7%	12.6%	44.3%	44.3%	12.6%	23.2%		18.5%	29.1%	
Maximum Green (s)	12.1	53.0	53.0	10.3	51.2	51.2	10.1	24.0		17.7	31.6	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	63.9	53.0	53.0	66.5	54.6	54.6	9.9	22.1		17.7	29.9	
Actuated g/C Ratio	0.49	0.41	0.41	0.51	0.42	0.42	0.08	0.17		0.14	0.23	
v/c Ratio	0.55	1.02	0.21	0.92	0.66	0.40	0.73	0.88		1.04	0.77	
Control Delay	23.2	68.4	2.3	81.3	22.9	4.2	76.8	53.5		106.3	53.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	23.2	68.4	2.3	81.3	22.9	4.2	76.8	53.5		106.3	53.1	
LOS	C	E	A	F	C	A	E	D		F	D	
Approach Delay		58.5			26.7			59.1			76.8	
Approach LOS		E			C			E			E	
Queue Length 50th (m)	17.2	~184.0	0.0	~36.1	76.0	9.9	21.7	50.5		~60.3	64.3	
Queue Length 95th (m)	28.0	#223.0	7.0	#81.3	81.9	14.1	#35.6	#74.3		#90.8	83.2	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	289	1365	709	211	1393	792	249	690		446	789	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.51	1.02	0.21	0.92	0.66	0.40	0.72	0.83		1.04	0.73	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.04												
Intersection Signal Delay: 53.2												
Intersection LOS: D												
Intersection Capacity Utilization 106.3%												
ICU Level of Service G												
Analysis Period (min) 15												

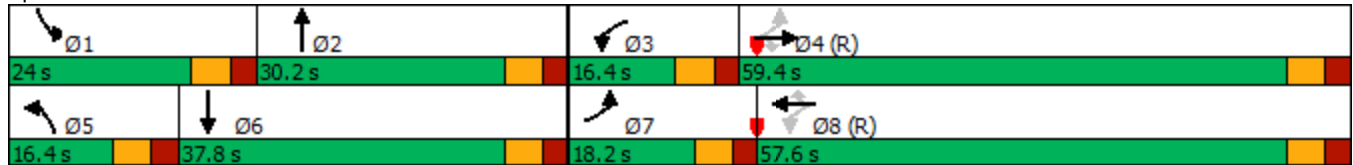
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

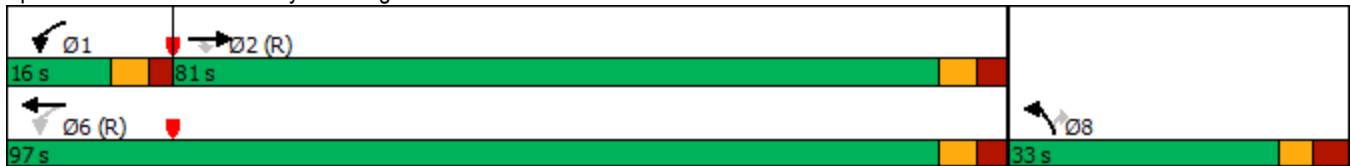


	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↙	↑↑	↖↖	↗
Traffic Volume (vph)	1655	185	157	1117	320	226
Future Volume (vph)	1655	185	157	1117	320	226
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.068		0.950	
Satd. Flow (perm)	3316	1459	121	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		92				148
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1655	185	157	1117	320	226
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1655	185	157	1117	320	226
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	81.0	81.0	16.0	97.0	33.0	33.0
Total Split (%)	62.3%	62.3%	12.3%	74.6%	25.4%	25.4%
Maximum Green (s)	74.1	74.1	10.0	90.1	26.0	26.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	79.7	79.7	98.4	97.5	18.6	18.6
Actuated g/C Ratio	0.61	0.61	0.76	0.75	0.14	0.14
v/c Ratio	0.81	0.20	0.67	0.46	0.68	0.67
Control Delay	21.1	9.3	35.5	14.8	60.1	28.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	21.1	9.3	35.5	14.8	60.1	28.1
LOS	C	A	D	B	E	C
Approach Delay	19.9			17.3	46.9	
Approach LOS	B			B	D	
Queue Length 50th (m)	113.3	10.7	25.7	71.4	37.7	17.0
Queue Length 95th (m)	m112.9	m10.8	#48.4	96.0	48.3	39.6
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	2032	929	238	2416	656	416
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.81	0.20	0.66	0.46	0.49	0.54
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 95						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.81						
Intersection Signal Delay: 23.1				Intersection LOS: C		
Intersection Capacity Utilization 84.5%				ICU Level of Service E		
Analysis Period (min) 15						

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



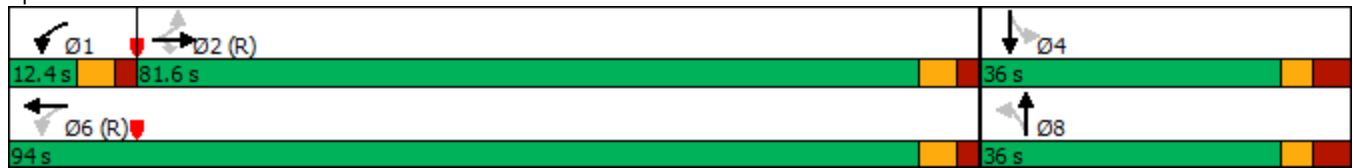
						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1828	53	0	1274	0	110
Future Volume (vph)	1828	53	0	1274	0	110
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1828	53	0	1274	0	110
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1828	53	0	1274	0	110
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.5%			ICU Level of Service C		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1763	111	82	1055	42	164	54	33	26	50	55
Future Volume (vph)	64	1763	111	82	1055	42	164	54	33	26	50	55
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.994			0.943			0.921	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3291	0	1658	1669	0	1691	1593	0
Flt Permitted	0.255			0.049			0.689			0.701		
Satd. Flow (perm)	444	3349	1449	86	3291	0	1194	1669	0	1245	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		7			22			39	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	1763	111	82	1055	42	164	54	33	26	50	55
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	1763	111	82	1097	0	164	87	0	26	105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	81.6	81.6	81.6	12.4	94.0		36.0	36.0		36.0	36.0	
Total Split (%)	62.8%	62.8%	62.8%	9.5%	72.3%		27.7%	27.7%		27.7%	27.7%	
Maximum Green (s)	75.6	75.6	75.6	6.5	88.0		29.1	29.1		29.1	29.1	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	75.7	75.7	75.7	88.1	88.0		29.1	29.1		29.1	29.1	
Actuated g/C Ratio	0.58	0.58	0.58	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.25	0.90	0.13	0.60	0.49		0.61	0.22		0.09	0.27	
Control Delay	11.0	30.5	3.8	32.7	11.7		56.6	32.3		41.2	28.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.0	30.5	3.8	32.7	11.7		56.6	32.3		41.2	28.2	
LOS	B	C	A	C	B		E	C		D	C	
Approach Delay		28.3			13.1			48.2			30.8	
Approach LOS		C			B			D			C	
Queue Length 50th (m)	7.9	230.4	6.2	6.0	93.2		35.1	12.5		4.9	12.7	
Queue Length 95th (m)	m8.5	249.2	m6.5	m14.2	101.0		57.8	25.9		12.2	27.7	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	258	1949	877	137	2230		267	390		278	386	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.90	0.13	0.60	0.49		0.61	0.22		0.09	0.27	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 105												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.90												
Intersection Signal Delay: 24.7												
Intersection LOS: C												
Intersection Capacity Utilization 96.1%												
ICU Level of Service F												
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	483	1107	232	171	568	264	180	613	218	384	732	431
Future Volume (vph)	483	1107	232	171	568	264	180	613	218	384	732	431
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3177	3349	1473	1653	3349	1473	3253	3316	1454	3184	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			237			241			395
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	483	1107	232	171	568	264	180	613	218	384	732	431
Shared Lane Traffic (%)												
Lane Group Flow (vph)	483	1107	232	171	568	264	180	613	218	384	732	431
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	33.9	52.0	52.0	21.0	39.1	39.1	16.1	34.0	34.0	23.0	40.9	40.9
Total Split (%)	26.1%	40.0%	40.0%	16.2%	30.1%	30.1%	12.4%	26.2%	26.2%	17.7%	31.5%	31.5%
Maximum Green (s)	27.6	45.5	45.5	14.7	32.6	32.6	9.8	28.0	28.0	16.7	34.9	34.9
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	23.9	46.2	46.2	14.7	37.0	37.0	9.7	27.2	27.2	16.7	34.3	34.3
Actuated g/C Ratio	0.18	0.36	0.36	0.11	0.28	0.28	0.07	0.21	0.21	0.13	0.26	0.26
v/c Ratio	0.81	0.93	0.36	0.91	0.60	0.45	0.74	0.88	0.44	0.92	0.83	0.64
Control Delay	48.4	35.4	9.2	103.4	44.1	9.5	77.3	65.0	6.5	84.1	54.2	10.2
Queue Delay	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	48.4	35.4	9.2	103.4	44.1	9.5	77.3	65.0	6.5	84.1	54.2	10.2
LOS	D	D	A	F	D	A	E	E	A	F	D	B
Approach Delay		35.5			45.1			54.6			49.4	
Approach LOS		D			D			D			D	
Queue Length 50th (m)	49.4	143.9	20.5	40.5	61.7	4.7	21.8	73.9	0.0	46.8	85.4	6.4
Queue Length 95th (m)	m55.0	m#167.8	m20.9	#79.5	82.3	26.6	#35.9	#99.8	13.7	#73.3	107.0	35.8
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	689	1191	642	187	954	589	247	714	502	417	899	680
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.93	0.36	0.91	0.60	0.45	0.73	0.86	0.43	0.92	0.81	0.63

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 44.9

Intersection LOS: D

Intersection Capacity Utilization 95.3%

ICU Level of Service F

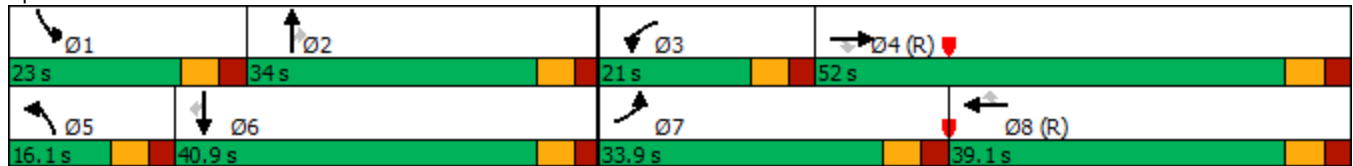
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2025 Background Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	1290	181	302	1317	330	219	282	301	353	302	121
Future Volume (vph)	161	1290	181	302	1317	330	219	282	301	353	302	121
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor			0.97			0.97	0.98	0.98		0.98	0.99	
Frt			0.850			0.850		0.923			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3007	0	3281	3104	0
Flt Permitted	0.088			0.072			0.950			0.950		
Satd. Flow (perm)	152	3349	1473	127	3316	1445	3168	3007	0	3201	3104	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			330		183			41	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	161	1290	181	302	1317	330	219	282	301	353	302	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	1290	181	302	1317	330	219	583	0	353	423	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	15.4	55.8	55.8	24.0	64.4	64.4	18.2	30.2		20.0	32.0	
Total Split (%)	11.8%	42.9%	42.9%	18.5%	49.5%	49.5%	14.0%	23.2%		15.4%	24.6%	
Maximum Green (s)	9.3	49.4	49.4	17.9	58.0	58.0	11.9	24.0		13.7	25.8	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	60.1	49.4	49.4	75.8	59.0	59.0	11.6	21.9		13.7	24.0	
Actuated g/C Ratio	0.46	0.38	0.38	0.58	0.45	0.45	0.09	0.17		0.11	0.18	
v/c Ratio	0.86	1.01	0.27	0.97	0.88	0.39	0.76	0.88		1.02	0.70	
Control Delay	66.8	68.8	4.7	75.7	34.5	4.2	75.5	51.8		111.1	51.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	66.8	68.8	4.7	75.7	34.5	4.2	75.5	51.8		111.1	51.0	
LOS	E	E	A	E	C	A	E	D		F	D	
Approach Delay		61.5			35.7			58.3			78.4	
Approach LOS		E			D			E			E	
Queue Length 50th (m)	23.6	~163.8	0.0	~63.6	139.7	6.7	26.3	49.3		~45.5	44.1	
Queue Length 95th (m)	#62.4	#207.6	13.1 m	#114.2	169.5	m13.6	#41.6	#71.1		#73.5	60.5	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	188	1272	672	311	1504	836	294	704		345	648	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.86	1.01	0.27	0.97	0.88	0.39	0.74	0.83		1.02	0.65	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.02												
Intersection Signal Delay: 53.8						Intersection LOS: D						
Intersection Capacity Utilization 106.5%						ICU Level of Service G						
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

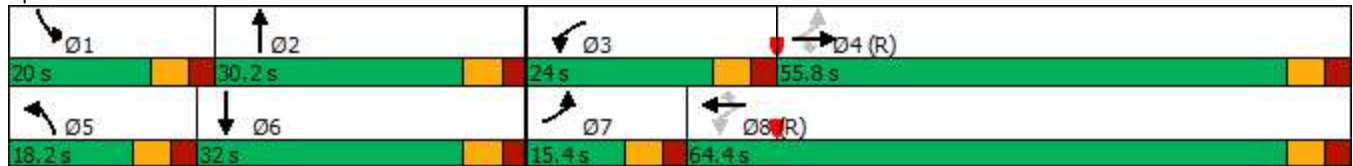
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1278	224	252	1404	545	304
Future Volume (vph)	1278	224	252	1404	545	304
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.112		0.950	
Satd. Flow (perm)	3316	1459	199	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		118				287
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1278	224	252	1404	545	304
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1278	224	252	1404	545	304
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	69.0	69.0	26.0	95.0	35.0	35.0
Total Split (%)	53.1%	53.1%	20.0%	73.1%	26.9%	26.9%
Maximum Green (s)	62.1	62.1	20.0	88.1	28.0	28.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	68.3	68.3	91.2	90.3	25.8	25.8
Actuated g/C Ratio	0.53	0.53	0.70	0.69	0.20	0.20
v/c Ratio	0.73	0.27	0.78	0.63	0.84	0.58
Control Delay	10.8	1.1	49.6	7.7	62.2	10.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.8	1.1	49.6	7.7	62.2	10.9
LOS	B	A	D	A	E	B
Approach Delay	9.4			14.1	43.8	
Approach LOS	A			B	D	
Queue Length 50th (m)	58.3	1.4	40.4	48.0	63.2	3.2
Queue Length 95th (m)	m85.5	m1.2	65.8	65.4	81.3	27.1
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1742	822	369	2237	706	546
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.27	0.68	0.63	0.77	0.56

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green

Natural Cycle: 85

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.84

Intersection Signal Delay: 18.6

Intersection LOS: B

Intersection Capacity Utilization 85.4%

ICU Level of Service E

Analysis Period (min) 15

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1514	68	0	1655	0	142
Future Volume (vph)	1514	68	0	1655	0	142
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1514	68	0	1655	0	142
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1514	68	0	1655	0	142
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	60.4%			ICU Level of Service B		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1529	68	90	1480	21	112	44	56	24	42	63
Future Volume (vph)	59	1529	68	90	1480	21	112	44	56	24	42	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.998			0.916			0.910	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3307	0	1658	1617	0	1691	1572	0
Flt Permitted	0.143			0.075			0.689			0.692		
Satd. Flow (perm)	249	3349	1449	132	3307	0	1194	1617	0	1229	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		2			45			53	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	59	1529	68	90	1480	21	112	44	56	24	42	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	1529	68	90	1501	0	112	100	0	24	105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	79.1	79.1	79.1	15.0	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	60.8%	60.8%	60.8%	11.5%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	73.1	73.1	73.1	9.1	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	74.5	74.5	74.5	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.57	0.57	0.57	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.42	0.80	0.08	0.50	0.67		0.42	0.25		0.09	0.27	
Control Delay	14.9	10.7	0.4	15.6	8.5		49.0	25.4		41.2	23.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.9	10.7	0.4	15.6	8.5		49.0	25.4		41.2	23.7	
LOS	B	B	A	B	A		D	C		D	C	
Approach Delay		10.5			8.9			37.9			26.9	
Approach LOS		B			A			D			C	
Queue Length 50th (m)	2.6	38.4	0.0	1.9	104.5		22.8	10.5		4.5	9.9	
Queue Length 95th (m)	m4.8	49.2	m0.0	m2.0	m112.9		40.2	24.8		11.5	24.7	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	142	1918	864	197	2241		266	395		274	391	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.42	0.80	0.08	0.46	0.67		0.42	0.25		0.09	0.27	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 95												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.80												
Intersection Signal Delay: 12.0 Intersection LOS: B												
Intersection Capacity Utilization 92.1% ICU Level of Service F												
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	530	827	252	148	672	299	339	643	136	304	688	580
Future Volume (vph)	530	827	252	148	672	299	339	643	136	304	688	580
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3187	3349	1473	1650	3349	1473	3251	3316	1454	3186	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			240			275			188			312
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	530	827	252	148	672	299	339	643	136	304	688	580
Shared Lane Traffic (%)												
Lane Group Flow (vph)	530	827	252	148	672	299	339	643	136	304	688	580
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	30.0	47.0	47.0	21.0	38.0	38.0	22.0	40.2	40.2	21.8	40.0	40.0
Total Split (%)	23.1%	36.2%	36.2%	16.2%	29.2%	29.2%	16.9%	30.9%	30.9%	16.8%	30.8%	30.8%
Maximum Green (s)	23.7	40.5	40.5	14.7	31.5	31.5	15.7	34.2	34.2	15.5	34.0	34.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	23.2	42.7	42.7	14.1	33.5	33.5	15.5	33.2	33.2	15.0	32.7	32.7
Actuated g/C Ratio	0.18	0.33	0.33	0.11	0.26	0.26	0.12	0.26	0.26	0.12	0.25	0.25
v/c Ratio	0.91	0.75	0.39	0.83	0.78	0.51	0.87	0.76	0.27	0.81	0.82	0.97
Control Delay	55.6	29.8	10.7	90.6	52.7	9.7	78.5	51.3	2.7	73.3	54.6	51.5
Queue Delay	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	55.6	29.8	10.7	90.6	52.7	9.7	78.5	51.3	2.7	73.3	54.6	51.5
LOS	E	C	B	F	D	A	E	D	A	E	D	D
Approach Delay		35.3			46.2			53.6			57.1	
Approach LOS		D			D			D			E	
Queue Length 50th (m)	56.3	100.9	24.4	34.6	79.6	4.4	41.0	73.3	0.0	36.4	79.7	71.9
Queue Length 95th (m)	#89.3	125.1	m32.6	#65.8	100.5	27.6	#63.1	93.3	4.5	#54.6	100.7	#140.0
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	592	1099	644	187	862	583	396	872	521	387	875	612
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.90	0.75	0.39	0.79	0.78	0.51	0.86	0.74	0.26	0.79	0.79	0.95

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 105

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.97

Intersection Signal Delay: 47.7

Intersection LOS: D

Intersection Capacity Utilization 90.6%

ICU Level of Service E

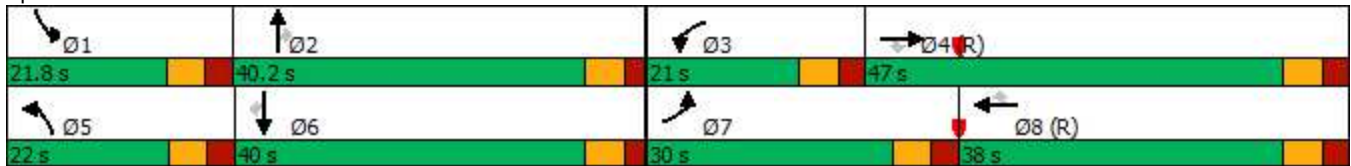
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2030 Background Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	1522	165	213	1006	348	196	319	304	503	529	96
Future Volume (vph)	161	1522	165	213	1006	348	196	319	304	503	529	96
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor	1.00		0.97			0.97	0.99	0.98		0.98	1.00	
Frt			0.850			0.850		0.927			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3022	0	3281	3201	0
Flt Permitted	0.150			0.074			0.950			0.950		
Satd. Flow (perm)	259	3349	1473	130	3316	1445	3180	3022	0	3206	3201	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			348		138			15	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	161	1522	165	213	1006	348	196	319	304	503	529	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	1522	165	213	1006	348	196	623	0	503	625	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

2030 Background Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 2

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	16.2	60.8	60.8	15.0	59.6	59.6	17.2	30.2		24.0	37.0	
Total Split (%)	12.5%	46.8%	46.8%	11.5%	45.8%	45.8%	13.2%	23.2%		18.5%	28.5%	
Maximum Green (s)	10.1	54.4	54.4	8.9	53.2	53.2	10.9	24.0		17.7	30.8	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	64.5	54.4	54.4	63.7	54.0	54.0	10.7	23.5		17.7	30.6	
Actuated g/C Ratio	0.50	0.42	0.42	0.49	0.42	0.42	0.08	0.18		0.14	0.24	
v/c Ratio	0.69	1.09	0.23	1.22	0.73	0.43	0.75	0.95		1.13	0.82	
Control Delay	32.5	87.5	3.1	169.0	24.8	4.0	75.9	64.7		132.4	55.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	32.5	87.5	3.1	169.0	24.8	4.0	75.9	64.7		132.4	55.8	
LOS	C	F	A	F	C	A	E	E		F	E	
Approach Delay		75.2			39.8			67.4			90.0	
Approach LOS		E			D			E			F	
Queue Length 50th (m)	18.9	~211.8	0.0	~50.0	76.4	6.2	23.6	61.5		~70.6	72.2	
Queue Length 95th (m)	#34.0	#251.1	9.1	#96.5	93.5	8.5	#37.9	#93.6		#102.0	92.6	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	236	1401	723	175	1377	803	269	670		446	769	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.68	1.09	0.23	1.22	0.73	0.43	0.73	0.93		1.13	0.81	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.22												
Intersection Signal Delay: 66.8						Intersection LOS: E						
Intersection Capacity Utilization 113.4%						ICU Level of Service H						
Analysis Period (min) 15												

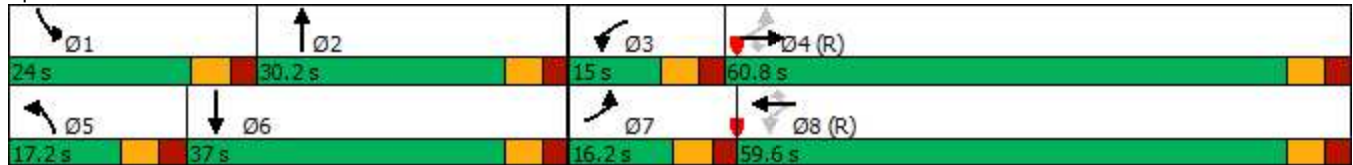
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1805	202	171	1218	349	246
Future Volume (vph)	1805	202	171	1218	349	246
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.048		0.950	
Satd. Flow (perm)	3316	1459	85	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		95				118
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1805	202	171	1218	349	246
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1805	202	171	1218	349	246
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	83.0	83.0	14.0	97.0	33.0	33.0
Total Split (%)	63.8%	63.8%	10.8%	74.6%	25.4%	25.4%
Maximum Green (s)	76.1	76.1	8.0	90.1	26.0	26.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	76.5	76.5	97.5	96.6	19.5	19.5
Actuated g/C Ratio	0.59	0.59	0.75	0.74	0.15	0.15
v/c Ratio	0.92	0.23	0.72	0.51	0.71	0.76
Control Delay	23.8	9.4	42.7	15.6	60.3	42.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	23.8	9.4	42.7	15.6	60.3	42.2
LOS	C	A	D	B	E	D
Approach Delay	22.4			19.0	52.8	
Approach LOS	C			B	D	
Queue Length 50th (m)	123.4	12.1	29.9	82.4	41.0	29.7
Queue Length 95th (m)	m115.3	m10.4	m#74.2	107.3	52.5	54.2
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1952	897	237	2393	656	392
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.92	0.23	0.72	0.51	0.53	0.63
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 115						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.92						
Intersection Signal Delay: 25.7				Intersection LOS: C		
Intersection Capacity Utilization 90.5%				ICU Level of Service E		
Analysis Period (min) 15						

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑		↑↑		↑
Traffic Volume (vph)	1993	58	0	1389	0	120
Future Volume (vph)	1993	58	0	1389	0	120
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1993	58	0	1389	0	120
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1993	58	0	1389	0	120
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	72.9%			ICU Level of Service C		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	1922	121	90	1150	45	179	59	35	29	54	60
Future Volume (vph)	70	1922	121	90	1150	45	179	59	35	29	54	60
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.994			0.944			0.921	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3291	0	1658	1671	0	1691	1593	0
Flt Permitted	0.219			0.048			0.684			0.696		
Satd. Flow (perm)	382	3349	1449	85	3291	0	1185	1671	0	1236	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		7			21			40	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	70	1922	121	90	1150	45	179	59	35	29	54	60
Shared Lane Traffic (%)												
Lane Group Flow (vph)	70	1922	121	90	1195	0	179	94	0	29	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

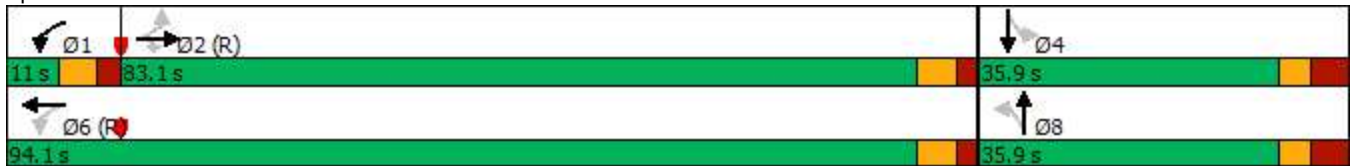
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	83.1	83.1	83.1	11.0	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	63.9%	63.9%	63.9%	8.5%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	77.1	77.1	77.1	5.1	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	77.1	77.1	77.1	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.59	0.59	0.59	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.31	0.97	0.14	0.75	0.54		0.68	0.24		0.11	0.30	
Control Delay	10.4	33.2	3.1	46.7	10.7		60.5	33.9		41.6	29.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	10.4	33.2	3.1	46.7	10.7		60.5	33.9		41.6	29.3	
LOS	B	C	A	D	B		E	C		D	C	
Approach Delay		30.7			13.2			51.3			31.8	
Approach LOS		C			B			D			C	
Queue Length 50th (m)	7.3	253.0	5.2	4.8	97.4		38.9	14.1		5.5	14.4	
Queue Length 95th (m)	m8.4	#283.0	m5.9	m#18.5	105.4		#63.9	28.1		13.3	29.8	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	226	1986	892	120	2232		264	389		275	386	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.31	0.97	0.14	0.75	0.54		0.68	0.24		0.11	0.30	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 115												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.97												
Intersection Signal Delay: 26.3												
Intersection LOS: C												
Intersection Capacity Utilization 101.2%												
ICU Level of Service G												
Analysis Period (min) 15												

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



2030 Background Traffic Conditions
Weekday PM Peak Hour

5: Tenth Line Road & Innes Road

Page 11

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	527	1206	253	186	619	287	196	669	237	418	797	470
Future Volume (vph)	527	1206	253	186	619	287	196	669	237	418	797	470
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3182	3349	1473	1653	3349	1473	3255	3316	1454	3189	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			237			241			354
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	527	1206	253	186	619	287	196	669	237	418	797	470
Shared Lane Traffic (%)												
Lane Group Flow (vph)	527	1206	253	186	619	287	196	669	237	418	797	470
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	31.3	52.0	52.0	21.0	41.7	41.7	15.2	34.0	34.0	23.0	41.8	41.8
Total Split (%)	24.1%	40.0%	40.0%	16.2%	32.1%	32.1%	11.7%	26.2%	26.2%	17.7%	32.2%	32.2%
Maximum Green (s)	25.0	45.5	45.5	14.7	35.2	35.2	8.9	28.0	28.0	16.7	35.8	35.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	24.0	45.5	45.5	14.8	36.3	36.3	8.9	27.9	27.9	16.7	35.7	35.7
Actuated g/C Ratio	0.18	0.35	0.35	0.11	0.28	0.28	0.07	0.21	0.21	0.13	0.27	0.27
v/c Ratio	0.88	1.03	0.40	0.98	0.66	0.49	0.88	0.94	0.47	1.00	0.87	0.72
Control Delay	51.3	53.4	10.1	119.3	45.8	11.4	94.7	72.4	8.2	100.9	56.1	17.3
Queue Delay	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	51.3	53.4	10.1	119.3	45.8	11.4	94.7	72.4	8.2	100.9	56.1	17.3
LOS	D	D	B	F	D	B	F	E	A	F	E	B
Approach Delay		47.3			49.3			62.6			56.4	
Approach LOS		D			D			E			E	
Queue Length 50th (m)	56.5	~164.0	22.3	44.5	69.0	8.9	24.0	82.3	0.0	~51.7	94.4	23.3
Queue Length 95th (m)	m60.1	m#174.6	m22.8	#88.4	88.0	32.5	#43.6	#115.3	18.7	#82.7	#122.7	61.8
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	624	1172	635	189	936	582	224	714	502	417	922	658
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	1.03	0.40	0.98	0.66	0.49	0.88	0.94	0.47	1.00	0.86	0.71

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 53.2

Intersection LOS: D

Intersection Capacity Utilization 100.9%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

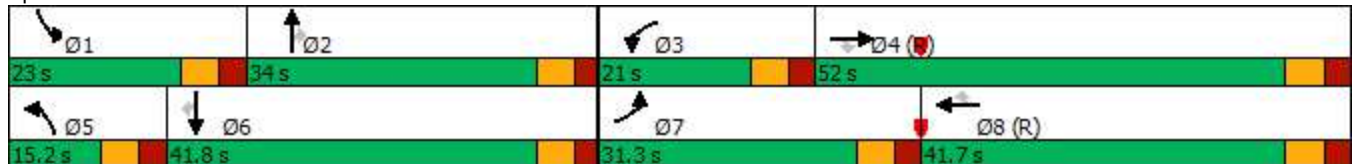
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2030 Background Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	1406	197	329	1437	359	238	307	328	385	329	132
Future Volume (vph)	175	1406	197	329	1437	359	238	307	328	385	329	132
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor			0.97			0.97	0.99	0.98		0.98	0.99	
Frt			0.850			0.850		0.923			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3007	0	3281	3104	0
Flt Permitted	0.079			0.071			0.950			0.950		
Satd. Flow (perm)	137	3349	1473	125	3316	1445	3170	3007	0	3207	3104	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			197			359		165			41	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	175	1406	197	329	1437	359	238	307	328	385	329	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	1406	197	329	1437	359	238	635	0	385	461	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	15.6	56.8	56.8	23.0	64.2	64.2	18.9	30.2		20.0	31.3	
Total Split (%)	12.0%	43.7%	43.7%	17.7%	49.4%	49.4%	14.5%	23.2%		15.4%	24.1%	
Maximum Green (s)	9.5	50.4	50.4	16.9	57.8	57.8	12.6	24.0		13.7	25.1	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	60.8	50.4	50.4	74.3	57.8	57.8	12.3	23.4		13.7	24.8	
Actuated g/C Ratio	0.47	0.39	0.39	0.57	0.44	0.44	0.09	0.18		0.11	0.19	
v/c Ratio	0.97	1.08	0.29	1.18	0.97	0.43	0.78	0.94		1.12	0.74	
Control Delay	93.4	88.9	4.6	136.7	46.1	4.2	75.8	61.5		135.6	52.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	93.4	88.9	4.6	136.7	46.1	4.2	75.8	61.5		135.6	52.9	
LOS	F	F	A	F	D	A	E	E		F	D	
Approach Delay		80.0			53.0			65.4			90.6	
Approach LOS		E			D			E			F	
Queue Length 50th (m)	~29.0	~195.2	0.0	~80.5	175.8	5.2	28.7	59.7		~53.6	49.6	
Queue Length 95th (m)	#72.6	#234.4	13.7 m	#126.0	#222.0	m13.3	#45.2	#91.5		#82.6	67.1	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	181	1298	691	280	1474	841	311	689		345	632	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.97	1.08	0.29	1.18	0.97	0.43	0.77	0.92		1.12	0.73	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 150												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.18												
Intersection Signal Delay: 69.1						Intersection LOS: E						
Intersection Capacity Utilization 113.8%						ICU Level of Service H						
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

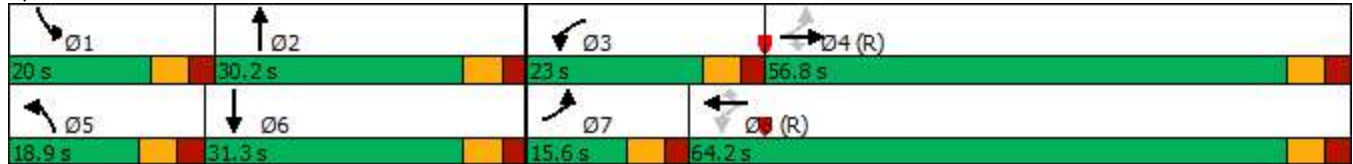
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

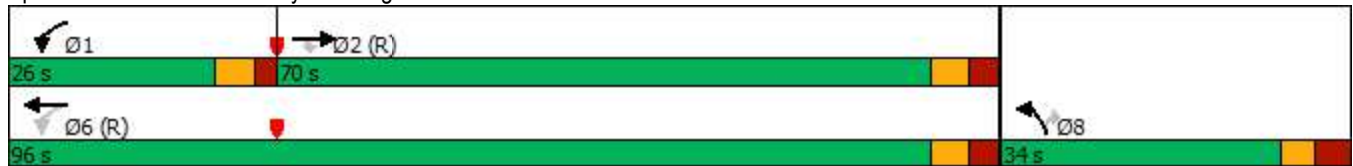


						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↓	↑↑	↓	↑
Traffic Volume (vph)	1392	244	275	1531	594	332
Future Volume (vph)	1392	244	275	1531	594	332
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.076		0.950	
Satd. Flow (perm)	3316	1459	135	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		120				279
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1392	244	275	1531	594	332
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1392	244	275	1531	594	332
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	70.0	70.0	26.0	96.0	34.0	34.0
Total Split (%)	53.8%	53.8%	20.0%	73.8%	26.2%	26.2%
Maximum Green (s)	63.1	63.1	20.0	89.1	27.0	27.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	65.4	65.4	90.8	89.9	26.2	26.2
Actuated g/C Ratio	0.50	0.50	0.70	0.69	0.20	0.20
v/c Ratio	0.83	0.31	0.87	0.69	0.90	0.63
Control Delay	13.0	1.2	64.3	9.5	68.1	15.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.0	1.2	64.3	9.5	68.1	15.1
LOS	B	A	E	A	E	B
Approach Delay	11.3			17.8	49.1	
Approach LOS	B			B	D	
Queue Length 50th (m)	107.3	1.8	53.4	56.2	70.5	10.4
Queue Length 95th (m)	m88.2	m1.3	m#86.1	85.6	#97.1	38.8
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1668	793	333	2227	681	530
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.31	0.83	0.69	0.87	0.63
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 95						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.90						
Intersection Signal Delay: 22.0				Intersection LOS: C		
Intersection Capacity Utilization 91.4%				ICU Level of Service F		
Analysis Period (min) 15						

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	1650	74	0	1805	0	155
Future Volume (vph)	1650	74	0	1805	0	155
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1650	74	0	1805	0	155
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1650	74	0	1805	0	155
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	65.2%			ICU Level of Service C		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1667	74	98	1614	23	122	48	61	27	45	69
Future Volume (vph)	64	1667	74	98	1614	23	122	48	61	27	45	69
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.998			0.916			0.909	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3307	0	1658	1617	0	1691	1570	0
Flt Permitted	0.112			0.051			0.684			0.687		
Satd. Flow (perm)	195	3349	1449	90	3307	0	1185	1617	0	1220	1570	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		2			45			44	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	1667	74	98	1614	23	122	48	61	27	45	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	1667	74	98	1637	0	122	109	0	27	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	80.1	80.1	80.1	14.0	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	61.6%	61.6%	61.6%	10.8%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	74.1	74.1	74.1	8.1	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	74.6	74.6	74.6	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.57	0.57	0.57	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.57	0.87	0.09	0.64	0.73		0.46	0.28		0.10	0.30	
Control Delay	23.7	12.7	0.6	31.4	9.1		50.4	26.8		41.4	28.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.7	12.7	0.6	31.4	9.1		50.4	26.8		41.4	28.0	
LOS	C	B	A	C	A		D	C		D	C	
Approach Delay		12.6			10.3			39.3			30.5	
Approach LOS		B			B			D			C	
Queue Length 50th (m)	3.1	45.0	0.0	5.8	113.4		25.1	12.3		5.1	13.5	
Queue Length 95th (m)	m5.0	57.8	m0.0	m7.4	m117.8		43.4	27.3		12.7	28.9	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	112	1920	866	159	2241		264	395		272	384	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.57	0.87	0.09	0.62	0.73		0.46	0.28		0.10	0.30	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 95												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.87												
Intersection Signal Delay: 13.8					Intersection LOS: B							
Intersection Capacity Utilization 96.1%					ICU Level of Service F							
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	578	902	275	161	734	326	369	701	149	332	750	632
Future Volume (vph)	578	902	275	161	734	326	369	701	149	332	750	632
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3192	3349	1473	1651	3349	1473	3254	3316	1454	3191	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			243			269			188			305
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	578	902	275	161	734	326	369	701	149	332	750	632
Shared Lane Traffic (%)												
Lane Group Flow (vph)	578	902	275	161	734	326	369	701	149	332	750	632
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	30.0	48.4	48.4	20.0	38.4	38.4	21.6	38.8	38.8	22.8	40.0	40.0
Total Split (%)	23.1%	37.2%	37.2%	15.4%	29.5%	29.5%	16.6%	29.8%	29.8%	17.5%	30.8%	30.8%
Maximum Green (s)	23.7	41.9	41.9	13.7	31.9	31.9	15.3	32.8	32.8	16.5	34.0	34.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	23.7	41.9	41.9	13.7	31.9	31.9	15.3	33.3	33.3	16.0	34.0	34.0
Actuated g/C Ratio	0.18	0.32	0.32	0.11	0.25	0.25	0.12	0.26	0.26	0.12	0.26	0.26
v/c Ratio	0.98	0.84	0.43	0.93	0.89	0.58	0.96	0.83	0.29	0.83	0.86	1.04
Control Delay	64.3	31.1	10.1	108.5	61.9	13.2	92.8	55.2	3.6	73.6	56.6	72.1
Queue Delay	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	64.3	31.1	10.1	108.5	61.9	13.2	92.8	55.2	3.6	73.6	56.6	72.1
LOS	E	C	B	F	E	B	F	E	A	E	E	E
Approach Delay		38.8			55.1			60.3			65.6	
Approach LOS		D			E			E			E	
Queue Length 50th (m)	64.3	111.5	23.7	38.3	88.6	10.6	45.3	82.9	0.0	39.8	89.1	~104.3
Queue Length 95th (m)	m#92.8	m134.5	m29.8	#76.8	#118.9	37.4	#72.9	#104.5	7.7	#59.3	#113.4	#170.5
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	592	1079	639	174	821	564	386	848	512	412	875	607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.84	0.43	0.93	0.89	0.58	0.96	0.83	0.29	0.81	0.86	1.04

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 54.4

Intersection LOS: D

Intersection Capacity Utilization 94.2%

ICU Level of Service F

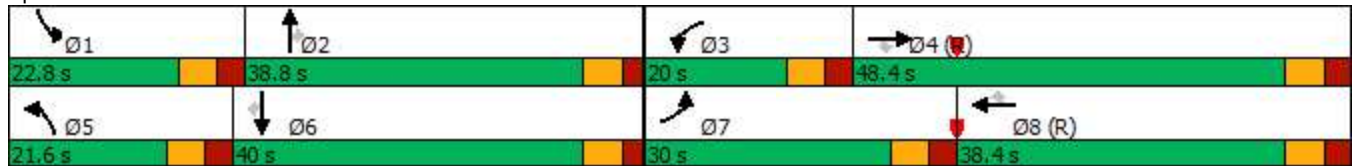
Analysis Period (min) 15

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

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

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2025 Total Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	1423	152	198	947	326	180	293	283	470	485	89
Future Volume (vph)	148	1423	152	198	947	326	180	293	283	470	485	89
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor	1.00		0.97			0.97	0.99	0.98		0.98	1.00	
Frt			0.850			0.850		0.926			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3018	0	3281	3201	0
Flt Permitted	0.189			0.072			0.950			0.950		
Satd. Flow (perm)	326	3349	1473	127	3316	1445	3177	3018	0	3201	3201	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			326		161			15	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	148	1423	152	198	947	326	180	293	283	470	485	89
Shared Lane Traffic (%)												
Lane Group Flow (vph)	148	1423	152	198	947	326	180	576	0	470	574	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

2025 Total Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 2

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	16.6	59.2	59.2	16.6	59.2	59.2	16.4	30.2		24.0	37.8	
Total Split (%)	12.8%	45.5%	45.5%	12.8%	45.5%	45.5%	12.6%	23.2%		18.5%	29.1%	
Maximum Green (s)	10.5	52.8	52.8	10.5	52.8	52.8	10.1	24.0		17.7	31.6	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	62.9	52.8	52.8	67.3	55.3	55.3	9.9	22.2		17.7	30.0	
Actuated g/C Ratio	0.48	0.41	0.41	0.52	0.43	0.43	0.08	0.17		0.14	0.23	
v/c Ratio	0.58	1.05	0.21	0.93	0.67	0.41	0.73	0.89		1.05	0.77	
Control Delay	24.8	75.2	2.4	73.7	30.8	7.3	76.8	54.3		110.8	52.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	24.8	75.2	2.4	73.7	30.8	7.3	76.8	54.3		110.8	52.9	
LOS	C	E	A	E	C	A	E	D		F	D	
Approach Delay		64.5			31.4			59.6			78.9	
Approach LOS		E			C			E			E	
Queue Length 50th (m)	17.2	~191.6	0.0	~37.3	93.0	15.0	21.7	51.3		~62.3	64.3	
Queue Length 95th (m)	28.0	#230.8	7.0	#81.9	111.6	28.6	#35.6	#75.9		#93.1	83.2	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	265	1360	707	212	1410	802	249	688		446	789	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.56	1.05	0.21	0.93	0.67	0.41	0.72	0.84		1.05	0.73	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.05												
Intersection Signal Delay: 57.0												
Intersection LOS: E												
Intersection Capacity Utilization 107.6%												
ICU Level of Service G												
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

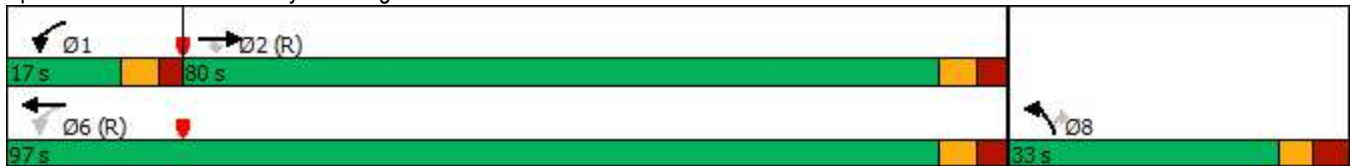


	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	1663	216	165	1117	355	229
Future Volume (vph)	1663	216	165	1117	355	229
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.063		0.950	
Satd. Flow (perm)	3316	1459	112	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		105				159
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1663	216	165	1117	355	229
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1663	216	165	1117	355	229
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	80.0	80.0	17.0	97.0	33.0	33.0
Total Split (%)	61.5%	61.5%	13.1%	74.6%	25.4%	25.4%
Maximum Green (s)	73.1	73.1	11.0	90.1	26.0	26.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	78.2	78.2	97.4	96.5	19.6	19.6
Actuated g/C Ratio	0.60	0.60	0.75	0.74	0.15	0.15
v/c Ratio	0.83	0.24	0.71	0.47	0.72	0.64
Control Delay	9.8	0.7	53.0	3.2	60.6	24.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.8	0.7	53.0	3.2	60.6	24.6
LOS	A	A	D	A	E	C
Approach Delay	8.7			9.6	46.5	
Approach LOS	A			A	D	
Queue Length 50th (m)	93.1	1.0	22.0	11.5	41.8	15.0
Queue Length 95th (m)	m125.0	m0.6	#52.9	34.4	53.3	37.9
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1995	919	239	2389	656	425
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.83	0.24	0.69	0.47	0.54	0.54
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 95						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.83						
Intersection Signal Delay: 14.9				Intersection LOS: B		
Intersection Capacity Utilization 86.2%				ICU Level of Service E		
Analysis Period (min) 15						

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1831	61	0	1282	0	128
Future Volume (vph)	1831	61	0	1282	0	128
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1831	61	0	1282	0	128
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1831	61	0	1282	0	128
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization 68.7%			ICU Level of Service C			
Analysis Period (min) 15						

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1783	111	105	1061	42	164	55	40	26	52	57
Future Volume (vph)	65	1783	111	105	1061	42	164	55	40	26	52	57
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.994			0.937			0.922	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3291	0	1658	1658	0	1691	1594	0
Flt Permitted	0.255			0.049			0.687			0.695		
Satd. Flow (perm)	444	3349	1449	86	3291	0	1191	1658	0	1234	1594	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		7			26			39	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	65	1783	111	105	1061	42	164	55	40	26	52	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	65	1783	111	105	1103	0	164	95	0	26	109	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

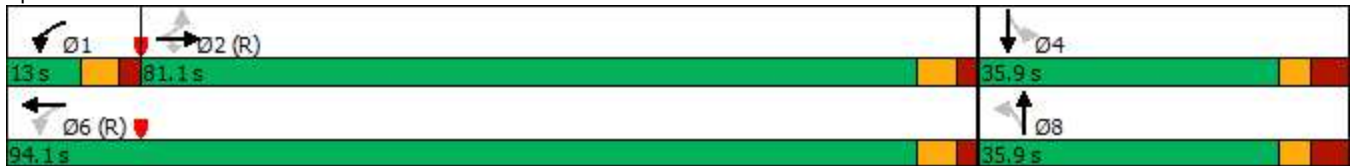
												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	81.1	81.1	81.1	13.0	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	62.4%	62.4%	62.4%	10.0%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	75.1	75.1	75.1	7.1	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	75.1	75.1	75.1	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.58	0.58	0.58	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.25	0.92	0.13	0.73	0.49		0.62	0.24		0.09	0.28	
Control Delay	12.2	19.4	3.1	44.0	9.2		57.0	31.8		41.3	28.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	12.2	19.4	3.1	44.0	9.2		57.0	31.8		41.3	28.8	
LOS	B	B	A	D	A		E	C		D	C	
Approach Delay		18.2			12.2			47.7			31.2	
Approach LOS		B			B			D			C	
Queue Length 50th (m)	3.6	56.2	1.1	6.0	85.3		35.2	13.3		4.9	13.5	
Queue Length 95th (m)	m6.2	75.6	m2.8	m#28.3	93.7		57.8	27.3		12.3	28.6	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	256	1935	871	145	2232		265	390		275	385	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.25	0.92	0.13	0.72	0.49		0.62	0.24		0.09	0.28	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 105												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.92												
Intersection Signal Delay: 18.8					Intersection LOS: B							
Intersection Capacity Utilization 98.0%					ICU Level of Service F							
Analysis Period (min) 15												

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	493	1121	234	171	583	264	182	613	218	384	732	443
Future Volume (vph)	493	1121	234	171	583	264	182	613	218	384	732	443
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3178	3349	1473	1653	3349	1473	3253	3316	1454	3184	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			237			241			337
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	493	1121	234	171	583	264	182	613	218	384	732	443
Shared Lane Traffic (%)												
Lane Group Flow (vph)	493	1121	234	171	583	264	182	613	218	384	732	443
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	29.8	52.0	52.0	21.0	43.2	43.2	16.2	34.0	34.0	23.0	40.8	40.8
Total Split (%)	22.9%	40.0%	40.0%	16.2%	33.2%	33.2%	12.5%	26.2%	26.2%	17.7%	31.4%	31.4%
Maximum Green (s)	23.5	45.5	45.5	14.7	36.7	36.7	9.9	28.0	28.0	16.7	34.8	34.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	22.6	46.2	46.2	14.7	38.4	38.4	9.8	27.2	27.2	16.7	34.2	34.2
Actuated g/C Ratio	0.17	0.36	0.36	0.11	0.30	0.30	0.08	0.21	0.21	0.13	0.26	0.26
v/c Ratio	0.87	0.94	0.36	0.91	0.59	0.44	0.74	0.88	0.44	0.92	0.83	0.70
Control Delay	51.0	39.1	10.9	103.4	42.5	8.9	77.2	65.0	6.5	84.1	54.5	17.0
Queue Delay	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	51.0	39.1	10.9	103.4	42.5	8.9	77.2	65.0	6.5	84.1	54.5	17.0
LOS	D	D	B	F	D	A	E	E	A	F	D	B
Approach Delay		38.7			44.0			54.6			51.1	
Approach LOS		D			D			D			D	
Queue Length 50th (m)	52.1	146.2	22.8	40.5	63.0	4.7	22.0	73.9	0.0	46.8	85.5	20.8
Queue Length 95th (m)	m60.1	m#167.5	m23.5	#79.5	80.9	25.2	#36.3	#99.8	13.7	#73.3	107.1	57.4
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	587	1191	642	187	988	601	249	714	502	417	896	637
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.84	0.94	0.36	0.91	0.59	0.44	0.73	0.86	0.43	0.92	0.82	0.70

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 125

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 46.2

Intersection LOS: D

Intersection Capacity Utilization 95.7%

ICU Level of Service F

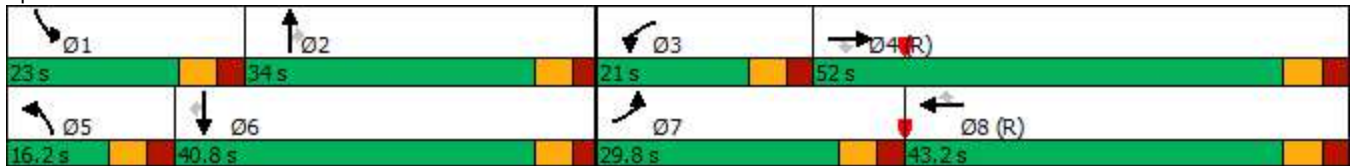
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2025 Total Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	1334	181	308	1359	342	219	282	307	365	302	121
Future Volume (vph)	161	1334	181	308	1359	342	219	282	307	365	302	121
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor			0.97			0.97	0.98	0.98		0.98	0.99	
Frt			0.850			0.850		0.922			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3004	0	3281	3104	0
Flt Permitted	0.081			0.072			0.950			0.950		
Satd. Flow (perm)	140	3349	1473	127	3316	1445	3168	3004	0	3202	3104	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			182			342		179			41	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	161	1334	181	308	1359	342	219	282	307	365	302	121
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	1334	181	308	1359	342	219	589	0	365	423	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	15.5	55.8	55.8	23.7	64.0	64.0	18.2	30.2		20.3	32.3	
Total Split (%)	11.9%	42.9%	42.9%	18.2%	49.2%	49.2%	14.0%	23.2%		15.6%	24.8%	
Maximum Green (s)	9.4	49.4	49.4	17.6	57.6	57.6	11.9	24.0		14.0	26.1	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	59.8	49.4	49.4	75.1	58.5	58.5	11.6	22.3		14.0	24.7	
Actuated g/C Ratio	0.46	0.38	0.38	0.58	0.45	0.45	0.09	0.17		0.11	0.19	
v/c Ratio	0.89	1.05	0.27	1.02	0.91	0.41	0.76	0.89		1.03	0.68	
Control Delay	75.3	78.3	4.7	87.4	36.8	4.1	75.5	52.5		112.8	49.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	75.3	78.3	4.7	87.4	36.8	4.1	75.5	52.5		112.8	49.9	
LOS	E	E	A	F	D	A	E	D		F	D	
Approach Delay		70.1			39.0			58.7			79.0	
Approach LOS		E			D			E			E	
Queue Length 50th (m)	24.8	~180.0	0.0	~67.7	149.4	5.8	26.3	50.8		~47.5	44.0	
Queue Length 95th (m)	#64.4	#218.9	13.1 m	#114.3	#199.7	m12.1	#41.6	#75.7		#75.8	60.3	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	181	1272	672	302	1493	838	294	700		353	655	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.89	1.05	0.27	1.02	0.91	0.41	0.74	0.84		1.03	0.65	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 150												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.05												
Intersection Signal Delay: 57.8						Intersection LOS: E						
Intersection Capacity Utilization 108.6%						ICU Level of Service G						
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

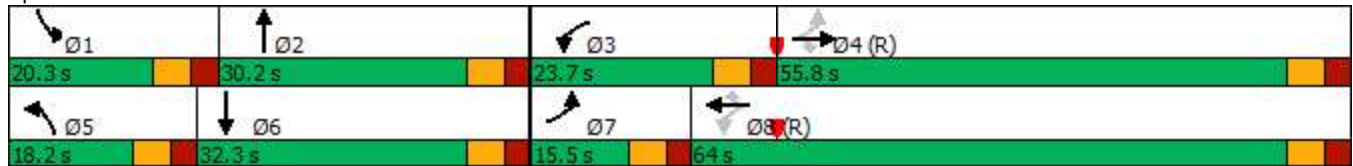
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	1290	273	262	1404	605	310
Future Volume (vph)	1290	273	262	1404	605	310
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.100		0.950	
Satd. Flow (perm)	3316	1459	178	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		141				289
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1290	273	262	1404	605	310
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1290	273	262	1404	605	310
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	68.0	68.0	26.0	94.0	36.0	36.0
Total Split (%)	52.3%	52.3%	20.0%	72.3%	27.7%	27.7%
Maximum Green (s)	61.1	61.1	20.0	87.1	29.0	29.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	65.6	65.6	89.5	88.6	27.5	27.5
Actuated g/C Ratio	0.50	0.50	0.69	0.68	0.21	0.21
v/c Ratio	0.77	0.34	0.82	0.64	0.87	0.57
Control Delay	12.4	1.3	56.3	8.1	63.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	1.3	56.3	8.1	63.8	10.8
LOS	B	A	E	A	E	B
Approach Delay	10.5			15.7	45.8	
Approach LOS	B			B	D	
Queue Length 50th (m)	89.8	1.8	46.1	52.4	70.6	3.9
Queue Length 95th (m)	m89.5	m1.3	#74.2	67.5	#91.0	27.9
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1673	806	355	2195	731	556
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.77	0.34	0.74	0.64	0.83	0.56
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 85						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.87						
Intersection Signal Delay: 20.4				Intersection LOS: C		
Intersection Capacity Utilization 88.0%				ICU Level of Service E		
Analysis Period (min) 15						

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1520	80	0	1665	0	172
Future Volume (vph)	1520	80	0	1665	0	172
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1520	80	0	1665	0	172
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1520	80	0	1665	0	172
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	62.4%			ICU Level of Service B		
Analysis Period (min)	15					

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	59	1565	68	128	1490	21	112	44	68	24	42	63
Future Volume (vph)	59	1565	68	128	1490	21	112	44	68	24	42	63
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.998			0.909			0.910	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3307	0	1658	1604	0	1691	1572	0
Flt Permitted	0.143			0.064			0.689			0.685		
Satd. Flow (perm)	249	3349	1449	113	3307	0	1194	1604	0	1216	1572	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		2			55			53	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	59	1565	68	128	1490	21	112	44	68	24	42	63
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	1565	68	128	1511	0	112	112	0	24	105	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	78.1	78.1	78.1	16.0	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	60.1%	60.1%	60.1%	12.3%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	72.1	72.1	72.1	10.1	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	73.1	73.1	73.1	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.56	0.56	0.56	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.42	0.83	0.08	0.69	0.67		0.42	0.28		0.09	0.27	
Control Delay	15.5	12.1	0.4	32.7	7.2		49.0	24.0		41.2	23.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	15.5	12.1	0.4	32.7	7.2		49.0	24.0		41.2	23.7	
LOS	B	B	A	C	A		D	C		D	C	
Approach Delay		11.7			9.2			36.5			26.9	
Approach LOS		B			A			D			C	
Queue Length 50th (m)	2.8	41.8	0.3	7.5	103.7		22.8	10.9		4.5	9.9	
Queue Length 95th (m)	m4.8	53.0	m0.0	m12.3	m112.6		40.2	26.2		11.5	24.7	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	140	1883	850	197	2241		266	400		271	391	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.42	0.83	0.08	0.65	0.67		0.42	0.28		0.09	0.27	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 95												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.83												
Intersection Signal Delay: 12.6					Intersection LOS: B							
Intersection Capacity Utilization 93.0%					ICU Level of Service F							
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	548	851	256	148	697	299	343	643	136	304	688	599
Future Volume (vph)	548	851	256	148	697	299	343	643	136	304	688	599
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3189	3349	1473	1650	3349	1473	3251	3316	1454	3186	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			241			267			188			309
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	548	851	256	148	697	299	343	643	136	304	688	599
Shared Lane Traffic (%)												
Lane Group Flow (vph)	548	851	256	148	697	299	343	643	136	304	688	599
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	30.0	48.8	48.8	20.0	38.8	38.8	21.2	39.5	39.5	21.7	40.0	40.0
Total Split (%)	23.1%	37.5%	37.5%	15.4%	29.8%	29.8%	16.3%	30.4%	30.4%	16.7%	30.8%	30.8%
Maximum Green (s)	23.7	42.3	42.3	13.7	32.3	32.3	14.9	33.5	33.5	15.4	34.0	34.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	23.5	42.6	42.6	13.4	32.5	32.5	14.9	34.0	34.0	14.9	34.0	34.0
Actuated g/C Ratio	0.18	0.33	0.33	0.10	0.25	0.25	0.11	0.26	0.26	0.11	0.26	0.26
v/c Ratio	0.94	0.78	0.40	0.87	0.83	0.53	0.91	0.74	0.26	0.82	0.79	0.98
Control Delay	57.0	30.5	10.3	98.8	56.0	10.5	85.7	50.3	2.7	73.9	52.1	55.6
Queue Delay	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	57.0	30.5	10.3	98.8	56.0	10.5	85.7	50.3	2.7	73.9	52.1	55.6
LOS	E	C	B	F	E	B	F	D	A	E	D	E
Approach Delay		36.2			49.7			55.3			57.6	
Approach LOS		D			D			E			E	
Queue Length 50th (m)	58.3	105.3	22.8	34.9	82.6	5.8	41.9	73.9	0.0	36.4	79.7	80.1
Queue Length 95th (m)	m#90.6	127.5	m29.9	#68.9	#104.2	29.4	#66.9	94.0	4.5	#55.0	100.7	#151.6
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	592	1097	644	174	838	568	376	866	518	384	875	610
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.78	0.40	0.85	0.83	0.53	0.91	0.74	0.26	0.79	0.79	0.98

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 115

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 49.1

Intersection LOS: D

Intersection Capacity Utilization 91.2%

ICU Level of Service F

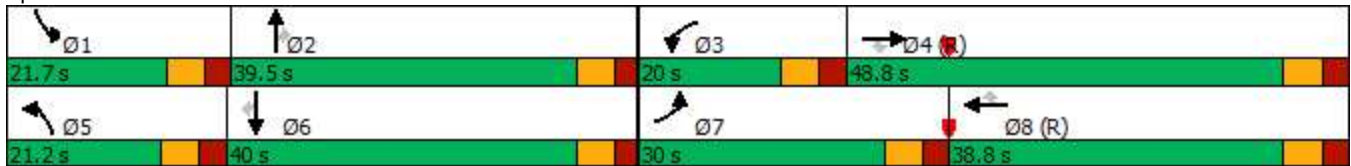
Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2030 Total Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	1549	165	216	1030	355	196	319	308	511	529	96
Future Volume (vph)	161	1549	165	216	1030	355	196	319	308	511	529	96
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor			0.97			0.97	0.99	0.98		0.98	1.00	
Frt			0.850			0.850		0.926			0.977	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3018	0	3281	3201	0
Flt Permitted	0.139			0.075			0.950			0.950		
Satd. Flow (perm)	240	3349	1473	132	3316	1445	3180	3018	0	3206	3201	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			355		138			15	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	161	1549	165	216	1030	355	196	319	308	511	529	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	161	1549	165	216	1030	355	196	627	0	511	625	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

2030 Total Traffic Conditions
Weekday PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 2

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	16.4	60.8	60.8	15.0	59.4	59.4	17.2	30.2		24.0	37.0	
Total Split (%)	12.6%	46.8%	46.8%	11.5%	45.7%	45.7%	13.2%	23.2%		18.5%	28.5%	
Maximum Green (s)	10.3	54.4	54.4	8.9	53.0	53.0	10.9	24.0		17.7	30.8	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	64.7	54.4	54.4	63.3	53.7	53.7	10.7	23.6		17.7	30.7	
Actuated g/C Ratio	0.50	0.42	0.42	0.49	0.41	0.41	0.08	0.18		0.14	0.24	
v/c Ratio	0.71	1.11	0.23	1.24	0.75	0.44	0.75	0.95		1.15	0.82	
Control Delay	34.7	94.5	3.1	173.0	32.2	6.8	75.9	65.5		138.3	55.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	34.7	94.5	3.1	173.0	32.2	6.8	75.9	65.5		138.3	55.6	
LOS	C	F	A	F	C	A	E	E		F	E	
Approach Delay		81.4			45.6			67.9			92.8	
Approach LOS		F			D			E			F	
Queue Length 50th (m)	18.9	~218.8	0.0	~50.1	103.3	15.5	23.6	62.0		~72.6	72.2	
Queue Length 95th (m)	#37.5	#258.0	9.1	#96.6	123.0	32.2	#37.9	#95.1		#104.2	92.6	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	231	1401	723	174	1369	805	269	669		446	769	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.70	1.11	0.23	1.24	0.75	0.44	0.73	0.94		1.15	0.81	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.24												
Intersection Signal Delay: 71.2						Intersection LOS: E						
Intersection Capacity Utilization 114.7%						ICU Level of Service H						
Analysis Period (min) 15												

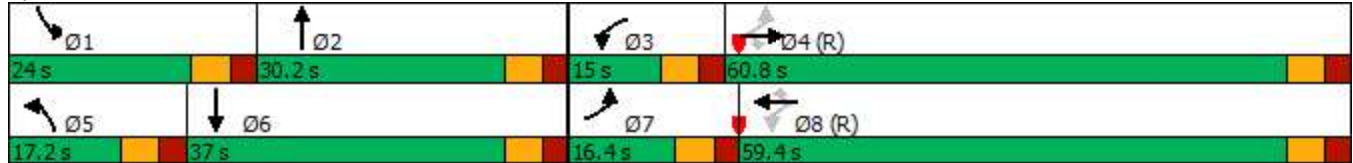
~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



2030 Total Traffic Conditions
Weekday PM Peak Hour

2: Trinity Crossing Mall Access & Innes Road

Page 4

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↗
Traffic Volume (vph)	1813	233	179	1218	384	249
Future Volume (vph)	1813	233	179	1218	384	249
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.049		0.950	
Satd. Flow (perm)	3316	1459	87	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		110				118
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1813	233	179	1218	384	249
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1813	233	179	1218	384	249
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	83.0	83.0	14.0	97.0	33.0	33.0
Total Split (%)	63.8%	63.8%	10.8%	74.6%	25.4%	25.4%
Maximum Green (s)	76.1	76.1	8.0	90.1	26.0	26.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	76.1	76.1	96.3	95.4	20.7	20.7
Actuated g/C Ratio	0.59	0.59	0.74	0.73	0.16	0.16
v/c Ratio	0.93	0.26	0.79	0.52	0.74	0.74
Control Delay	15.6	1.0	65.0	3.2	60.6	40.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	1.0	65.0	3.2	60.6	40.4
LOS	B	A	E	A	E	D
Approach Delay	14.0			11.1	52.7	
Approach LOS	B			B	D	
Queue Length 50th (m)	187.8	1.1	29.5	10.4	45.1	30.0
Queue Length 95th (m)	m148.7	m0.9	m#78.7	35.0	57.7	55.1
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1941	899	228	2364	656	392
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.26	0.79	0.52	0.59	0.64
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 115						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.93						
Intersection Signal Delay: 19.0				Intersection LOS: B		
Intersection Capacity Utilization 92.2%				ICU Level of Service F		
Analysis Period (min) 15						

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1996	66	0	1397	0	138
Future Volume (vph)	1996	66	0	1397	0	138
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1996	66	0	1397	0	138
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1996	66	0	1397	0	138
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	74.2%			ICU Level of Service D		
Analysis Period (min)	15					

2030 Total Traffic Conditions
Weekday PM Peak Hour

4: Lanthier Drive/Prestwick Drive & Innes Road

Page 8

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	1942	121	113	1156	45	179	60	42	29	56	62
Future Volume (vph)	71	1942	121	113	1156	45	179	60	42	29	56	62
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.994			0.938			0.921	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3291	0	1658	1660	0	1691	1593	0
Flt Permitted	0.219			0.049			0.677			0.691		
Satd. Flow (perm)	382	3349	1449	86	3291	0	1173	1660	0	1227	1593	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		7			25			39	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	71	1942	121	113	1156	45	179	60	42	29	56	62
Shared Lane Traffic (%)												
Lane Group Flow (vph)	71	1942	121	113	1201	0	179	102	0	29	118	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	82.5	82.5	82.5	11.6	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	63.5%	63.5%	63.5%	8.9%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	76.5	76.5	76.5	5.7	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	76.5	76.5	76.5	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.59	0.59	0.59	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.32	0.99	0.14	0.89	0.54		0.69	0.26		0.11	0.31	
Control Delay	13.2	26.3	3.8	67.8	10.3		61.1	33.3		41.6	30.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	13.2	26.3	3.8	67.8	10.3		61.1	33.3		41.6	30.3	
LOS	B	C	A	E	B		E	C		D	C	
Approach Delay		24.6			15.2			51.0			32.6	
Approach LOS		C			B			D			C	
Queue Length 50th (m)	4.4	65.9	1.4	9.5	97.6		39.0	14.9		5.5	15.4	
Queue Length 95th (m)	m6.3	m#279.1	m3.0	m#30.0	105.8		#65.0	29.5		13.3	31.4	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	224	1970	886	127	2232		261	389		273	385	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.32	0.99	0.14	0.89	0.54		0.69	0.26		0.11	0.31	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 125												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.99												
Intersection Signal Delay: 23.6					Intersection LOS: C							
Intersection Capacity Utilization 103.1%					ICU Level of Service G							
Analysis Period (min) 15												

- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	537	1220	255	186	634	287	198	669	237	418	797	482
Future Volume (vph)	537	1220	255	186	634	287	198	669	237	418	797	482
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3183	3349	1473	1653	3349	1473	3255	3316	1454	3189	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			184			237			241			356
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	537	1220	255	186	634	287	198	669	237	418	797	482
Shared Lane Traffic (%)												
Lane Group Flow (vph)	537	1220	255	186	634	287	198	669	237	418	797	482
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	31.6	52.0	52.0	21.0	41.4	41.4	15.2	34.0	34.0	23.0	41.8	41.8
Total Split (%)	24.3%	40.0%	40.0%	16.2%	31.8%	31.8%	11.7%	26.2%	26.2%	17.7%	32.2%	32.2%
Maximum Green (s)	25.3	45.5	45.5	14.7	34.9	34.9	8.9	28.0	28.0	16.7	35.8	35.8
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	24.3	45.5	45.5	14.8	36.0	36.0	8.9	27.9	27.9	16.7	35.7	35.7
Actuated g/C Ratio	0.19	0.35	0.35	0.11	0.28	0.28	0.07	0.21	0.21	0.13	0.27	0.27
v/c Ratio	0.88	1.04	0.40	0.98	0.68	0.50	0.88	0.94	0.47	1.00	0.87	0.73
Control Delay	52.1	55.4	9.6	119.3	46.7	11.5	96.1	72.4	8.2	100.9	56.1	18.4
Queue Delay	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	52.1	55.4	9.6	119.3	46.7	11.5	96.1	72.4	8.2	100.9	56.1	18.4
LOS	D	E	A	F	D	B	F	E	A	F	E	B
Approach Delay		48.7			49.8			62.9			56.4	
Approach LOS		D			D			E			E	
Queue Length 50th (m)	57.8	~167.6	21.6	44.5	71.3	9.0	24.3	82.3	0.0	~51.7	94.4	26.1
Queue Length 95th (m)	m60.1	m#172.9	m22.4	#88.4	90.6	32.6	#44.3	#115.3	18.7	#82.7	#122.7	65.9
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	632	1172	635	189	928	579	224	714	502	417	922	660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.85	1.04	0.40	0.98	0.68	0.50	0.88	0.94	0.47	1.00	0.86	0.73

Intersection Summary

Area Type: Other

Cycle Length: 130

Actuated Cycle Length: 130

Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green

Natural Cycle: 135

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.04

Intersection Signal Delay: 53.8

Intersection LOS: D

Intersection Capacity Utilization 101.4%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

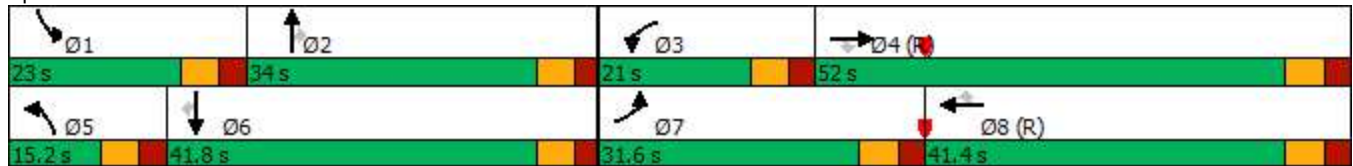
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



2030 Total Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 1

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	175	1450	197	335	1479	371	238	307	334	395	329	132
Future Volume (vph)	175	1450	197	335	1479	371	238	307	334	395	329	132
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	110.0		110.0	140.0		140.0	100.0		0.0	50.0		0.0
Storage Lanes	1		1	1		1	2		0	2		0
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	0.95	0.95	0.97	0.95	0.95
Ped Bike Factor			0.97			0.97	0.99	0.98		0.98	0.99	
Frt			0.850			0.850		0.922			0.957	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1642	3349	1513	1674	3316	1483	3216	3004	0	3281	3104	0
Flt Permitted	0.079			0.071			0.950			0.950		
Satd. Flow (perm)	137	3349	1473	125	3316	1445	3170	3004	0	3208	3104	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			195			368		165			41	
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		1473.5			627.9			806.9			527.0	
Travel Time (s)		88.4			37.7			48.4			31.6	
Confl. Peds. (#/hr)	10		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	1%	2%	2%	2%	3%	0%	0%	2%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	175	1450	197	335	1479	371	238	307	334	395	329	132
Shared Lane Traffic (%)												
Lane Group Flow (vph)	175	1450	197	335	1479	371	238	641	0	395	461	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8						
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												

2030 Total Traffic Conditions
Weekend PM Peak Hour

1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road

Page 2

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0		5.0	10.0	
Minimum Split (s)	11.1	33.4	33.4	11.1	33.4	33.4	11.3	30.2		11.3	30.2	
Total Split (s)	15.6	56.8	56.8	23.0	64.2	64.2	18.8	30.2		20.0	31.4	
Total Split (%)	12.0%	43.7%	43.7%	17.7%	49.4%	49.4%	14.5%	23.2%		15.4%	24.2%	
Maximum Green (s)	9.5	50.4	50.4	16.9	57.8	57.8	12.5	24.0		13.7	25.2	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7		3.7	3.7	
All-Red Time (s)	2.4	2.7	2.7	2.4	2.7	2.7	2.6	2.5		2.6	2.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.1	6.4	6.4	6.1	6.4	6.4	6.3	6.2		6.3	6.2	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Recall Mode	Min	C-Max	C-Max	Min	C-Max	C-Max	Min	Min		Min	Min	
Walk Time (s)		7.0	7.0		7.0	7.0		7.0			7.0	
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		17.0			17.0	
Pedestrian Calls (#/hr)		10	10		10	10		10			10	
Act Effct Green (s)	60.7	50.4	50.4	74.2	57.8	57.8	12.2	23.5		13.7	25.0	
Actuated g/C Ratio	0.47	0.39	0.39	0.57	0.44	0.44	0.09	0.18		0.11	0.19	
v/c Ratio	0.97	1.12	0.29	1.20	1.00	0.44	0.79	0.95		1.14	0.73	
Control Delay	95.1	101.1	4.7	145.9	51.4	4.0	76.3	62.6		144.7	52.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	95.1	101.1	4.7	145.9	51.4	4.0	76.3	62.6		144.7	52.6	
LOS	F	F	A	F	D	A	E	E		F	D	
Approach Delay		90.1			57.9			66.3			95.1	
Approach LOS		F			E			E			F	
Queue Length 50th (m)	~29.0	~206.6	0.3	~83.5	~196.5	5.1	28.7	60.6		~56.1	49.5	
Queue Length 95th (m)	#72.6	#245.8	14.1 m	#126.0 m	#230.5	m12.2	#45.5	#93.2		#85.2	67.0	
Internal Link Dist (m)		1449.5			603.9			782.9			503.0	
Turn Bay Length (m)	110.0		110.0	140.0		140.0	100.0			50.0		
Base Capacity (vph)	180	1298	690	279	1474	846	309	689		345	634	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.97	1.12	0.29	1.20	1.00	0.44	0.77	0.93		1.14	0.73	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green												
Natural Cycle: 140												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.20												
Intersection Signal Delay: 74.9												
Intersection LOS: E												
Intersection Capacity Utilization 115.9%												
ICU Level of Service H												
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

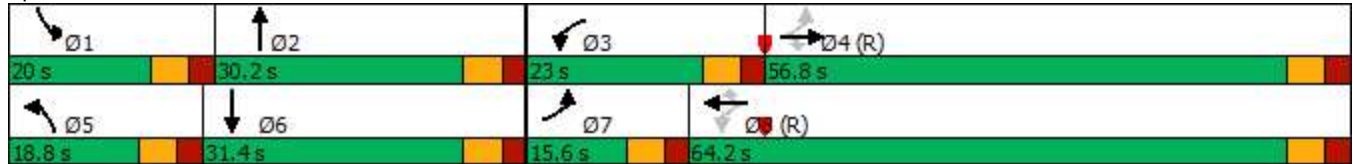
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Mer-Bleue Road/Jeanne-d'Arc Blvd & Innes Road



	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↘	↑↑	↘↘	↘
Traffic Volume (vph)	1404	293	285	1531	654	338
Future Volume (vph)	1404	293	285	1531	654	338
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		40.0	105.0		40.0	0.0
Storage Lanes		1	1		2	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	0.97	1.00
Ped Bike Factor		0.97			0.98	0.99
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3316	1498	1691	3221	3281	1513
Flt Permitted			0.066		0.950	
Satd. Flow (perm)	3316	1459	117	3221	3215	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		141				281
Link Speed (k/h)	60			60	50	
Link Distance (m)	627.9			254.1	263.7	
Travel Time (s)	37.7			15.2	19.0	
Confl. Peds. (#/hr)		3	3		8	2
Confl. Bikes (#/hr)						
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	5%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1404	293	285	1531	654	338
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1404	293	285	1531	654	338
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	7.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Number of Detectors	2	1	1	2	1	1
Detector Template	Thru	Right	Left	Thru	Left	Right
Leading Detector (m)	30.5	6.1	6.1	30.5	6.1	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2	6			8
Detector Phase	2	2	1	6	8	8
Switch Phase						

	→	↘	↙	←	↖	↗
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Minimum Initial (s)	10.0	10.0	5.0	10.0	5.0	5.0
Minimum Split (s)	39.9	39.9	11.0	16.9	33.0	33.0
Total Split (s)	69.0	69.0	26.0	95.0	35.0	35.0
Total Split (%)	53.1%	53.1%	20.0%	73.1%	26.9%	26.9%
Maximum Green (s)	62.1	62.1	20.0	88.1	28.0	28.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.3	3.3
All-Red Time (s)	3.2	3.2	2.3	3.2	3.7	3.7
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.9	6.9	6.0	6.9	7.0	7.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	C-Max	C-Max	None	C-Max	None	None
Walk Time (s)	7.0	7.0			7.0	7.0
Flash Dont Walk (s)	26.0	26.0			19.0	19.0
Pedestrian Calls (#/hr)	10	10			10	10
Act Effct Green (s)	63.4	63.4	89.4	88.5	27.6	27.6
Actuated g/C Ratio	0.49	0.49	0.69	0.68	0.21	0.21
v/c Ratio	0.87	0.37	0.91	0.70	0.94	0.63
Control Delay	15.1	1.5	73.2	9.7	72.6	14.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.1	1.5	73.2	9.7	72.6	14.9
LOS	B	A	E	A	E	B
Approach Delay	12.7			19.7	52.9	
Approach LOS	B			B	D	
Queue Length 50th (m)	120.5	2.2	58.8	58.3	78.5	11.1
Queue Length 95th (m)	m90.0	m1.4	#97.4	85.6	#109.8	39.7
Internal Link Dist (m)	603.9			230.1	239.7	
Turn Bay Length (m)		40.0	105.0		40.0	
Base Capacity (vph)	1616	783	322	2192	706	541
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.87	0.37	0.89	0.70	0.93	0.62
Intersection Summary						
Area Type:	Other					
Cycle Length: 130						
Actuated Cycle Length: 130						
Offset: 44 (34%), Referenced to phase 2:EBT and 6:WBTL, Start of Green						
Natural Cycle: 105						
Control Type: Actuated-Coordinated						
Maximum v/c Ratio: 0.94						
Intersection Signal Delay: 24.4				Intersection LOS: C		
Intersection Capacity Utilization 94.0%				ICU Level of Service F		
Analysis Period (min) 15						

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Trinity Crossing Mall Access & Innes Road



						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↗		↑↑		↗
Traffic Volume (vph)	1656	86	0	1815	0	185
Future Volume (vph)	1656	86	0	1815	0	185
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)	0%			0%	0%	
Storage Length (m)		50.0	0.0		0.0	0.0
Storage Lanes		1	0		0	1
Taper Length (m)			7.6		7.6	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Ped Bike Factor						
Frt		0.850				0.865
Flt Protected						
Satd. Flow (prot)	3316	1513	0	3316	0	1540
Flt Permitted						
Satd. Flow (perm)	3316	1513	0	3316	0	1540
Link Speed (k/h)	60			60	30	
Link Distance (m)	254.1			115.0	306.1	
Travel Time (s)	15.2			6.9	36.7	
Confl. Peds. (#/hr)		11	1		2	1
Confl. Bikes (#/hr)		6				1
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	0%	0%	2%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Adj. Flow (vph)	1656	86	0	1815	0	185
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1656	86	0	1815	0	185
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.5			3.5	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.9			4.9	4.9	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		14	24		24	14
Sign Control	Free			Free	Stop	
Intersection Summary						
Area Type:	Other					
Control Type:	Unsignalized					
Intersection Capacity Utilization	67.2%			ICU Level of Service C		
Analysis Period (min)	15					

2030 Total Traffic Conditions
Weekend PM Peak Hour

4: Lanthier Drive/Prestwick Drive & Innes Road

Page 8

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	1703	74	136	1624	23	122	48	73	27	45	69
Future Volume (vph)	64	1703	74	136	1624	23	122	48	73	27	45	69
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	55.0		55.0	100.0		0.0	55.0		0.0	35.0		0.0
Storage Lanes	1		1	1		0	1		0	1		0
Taper Length (m)	7.6			7.6			7.6			7.6		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		0.97		1.00		0.99	0.99		1.00	0.99	
Frt			0.850		0.998			0.910			0.909	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1658	3349	1498	1674	3307	0	1658	1605	0	1691	1570	0
Flt Permitted	0.113			0.051			0.684			0.670		
Satd. Flow (perm)	197	3349	1449	90	3307	0	1185	1605	0	1190	1570	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			82		2			54			43	
Link Speed (k/h)		60			60			40			40	
Link Distance (m)		115.0			450.5			296.9			122.5	
Travel Time (s)		6.9			27.0			26.7			11.0	
Confl. Peds. (#/hr)	4		6	6		4	6		2	2		4
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	1%	1%	2%	3%	2%	0%	0%	0%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	64	1703	74	136	1624	23	122	48	73	27	45	69
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	1703	74	136	1647	0	122	121	0	27	114	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			3.5			3.5	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.9			4.9			4.9			4.9	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2		1	2		1	2	
Detector Template	Left	Thru	Right	Left	Thru		Left	Thru		Left	Thru	
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5		6.1	30.5		6.1	30.5	
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	pm+pt	NA		Perm	NA		Perm	NA	
Protected Phases		2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Detector Phase	2	2	2	1	6		8	8		4	4	
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	10.0	10.0	10.0	5.0	10.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	36.0	36.0	36.0	10.9	36.0		35.9	35.9		35.9	35.9	
Total Split (s)	78.3	78.3	78.3	15.8	94.1		35.9	35.9		35.9	35.9	
Total Split (%)	60.2%	60.2%	60.2%	12.2%	72.4%		27.6%	27.6%		27.6%	27.6%	
Maximum Green (s)	72.3	72.3	72.3	9.9	88.1		29.0	29.0		29.0	29.0	
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.3	2.3	2.3	2.2	2.3		3.9	3.9		3.9	3.9	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0	6.0	5.9	6.0		6.9	6.9		6.9	6.9	
Lead/Lag	Lag	Lag	Lag	Lead								
Lead-Lag Optimize?	Yes	Yes	Yes	Yes								
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Recall Mode	C-Max	C-Max	C-Max	None	C-Max		Max	Max		Max	Max	
Walk Time (s)	10.0	10.0	10.0		10.0		2.0	2.0		2.0	2.0	
Flash Dont Walk (s)	20.0	20.0	20.0		20.0		27.0	27.0		27.0	27.0	
Pedestrian Calls (#/hr)	10	10	10		10		10	10		10	10	
Act Effct Green (s)	72.8	72.8	72.8	88.2	88.1		29.0	29.0		29.0	29.0	
Actuated g/C Ratio	0.56	0.56	0.56	0.68	0.68		0.22	0.22		0.22	0.22	
v/c Ratio	0.58	0.91	0.09	0.78	0.73		0.46	0.30		0.10	0.30	
Control Delay	25.6	16.2	0.8	42.1	7.8		50.4	25.7		41.6	28.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	25.6	16.2	0.8	42.1	7.8		50.4	25.7		41.6	28.3	
LOS	C	B	A	D	A		D	C		D	C	
Approach Delay		15.9			10.4			38.1			30.8	
Approach LOS		B			B			D			C	
Queue Length 50th (m)	3.4	50.5	0.1	14.4	115.3		25.1	12.9		5.1	13.7	
Queue Length 95th (m)	m5.3	64.3	m0.2	m15.9	m117.2		43.4	28.7		12.7	29.2	
Internal Link Dist (m)		91.0			426.5			272.9			98.5	
Turn Bay Length (m)	55.0		55.0	100.0			55.0			35.0		
Base Capacity (vph)	110	1875	847	181	2241		264	399		265	383	
Starvation Cap Reductn	0	0	0	0	0		0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0		0	0		0	0	
Storage Cap Reductn	0	0	0	0	0		0	0		0	0	
Reduced v/c Ratio	0.58	0.91	0.09	0.75	0.73		0.46	0.30		0.10	0.30	
Intersection Summary												
Area Type: Other												
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 49 (38%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green												
Natural Cycle: 105												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 0.91												
Intersection Signal Delay: 15.3												
Intersection LOS: B												
Intersection Capacity Utilization 97.5%												
ICU Level of Service F												
Analysis Period (min) 15												

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Lanthier Drive/Prestwick Drive & Innes Road



2030 Total Traffic Conditions
Weekend PM Peak Hour

5: Tenth Line Road & Innes Road

Page 11

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	596	926	279	161	759	326	373	701	149	332	750	651
Future Volume (vph)	596	926	279	161	759	326	373	701	149	332	750	651
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800	1800
Lane Width (m)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Grade (%)		0%			0%			0%			0%	
Storage Length (m)	65.0		65.0	75.0		0.0	65.0		65.0	85.0		150.0
Storage Lanes	2		1	1		1	2		1	2		1
Taper Length (m)	2.5			2.5			2.5			2.5		
Lane Util. Factor	0.97	0.95	1.00	1.00	0.95	1.00	0.97	0.95	1.00	0.97	0.95	1.00
Ped Bike Factor	0.98		0.97	1.00		0.97	0.99		0.96	0.98		0.97
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	3248	3349	1513	1658	3349	1513	3281	3316	1513	3248	3349	1498
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	3194	3349	1473	1651	3349	1473	3254	3316	1454	3191	3349	1460
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			244			267			188			307
Link Speed (k/h)		60			60			60			60	
Link Distance (m)		450.5			816.0			763.6			639.5	
Travel Time (s)		27.0			49.0			45.8			38.4	
Confl. Peds. (#/hr)	20		10	10		10	10		20	20		10
Confl. Bikes (#/hr)												
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	2%	1%	0%	0%	2%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Adj. Flow (vph)	596	926	279	161	759	326	373	701	149	332	750	651
Shared Lane Traffic (%)												
Lane Group Flow (vph)	596	926	279	161	759	326	373	701	149	332	750	651
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		7.0			7.0			7.0			7.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		1.6			1.6			1.6			1.6	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	24		14	24		14	24		14	24		14
Number of Detectors	1	2	1	1	2	1	1	2	1	1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Leading Detector (m)	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1	6.1	30.5	6.1
Trailing Detector (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Turn Type	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm	Prot	NA	Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Detector Phase	7	4	4	3	8	8	5	2	2	1	6	6
Switch Phase												

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Minimum Initial (s)	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0	5.0	10.0	10.0
Minimum Split (s)	11.3	33.5	33.5	11.3	33.5	33.5	11.3	34.0	34.0	11.3	34.0	34.0
Total Split (s)	30.4	49.6	49.6	20.0	39.2	39.2	21.4	37.6	37.6	22.8	39.0	39.0
Total Split (%)	23.4%	38.2%	38.2%	15.4%	30.2%	30.2%	16.5%	28.9%	28.9%	17.5%	30.0%	30.0%
Maximum Green (s)	24.1	43.1	43.1	13.7	32.7	32.7	15.1	31.6	31.6	16.5	33.0	33.0
Yellow Time (s)	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
All-Red Time (s)	2.6	2.8	2.8	2.6	2.8	2.8	2.6	2.3	2.3	2.6	2.3	2.3
Lost Time Adjust (s)	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 Lost Time (s)	6.3	6.5	6.5	6.3	6.5	6.5	6.3	6.0	6.0	6.3	6.0	6.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Minimum Gap (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Time Before Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Time To Reduce (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None	None	None	None	None
Walk Time (s)		7.0	7.0		7.0	7.0		7.0	7.0		7.0	7.0
Flash Dont Walk (s)		20.0	20.0		20.0	20.0		21.0	21.0		21.0	21.0
Pedestrian Calls (#/hr)		10	10		10	10		10	10		10	10
Act Effct Green (s)	24.1	43.1	43.1	13.7	32.7	32.7	15.1	32.1	32.1	16.0	33.0	33.0
Actuated g/C Ratio	0.19	0.33	0.33	0.11	0.25	0.25	0.12	0.25	0.25	0.12	0.25	0.25
v/c Ratio	0.99	0.83	0.43	0.93	0.90	0.57	0.98	0.86	0.30	0.83	0.88	1.09
Control Delay	65.2	31.0	10.3	108.5	62.0	13.1	98.2	58.4	3.7	73.6	59.7	87.0
Queue Delay	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	65.2	31.0	10.3	108.5	62.0	13.1	98.2	58.4	3.7	73.6	59.7	87.0
LOS	E	C	B	F	E	B	F	E	A	E	E	F
Approach Delay		39.1			55.3			63.9			72.6	
Approach LOS		D			E			E			E	
Queue Length 50th (m)	67.1	119.2	25.0	38.3	91.7	10.9	45.9	84.0	0.0	39.8	90.0	~114.6
Queue Length 95th (m)	m#89.0	m131.2	m28.4	#76.8	#122.7	37.6	#74.6	#111.9	7.8	#59.3	#119.4	#181.3
Internal Link Dist (m)		426.5			792.0			739.6			615.5	
Turn Bay Length (m)	65.0		65.0	75.0			65.0		65.0	85.0		150.0
Base Capacity (vph)	602	1110	651	174	842	570	381	818	500	412	850	599
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.83	0.43	0.93	0.90	0.57	0.98	0.86	0.30	0.81	0.88	1.09
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 130												
Offset: 0 (0%), Referenced to phase 4:EBT and 8:WBT, Start of Green												
Natural Cycle: 125												
Control Type: Actuated-Coordinated												
Maximum v/c Ratio: 1.09												
Intersection Signal Delay: 57.2				Intersection LOS: E								
Intersection Capacity Utilization 94.9%				ICU Level of Service F								
Analysis Period (min) 15												

~ Volume exceeds capacity, queue is theoretically infinite.

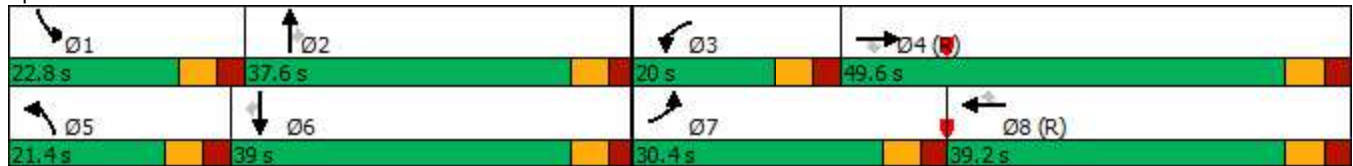
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Tenth Line Road & Innes Road



Appendix E

City of Ottawa Collision Data

Intersection	All_Motoriz	Percent_Tr	Pedestrian	Bicycles_N
LAFONTAINE AVE @ MCARTHUR AVE	15299	0.0294	1083	48
LAPERRIERE AVE @ LARKIN ST	8972	0.0477	141	14
LARMOURS RD @ SARSFIELD RD	346	0.128	1	0
LARRY ROBINSON RD @ MARVELVILLE RD	1466	0.1056	0	2
LASER ST @ GURDWARA RD	4379	0.0416	28	0
LAURIER AVE @ 135M E OF ELGIN ST	23149	0.0329	6456	2276
LAURIER AVE @ 89 E OF WALLER ST	9724	0.0886	4282	55
LAURIER AVE @ NELSON ST	9436	0.0297	5015	40
LAURIER AVE @ NICHOLAS ST	43880	0.1306	3527	1259
LAURIER AVE @ NICHOLAS ST	42432	0.1237	2250	49
LAURIER AVE @ PERCY ST	3881	0.0202	1679	1251
LAURIER AVE @ QUEEN ELIZABETH DRWY/LAURIER AVE	25163	0.0352	36	773
LAURIER AVE @ RANGE RD	9804	0.0274	414	22
LAURIER AVE @ SWEETLAND AVE	8354	0.0286	1535	25
LAVERENDRYE DR @ QUINCY AVE	1019	0.082	59	95
LAVERENDRYE DR @ QUINCY AVE	1137	0.0965	89	39
LAWSON AVE @ FRANCES ST	1404	0.0402	156	7
LEBRETON ST @ ORANGEVILLE ST	2879	0.0152	49	42
LEEDS AVE @ SHEFFIELD RD	10802	0.1943	30	7
LEGGET DR @ TERRY FOX DR	13578	0.0213	140	4
LEITRIM RD @ ALBION RD	29313	0.0534	53	26
LIMEBANK RD @ SPRATT RD	23615	0.0374	231	2
LEITRIM RD S @ RAMSAYVILLE RD	9549	0.0315	0	3
LENESTER AVE @ MAITLAND AVE	24226	0.0175	33	21
LIMEBANK RD/RIVERSIDE DR @ RIVER RD	30832	0.0204	2	4
LISGAR ST @ METCALFE ST	14491	0.0258	5255	31
LLOYDALEX CRES @ ECHO POND WAY	742	0.0574	10	0
LOGAN FARM DR @ OSGOOD MAIN ST	3538	0.0352	33	0
LOLA ST @ KING GEORGE ST	4221	0.0245	218	41
LOLA ST @ QUEEN MARY ST	7546	0.0316	443	35
LONG ISLAND RD @ LENA AVE/CINDY HILL CRES W	2175	0.0309	26	12
LORRY GREENBERG DR @ 450 W OF CONROY RD/ROBERT	3117	0.066	156	2
LORRY GREENBERG DR @ 45M S OF MARGRAVE AVE	5288	0.039	220	31
LUNDY'S LANE @ PERTH ST	15158	0.0589	23	1
LYNCH ST @ BRADDISH ST	30	0	0	1
LYNHAR RD @ EATON ST	1403	0.0386	42	7
LYON ST @ MACLAREN ST	10640	0.0149	1001	117
LYON ST @ NEPEAN ST	13299	0.0167	1820	133
LYON ST @ SLATER ST	22020	0.0925	5740	46
LYON ST @ SLATER ST	29277	0.0332	7727	166
LYON ST @ WELLINGTON ST	25670	0.0678	3011	730
LYON ST @ WELLINGTON ST	27918	0.0697	3678	981
LYON ST @ WELLINGTON ST	29700	0.0659	3442	933

LYON ST @ WELLINGTON ST	26595	0.0688	2993	652
MACFARLANE AVE @ SHERWOOD DR	2957	0.0135	303	53
MACHARDY RD @ GALETTA SIDE RD	2366	0.0464	0	0
MACKAY ST @ SUSSEX DR	18741	0.0048	70	62
MACKENZIE AVE @ RIDEAU ST	31745	0.0976	3840	54
CLEROUX CRES W @ INNES RD	8447	0.0423	141	1
MACKENZIE KING BR/WALLER ST @ NICHOLAS ST/WALL	22575	0.2348	8895	42
MACLAREN ST @ O'CONNOR ST	14068	0.0268	2142	166
MADELEINE MEILLEUR PRIV @ VANIER PKWY	31586	0.0151	125	7
MAGLADRY RD @ ROCKDALE RD	1382	0.0545	0	0
MALAKOFF RD @ PIERCE RD	992	0.1518	0	0
MALAKOFF RD @ POLLOCK RD	732	0.1054	0	0
MALCOLM PL @ NORICE ST	987	0.0349	37	26
MANOTICK MAIN ST/RIDEAU VALLEY DR E @ CENTURY	5939	0.0276	7	9
MANOTICK STATION RD @ MITCH OWENS RD	11592	0.0756	0	0
MARCH RD @ DIAMONDDVIEW RD	6579	0.0498	0	0
MARCH RD @ HUNTMAR DR	7020	0.0488	0	0
MARCH VALLEY RD @ RIDDELL DR	2239	0.0381	0	0
MARCH VALLEY RD @ TERRY FOX DR	10550	0.0243	175	1
MARGUERITE AVE @ MCARTHUR AVE	10849	0.0311	907	38
MARINA DR @ RIDEAU VALLEY DR	2577	0.035	3	0
MARIONVILLE RD @ YORKS CORNERS RD	786	0.1366	0	0
MARKETPLACE AVE @ RIOCAN AVE	10551	0.0414	512	2
MAXIME ST @ CYRVILLE RD	13203	0.0301	47	1
MAY ST @ MCARTHUR AVE	12969	0.0393	283	25
MCARTHUR AVE @ EGLISE, RUE DE L/MOORVALE ST	14087	0.0384	626	34
MCARTHUR AVE @ IRWIN MILLER ST	12621	0.0349	519	22
MCARTHUR AVE @ NORTH RIVER RD	11365	0.0349	994	95
MCARTHUR AVE @ OLMSTEAD ST	14578	0.0352	429	50
MCARTHUR AVE @ VANIER PKWY	53453	0.0203	1269	35
MCCARTHY RD @ PLANTE DR S	9989	0.0358	49	5
MCCARTHY RD @ WALKLEY RD	19723	0.0243	13	2
MCCOOEY LANE @ 35M N OF CARP RD	2991	0.0236	17	19
MCCOOEY LANE @ NEIL AVE	266	0.0245	20	7
MCCORDICK RD @ MCMULLEN RD	1022	0.0545	0	0
MCCORDICK RD @ ROGER STEVENS DR	4304	0.0621	0	0
MCKENNA CASEY DR @ STRANDHERD DR	29435	0.0591	3	36
MCKENNA RD @ ROGER STEVENS DR	2869	0.0571	0	0
MCLEOD ST @ QUEEN ELIZABETH DRWY	10455	0.0118	23	4
MEADOWBROOK RD @ 170 W OF TELESAT CRT @	6584	0.0224	238	0
MEADOWGLEN DR @ WINDFLOWER WAY	2909	0.0439	98	43
MEADOWLANDS DR @ VALMARIE AVE	6035	0.0378	75	11
MEADOWLANDS DR @ WITHROW AVE	16106	0.0271	28	23
MER BLEUE RD @ 210 S OF INNES RD	19733	0.0239	80	0

MER BLEUE RD @ DECOEUR DR	7586	0.0374	19	10
MERIVALE RD @ ANNA AVE/LAPERRIERE AVE	16140	0.0232	241	15
MERIVALE RD @ BASIL MACDONALD WAY/MERIVALE MAL	39634	0.0268	329	7
MERIVALE RD @ BENTLEY AVE/CAMELOT DR	33486	0.0525	115	7
MERIVALE RD @ MACFARLANE RD	19941	0.0417	17	1
MERIVALE RD @ MORISSET AVE	29315	0.0234	250	32
MERIVALE RD @ PINEGLEN CRES	15616	0.0362	31	44
MERIVALE RD @ VISCOUNT AVE	3816	0.0262	98	2
MERRIMAN AVE @ SANDRIDGE RD	1717	0.1135	26	19
METCALFE ST @ NEPEAN ST	11558	0.0353	5712	207
METCALFE ST @ NEPEAN ST	11505	0.0377	5395	200
METCALFE ST @ NEPEAN ST	13138	0.0283	5626	29
METCALFE ST @ NEPEAN ST	10423	0.041	4818	248
METCALFE ST @ NEPEAN ST	11366	0.0368	6100	198
METCALFE ST @ NEPEAN ST	12378	0.0331	7151	106
METCALFE ST @ QUEEN ST	14172	0.1004	12082	117
CLYDE AVE @ 90M N OF BASSELINE RD (PRIVATE ACCESS)	30453	0.0122	337	44
CLYDE AVE @ DOHENY ST	11400	0.0589	109	4
CLYDE AVE @ LAPERRIERE AVE	13900	0.0574	128	12
COBBLE HILL DR @ HELENE-CAMPBELL RD	7072	0.0227	73	0
CODD'S RD @ MIKINAK RD	1503	0.1276	91	7
COLDREY AVE @ LAPERRIERE AVE	9767	0.0395	53	23
COLE AVE @ DOVERCOURT AVE	4206	0.0386	522	172
COLOMBINE DRWY @ GOLDENROD DRWY	5356	0.0431	598	38
COLONEL BY DR @ COLONEL BY DR SB ON RAMP 43	10396	0.0039	17	4
COLONEL BY DR @ ECHO DR S	12990	0.0042	20	6
COLONEL BY DR @ HAWTHORNE AVE/PRETORIA BRIDGE	25398	0.0168	1742	590
COLONIAL RD @ FRANK KENNY RD	9880	0.0914	0	30
COLONIAL RD @ LAFLEUR RD	3491	0.1089	1	1
COLONIAL RD @ ROCKDALE RD	5640	0.1462	0	2
COLONIAL RD @ SARSFIELD RD	4251	0.1056	31	7
COMPASS ST @ SHINLEAF CRES/YELLOW BIRCH ST	978	0.041	56	0
CONCORD ST @ GREENFIELD AVE	10649	0.0084	308	188
CONCORD ST @ GREENFIELD AVE	11762	0.0165	473	158
CONLEY RD @ FRANKTOWN RD	5595	0.0545	0	1
CONNERY AVE @ PLEASANT PARK RD	6557	0.0282	18	36
CONOVER ST @ CRAIG HENRY DR	5224	0.0468	107	1
CONROY RD @ DAVIDSON RD N	13054	0.0476	1	0
CONROY RD @ DAVIDSON RD S	13451	0.0472	1	1
CONROY RD @ LORRY GREENBERG DR	22246	0.0369	226	26
CONROY RD @ QUEENSDALE AVE	12919	0.0468	0	0
CONROY RD @ THURSTON DR	27804	0.028	118	83
CONSTANCE LAKE RD/MURPHY SIDE RD @ DUNROBIN RD	6272	0.04	5	0
CONSUL AVE @ MORRISON DR	3029	0.0422	163	88

CONSUL AVE @ MORRISON DR	3094	0.0429	90	9
COOPER ST @ BANK ST	10030	0.0624	8966	393
COOPER ST @ KENT ST	15989	0.0259	2302	29
COPE DR @ TERRY FOX	19678	0.0501	32	28
CORKERY RD @ OLD ALMONTE RD	803	0.1327	10	0
CORTLEIGH DR @ WOODROFFE AVE	799	0.0348	88	29
COURTWOOD CRES E @ WOODWARD DR	11044	0.0372	288	108
COWELL RD @ MALAKOFF RD	613	0.1845	1	0
CRAMER DR @ MCCLELLAN RD W	1478	0.0754	85	1
CRESTHAVEN DR @ WATERBRIDGE DR	4116	0.0451	290	0
CRESTWAY DR @ LEIKIN DR	9900	0.0316	201	1
CRICHTON ST @ ELECTRIC ST	5679	0.0315	452	84
CROSSFIELD AVE @ WAVELL AVE	251	0.0435	46	2
DALMENY RD @ NIXON DR	4753	0.0642	1	0
DALMENY RD @ RIVER RD	5312	0.0521	0	0
DALY AVE @ KING EDWARD AVE	18094	0.0217	1328	21
DANBURY WAY @ PRINCE OF WALES DR	3835	0.0436	0	2
DANIEL MCCANN ST @ LEBRETON ST	2695	0.0149	183	42
DATA CENTRE RD @ HERON RD	46321	0.0436	39	22
DATA CENTRE RD @ RIVERSIDE DR	37512	0.0241	85	49
DAVIDSON RD @ HAWTHORNE RD	17484	0.1127	0	1
DEAKIN ST @ PRINCE OF WALES DR	36400	0.0232	14	55
DES EPINETTES AVE @ JEANNE D'ARC BLVD	24656	0.0321	186	3
DES EPINETTES AVE @ PRESTWICK DR	8986	0.0318	216	4
DES PERES BLANCS AVE @ MARIER AVE	5619	0.0586	180	99
DESCHAMPS AVE @ MARIER AVE	3021	0.0461	320	57
DEVINE RD @ FRANK KENNY RD	6229	0.0596	0	5
DEVINE RD @ FRONTIER RD	3726	0.0748	0	1
DEVINE RD @ SAND RD	1472	0.0891	0	0
DIAMONDVIEW RD @ DONALD B. MUNRO DR	2125	0.0578	0	0
DIAMONDVIEW RD @ MCGEE SIDE RD	397	0.1446	0	0
DILWORTH RD @ FOURTH LINE RD	4673	0.0456	2	0
DILWORTH RD @ THIRD LINE RD	696	0.0729	1	0
DIVISION ST @ ROCKDALE RD	3076	0.045	11	0
DOBSON LANE @ MCBEAN ST	1497	0.1051	32	4
DOBSON LANE @ MCBEAN ST	713	0.1264	2	1
DOMINION SPRINGS RD @ KINBURN SIDE RD	1626	0.0494	0	0
DONALD B. MUNRO DR @ GRANTS SIDE RD	632	0.0492	3	2
DONALD B. MUNRO DR/OLD CARP RD W @ MARCH RD	6542	0.0406	0	1
DONALD ST @ 110 E OF ST. LAURENT BLVD	16515	0.0254	563	14
DONNELLY DR @ HARNETT RD	1688	0.0544	0	0
DONNELLY DR @ MCCORDICK RD	5029	0.0319	0	0
DOVERCOURT AVE @ WINDERMERE AVE	3104	0.0496	282	109
DOYLE RD @ SNAKE ISLAND RD	4520	0.0725	1	0

DOZOIS RD @ GOUGH RD	2129	0.0423	1	0
DRAPER AVE N @ MORRISON DR N	4568	0.0395	280	97
DRIVEWAY (THE) @ MORNINGSIDE LANE	7939	0.0073	18	53
DUMAURIER AVE @ BARWELL AVE/GRENON AVE	2609	0.0691	175	2
DUMAURIER AVE @ RAMSEY CRES S	2058	0.0796	39	0
DUMAURIER AVE @ RICHMOND RD	16771	0.0278	241	17
DUMAURIER AVE @ SPLINTER CRES N	1704	0.0673	129	10
DUNNING RD @ MAGLADRY RD	1552	0.1447	0	0
DUNNING RD @ REGIMBALD RD	2340	0.1307	0	2
DUNROBIN RD @ KERWIN RD	6852	0.0428	0	0
DUNROBIN RD @ KILMAURS SIDE RD	1864	0.0492	0	0
DUNROBIN RD @ KINBURN SIDE RD	5636	0.0454	1	2
DUNROBIN RD @ VANCES SIDE RD	5626	0.0452	0	0
DWYER HILL RD @ DONNELLY DR	1958	0.0435	4	1
DWYER HILL RD @ FERNBANK RD	3916	0.0523	1	16
DWYER HILL RD @ GOLF CLUB WAY	4366	0.0462	0	7
DWYER HILL RD @ PURDY RD	1921	0.029	0	0
EAGLESON RD @ EMERALD MEADOWS DR	10247	0.0433	15	0
EAGLESON RD @ FLEWELLYN RD	12149	0.0452	0	1
EAGLESON RD @ HOPE SIDE RD/TERRY FOX DR	22445	0.0493	4	21
EAGLESON RD @ RUSHMORE RD	5999	0.0508	0	0
EAGLESON RD/MCCORDICK RD @ BROPHY DR	5976	0.0688	0	2
EARL ARMSTRONG RD @ FIRE STATION/235 E OF SPRATT RD	20464	0.0277	4	0
EARL ARMSTRONG RD @ LIMEBANK RD	21693	0.0403	3	0
EARL ARMSTRONG RD @ PARK N RIDE/295 E OF RIVER RD	30098	0.0296	80	1
EARL ARMSTRONG RD @ RIVER RD	43396	0.0338	30	0
EARL ARMSTRONG RD @ SPRATT RD	29934	0.0385	87	7
EASTBOURNE AVE @ ST. LAURENT BLVD	3272	0.0629	98	10
EASTMAN AVE @ MANOTICK MAIN ST	8071	0.0475	10	13
BANKFIELD RD @ MANOTICK MAIN ST/RIDEAU VALLEY	18629	0.062	0	1
BANTREE ST @ INNES RD	43058	0.0972	86	6
BANTREE ST @ INNES RD	39307	0.0863	135	37
BARNSDALE RD @ PRINCE OF WALES DR	11825	0.033	2	0
BARNSDALE RD @ RIDEAU VALLEY DR	10161	0.0427	1	2
BARNSDALE RD @ TWIN ELM RD N	2946	0.0506	0	0
BARNSDALE RD E @ CEDARVIEW RD E	4447	0.0782	0	0
BARNSDALE RD S @ TWIN ELM RD S	2865	0.0641	0	0
BARRAN ST @ FALLOWFIELD RD	18918	0.0304	3	1
BASELINE RD @ 115M E OF CLYDE AVE	31337	0.0201	105	34
BASELINE RD @ 207 E OF CLYDE AVE	35742	0.0206	848	67
BASELINE RD @ CEDARVIEW RD	27974	0.0255	18	4
BASELINE RD @ CENTREPOINTE DR E/HIGHGATE RD	41429	0.0171	368	4
BASELINE RD @ CLYDE AVE	56866	0.0192	693	108
BASELINE RD @ CORDOVA ST	36306	0.0226	111	1

BASELINE RD @ FERGUSON ST	35531	0.0227	158	3
BASELINE RD @ LEXINGTON ST	40675	0.0219	47	15
BASELINE RD @ ST. HELEN'S PL	30500	0.0249	86	15
BASELINE RD @ ZENA ST	40604	0.0252	66	10
BASSWOOD AVE @ CARLETON CATHCART ST	741	0.0487	41	20
BATHGATE DR @ DEN HAAG DR	6971	0.0442	258	55
BAXTER RD @ IRIS ST	8425	0.037	112	115
BAY ST @ GLADSTONE AVE	9852	0.0412	960	247
BAY ST @ QUEEN ST	11330	0.0301	1767	68
BAY ST @ WELLINGTON ST	46962	0.0539	1384	320
BAYSHORE DR @ RICHMOND RD	30931	0.0237	22	4
BAYSHORE DR @ WOODRIDGE CRES N	11576	0.0378	441	11
BAYSHORE DR @ WOODRIDGE CRES S	17040	0.0315	604	17
BEARBROOK RD @ NORTH PARK DR S	7663	0.0254	120	78
BEATRICE DR @ CLARIDGE DR	6503	0.0272	327	60
METCALFE ST @ SLATER ST	24003	0.0451	15715	105
RICHMOND RD @ NORTHSIDE RD E	34559	0.0228	288	57
BEAUMONT RD @ KILBORN AVE	4831	0.036	123	129
BEAUSEJOUR DR @ COUNTRY WALK DR	1994	0.0403	155	56
BEAUSEJOUR DR @ DES SAPINS GDN	1907	0.0352	117	49
BEAUSOLEIL DR @ COBOURG ST	9406	0.0591	231	45
BEAUSOLEIL DR @ MURRAY ST	2596	0.0107	416	210
BEAVER RDG @ MEADOWLANDS DR	11329	0.0323	50	8
BECKENHAM LANE @ CEDAR RD S	1128	0.0131	6	9
BEECHWOOD AVE @ CHARLEVOIX ST/MACKAY ST	21350	0.0381	1864	88
BEECHWOOD AVE @ LANGEVIN AVE	20282	0.0472	338	89
BEECHWOOD AVE @ MARIER AVE/PUTMAN AVE	16023	0.0456	904	66
BEECHWOOD AVE @ SPRINGFIELD RD	19953	0.0474	1666	96
BEECHWOOD AVE @ ST. CHARLES ST	15148	0.0454	526	64
BELCOURT BLVD @ INNES RD	33365	0.03	266	15
BELFAST RD @ TRAINYARDS	15825	0.0617	224	2
BELL ST @ CARLING AVE	24663	0.0231	365	149
BEN ST @ COTE ST	4094	0.0129	105	15
BENLEA DR W @ WOODFIELD DR W	3155	0.0457	76	36
BERRIGAN DR @ CLARIDGE DR	7928	0.026	1473	3
BERTONA ST @ CRAIG HENRY DR	4851	0.0487	139	4
BESSERER ST @ KING EDWARD AVE	15697	0.0216	2420	70
BEVERLEY AVE @ SIMS AVE	419	0.0313	70	12
BEVERLY ST @ JONATHAN PACK ST	2134	0.0222	47	47
BILBERRY DR @ QUARRY RIDGE DR	1443	0.0429	11	0
BILL LEATHEM DR @ LEIKIN DR S	8925	0.0294	143	82
BILL LEATHEM DR @ LEIKIN DR S	9768	0.039	52	0
BILLINGS BRIDGES RAMP NB @ RIVERSIDE DR EB	20971	0.0192	11	6
BIRCH AVE @ FARNHAM CRES	1356	0.1282	54	18

BIRCHGROVE RD @ LARMOURS RD	68	0.1667	0	0
BIRCHGROVE RD @ MAGLADRY RD	336	0.1366	2	0
BLACKSTONE CRES @ SOUTHALE CRES S	2016	0.0902	100	10
BLACKWELL ST @ LEEDS AVE	3165	0.2066	16	3
BLAIR PL @ OGILVIE RD	22246	0.0341	185	4
BLAIR RD @ MEADOWBROOK RD	29056	0.0435	149	2
BLAIR RD @ MEADOWBROOK RD	25370	0.0386	76	3
BLAIR RD @ MOWAT ST	11761	0.0294	50	21
BLAIR RD @ MOWAT ST	11150	0.0237	89	86
BLAIR RD @ OGILVIE RD	42584	0.0303	1447	34
BLAIR RD @ REGIONAL RD 174 N/OR174 IC112 RAMP61	44137	0.0518	865	3
BLAIR ST @ DRAKE AVE	2717	0.0271	35	18
BLANCHFIELD RD @ CABIN RD	868	0.0839	0	0
BLANCHFIELD RD @ SNAKE ISLAND RD	5438	0.0998	4	3
BLASDELL AVE @ ST. LAURENT BLVD	2671	0.084	92	25
BLOHM DR @ 68 N OF BRISTON PRIV/ROBERT BATEMAN	3167	0.0644	125	3
BLOHM DR @ JOHNSTON RD	3640	0.0779	167	7
BLOHM DR @ KARSH DR E	2274	0.1132	97	11
BLOHM DR @ WINNEGREEN CRT E/FOREST GLADE CRES	3421	0.0637	61	7
BLOHM DR @ WOODBURY CRES W/TED GRANT PRIV	2947	0.0573	244	15
BOOTH ST @ CARLING AVE	31445	0.0225	1189	428
BOOTH ST @ DANIEL MCCANN ST	12651	0.0144	499	285
BOOTH ST @ MIDDLE ST	15681	0.0689	557	214
BOOTH ST @ ORANGEVILLE ST	16376	0.0147	926	321
BOREALIS CRES @ DEN HAAG DR S	2100	0.0616	80	31
BOTELER ST @ DALHOUSIE ST/MACDONALDCARTIER BR	16370	0.0215	360	31
BOTRIELL WAY N @ CHARLEMAGNE BLVD	11022	0.026	138	1
BOUNDARY RD @ CARTWRIGHT RD	5919	0.0482	0	0
BOUNDARY RD @ COOPER HILL RD	5852	0.0493	0	0
BOUNDARY RD @ MITCH OWENS RD	10235	0.0584	0	1
BOUNDARY RD @ NINTH LINE RD	10994	0.0739	1	0
BOUNDARY RD @ RUSSELL RD E	7886	0.057	10	2
BOWESVILLE RD @ RIDEAU RD	7542	0.1376	1	3
BOYER RD @ MEADOWGLEN DR	2930	0.064	80	3
BRIAN COBURN BLVD @ ESPRIT DR	12313	0.0408	158	1
BRIAN COBURN BLVD @ PORTOBELLO BLVD	10792	0.0413	174	0
BRIAN GOOD AVE @ HAWKESWOOD DR	2536	0.0484	73	3
BRIAR HILL DR @ FEATHERSTON DR	2770	0.0266	115	49
BRIDGE ST @ DICKINSON ST	19287	0.0743	51	0
BRIDGE ST @ LONG ISLAND RD	19574	0.0676	37	0
BRIDGE ST/MAPLE AVE @ MANOTICK MAIN ST	24694	0.0557	31	0
BRIDGESTONE DR @ EAGLESON RD	16098	0.0326	12	0
BRIDLEWOOD DR/BUDAPEST CRES S @ STEEPLE CHASE DR	4495	0.0186	186	8
BRIERWOOD AVE @ BYRON AVE	4732	0.0132	112	182

BRITANNIA RD @ HOWE ST	2983	0.0753	535	1356
METCALFE ST @ SOMERSET ST	16956	0.0373	4877	326
RICHMOND RD @ SEYTON DR	13066	0.0426	85	1
METEOR AVE @ MUSTANG ST	555	0.0885	8	7
MICHAEL COWPLAND DR @ TERENCE MATTHEWS CRES E	10442	0.0218	114	0
RICHMOND RD @ WINONA AVE	10968	0.0315	725	151
MICHAEL ST @ BELFAST RD	9434	0.1091	39	18
RIDEAU FOREST DR @ RIVER RD	6044	0.0404	1	0
MICHAEL ST @ PARISIEN ST W	3615	0.0798	190	11
RIDEAU TER @ SPRINGFIELD RD	4762	0.0458	707	55
MICHELE DR @ PENNY DR	2132	0.0777	87	1
RIDEAU VALLEY DR @ 36 S OF COMMODORE DR/KARS P	1256	0.0551	27	1
MILL HILL RD @ ROBERTSON RD	21072	0.026	18	8
RIDEAU VALLEY DR @ OLD WELLINGTON ST	948	0.045	28	0
MILTON RD @ NAVAN RD	9845	0.0788	0	0
RIDEAU VALLEY DR E @ ROGER STEVENS DR E	7534	0.0539	0	0
MILTON RD @ PERRAULT RD	4648	0.0666	0	0
RIDGEWOOD AVE @ RIVERSIDE DR	34877	0.0195	81	3
MILTON RD @ SMITH RD	4793	0.0745	1	0
RIDGEWOOD AVE @ SPRINGLAND DR	4172	0.0576	205	9
MILTON RD/SABOURIN RD @ RUSSELL RD	9436	0.0911	0	0
RIVER RD @ 290M N OF BALMORAL DR	11943	0.0158	0	6
MITCH OWENS RD @ STAGECOACH RD	18176	0.1001	4	1
RIVER RD @ 700 N OF EARL ARMSTRONG RD	17777	0.0201	8	1
RIVER RD @ RIDEAU RD	14684	0.0548	4	1
RIVER RD @ TEWSLEY	23615	0.0374	231	2
RIVERDALE AVE @ SUNNYSIDE AVE	9317	0.0233	441	23
RIVERDALE AVE @ WINDSOR AVE	3640	0.043	65	17
RIVERSIDE DR @ HERON RD	77595	0.0257	442	75
RIVERSIDE DR @ TREMBLAY RD/HWY417 IC117 RAMP52	66075	0.0619	31	5
RIVERSIDE DR RAMP 42A @ RIVERSIDE DR	35818	0.0224	42	8
RIVERSTONE DR @ PONDHOLLOW WAY	903	0.0726	64	3
ROCKY HILL DR @ PRINCE OF WALES DR	31762	0.0257	6	0
ROGER GUINDON AVE @ SMYTH RD	26387	0.0324	277	4
ROGER STEVENS DR @ SECOND LINE RD	7314	0.0771	0	0
ROTHWELL CIRC @ ROTHWELL DR	1084	0.0121	8	33
RUISSELLET RD @ RUSSELL RD	5070	0.0733	0	0
RUSSELL AVE @ TEMPLETON ST	1993	0.0189	466	94
RUSSELL RD @ SAUMURE RD/LANGLADE RD	6676	0.0701	6	0
RUSSELL RD @ SOUTHVALE CRES S	13152	0.1	301	2
RUSSLAND RD @ SAUMURE RD	4482	0.0427	0	1
SAI CRES @ WINNEGREN CRT W	2692	0.073	247	16
SANFORD FLEMING AVE @ TERMINAL AVE	8176	0.1592	1025	9
SAUNDERSON DR @ GOREN AVE	5761	0.0165	140	37

SAUNDERSON DR @ HAMLET RD	4998	0.0197	156	18
SAUNDERSON DR @ SMYTH RD	21668	0.0343	227	4
SAUNDERSON DR @ WINGATE DR	4347	0.0226	148	65
SAVILLE ROW @ SHERBOURNE RD	4901	0.0368	292	78
SCOTT ST @ WINONA AVE	8453	0.0384	86	179
SECOND AVE @ BRONSON AVE	38341	0.0203	201	34
SEYTON DR @ SEYTON DR	2596	0.0915	85	4
SHEFFIELD RD @ WALKLEY RD	40553	0.1033	0	1
SHERBOURNE RD @ WINDERMERE AVE	4541	0.0173	100	53
SHERWOOD DR @ WOODSTOCK ST	1946	0.015	143	52
SHILLINGTON AVE @ SILVER ST	3043	0.0232	168	8
SIXTH LINE RD @ BERRY SIDE RD	1399	0.055	0	0
SMYTH RD @ BOTSFORD ST/DAUPHIN RD	24631	0.0356	523	11
SMYTH RD @ GENERAL HOSPITAL E	26696	0.0274	597	25
SMYTH RD/OTHELLO AVE @ RUSSELL RD W	23148	0.0384	584	84
SNAKE ISLAND RD @ STAGECOACH RD	8840	0.0828	0	3
SPRINGLAND DR N @ FLANNERY DR N	4248	0.0493	400	29
ST. CHARLES ST @ ALICE ST	854	0.0211	157	103
ST. JOSEPH BLVD @ OR174 IC101 RAMP25	10806	0.0243	18	2
ST. JOSEPH BLVD @ OR174 IC101 RAMP25	22164	0.0298	0	11
ST. JOSEPH BLVD @ REGIONAL RD 174/TRANSITWAY	30195	0.043	193	11
ST. JOSEPH BLVD @ TAYLOR CREEK DR	9605	0.0253	11	6
ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD	29604	0.0315	109	55
ST. JOSEPH BLVD/OLD MONTREAL RD @ TRIM RD	29314	0.0374	137	59
ST. LAURENT BLVD @ TRANSITWAY	36715	0.0877	22	3
ST. LAURENT BLVD @ TREMBLAY RD	36254	0.0824	108	1
STAGECOACH RD @ EMPIRE GROVE ST/STANMORE ST	5165	0.0835	5	1
STAGECOACH RD @ SUNCREST DR/JACK PINE CRES S	7295	0.0914	0	2
STANLEY AVE @ SUSSEX DR	19644	0.0184	535	1008
STANLEY AVE @ UNION ST	3033	0.0119	756	171
STEEPLE CHASE DR @ KOKANEE GT/SPRINGWATER DR S	3417	0.0446	127	0
STEVENAGE DR @ SWANSEA CRES E	6553	0.2049	14	4
STITTSVILLE MAIN ST/HUNTLEY RD @ FLEWELLYN RD	9125	0.0577	0	4
STONEHAVEN DR @ FURLONG CRES E/PINE HILL DR	9073	0.0298	144	8
SUNBURST ST @ FERNSIDE ST	539	0.1125	34	1
SUNNYSIDE AVE @ LEONARD AVE	5766	0.0262	445	19
TENTH LINE RD @ WALL RD	6603	0.0841	0	0
TERMINAL AVE @ TRAINYARDS DR	13448	0.052	204	5
TERON RD @ PARKWAY (THE)/PENFIELD DR S	12101	0.0405	146	33
TORWOOD DR @ VANCES SIDE RD	1005	0.0473	8	0
TRAIL SIDE CIRC @ VALIN ST	1794	0.0772	27	0
TRAINYARDS DR @ RAILMARKET	14866	0.0227	116	1
TREMBLAY RD @ TRAIN STATION	10071	0.0541	30	5
TRIM RD @ DAIRY DR/TAYLOR CREEK DR	23943	0.0481	288	60

TRIM RD @ DAIRY DR/TAYLOR CREEK DR	24097	0.0523	114	30
TRIM RD @ VALIN ST	14771	0.0443	75	1
TRIM RD @ WATTERS RD	26420	0.028	118	4
ULLSWATER DR @ CARLING AVE	16135	0.0253	19	7
UPPER DWYER HILL RD @ COUNTY RD 29 W	2663	0.0603	0	2
UPPER DWYER HILL RD @ MCARTON RD	3031	0.0811	2	14
UPPER DWYER HILL RD @ VAUGHAN SIDE RD	1068	0.0767	1	0
VAAN DR @ WOODROFFE AVE	26929	0.0204	13	128
VANIER PKWY/CRICHTON ST @ BEECHWOOD AVE/ST. PA	43855	0.0278	923	115
VICTORIA ST @ YORKS CORNERS RD	4416	0.0516	1	1
VIEWMOUNT DR @ MERIVALE RD	39225	0.0361	1049	36
WALDEN DR @ KANATA AVE	7383	0.0519	116	5
WALKLEY RD @ 158 E OF HEATHERINGTON RD	16509	0.0431	257	3
WALKLEY RD @ 160 W OF CONROY RD	40397	0.0383	58	2
WALKLEY RD @ WEXFORD WAY	18987	0.0222	38	10
WEST HUNT CLUB RD @ WOODROFFE AVE	58117	0.0438	72	30
WOODRIDGE CRES @ TRANSITWAY LINK	5015	0.1173	263	2
WOODROFFE AVE @ ALGONQUIN COLLEGE/TRANSITWAY S	41023	0.0293	1251	3
145 N OF VIMY PLACE PRIV @ BOOTH ST	22251	0.0478	166	47
MITCH OWENS RD/BRIDGE ST @ RIVER RD	24779	0.0608	13	0
160 E OF CARSON RD @ DEN HAAG DR	3953	0.052	832	6
MONTFORT ST @ PARK ST	1795	0.0484	177	78
MONTREAL RD @ 46 E OF HILLSIDE DR/MONTREAL SQU	32390	0.0261	1356	7
250 N OF BRIAN COBURN BLVD @ TENTH LINE RD	21155	0.0218	43	1
MONTREAL RD @ 46 E OF HILLSIDE DR/MONTREAL SQU	28652	0.0269	1341	97
4TH LINE RD @ DALMENY RD	2190	0.1047	0	0
8TH LINE RD @ COOPER HILL RD	2730	0.0576	1	0
MONTREAL RD @ BATHGATE DR/BURMA RD	27932	0.0295	350	6
8TH LINE RD @ GLENWOOD DR	1700	0.0617	1	0
MONTREAL RD @ CARSON'S RD/CODD'S RD	29240	0.0322	745	6
8TH LINE RD @ MARIONVILLE RD	1395	0.0601	0	0
MONTREAL RD @ DEN HAAG DR/LANG'S RD	32055	0.0299	528	8
8TH LINE RD @ MITCH OWENS RD	8016	0.1002	0	0
MONTREAL RD @ MONTFORT HOSPITAL	35383	0.0322	367	11
8TH LINE RD @ VICTORIA ST	7881	0.0559	26	3
MONTREAL RD @ VANIER PKWY	51276	0.0227	1567	55
9TH LINE RD @ COOPER HILL RD	615	0.1173	1	2
MONTREAL RD/ST. JOSEPH BLVD @ OR174 IC109 RAMP	26766	0.0298	184	8
9TH LINE RD @ MARVELVILLE RD	1864	0.1016	0	0
MOODIE DR @ TRAIL RD	5188	0.2764	0	0
ACRES RD @ BELMEADE RD	612	0.128	0	0
MOUNTSHANNON DR @ WOODFORD WAY	4224	0.044	229	3
ADELAIDE ST @ FIFTH AVE	2340	0.0364	254	175
MUNSTER RD @ COLDSTREAM DR/DOGWOOD DR S	1390	0.1191	19	8

ADMIRAL AVE @ SHILLINGTON AVE	3218	0.0575	283	23
MUNSTER RD @ FALLOWFIELD RD	3322	0.0459	1	1
AGES DR @ LEGACY RD	3205	0.2137	18	2
MURPHY SIDE RD @ SECOND LINE RD	1654	0.0535	0	0
AGES DR @ SWANSEA CRES	1406	0.2401	8	4
NAVAN RD @ SPRING VALLEY DR	7783	0.0915	22	0
AIRPORT PKWY @ HUNT CLUB RD	48699	0.0435	52	2
NAVAN RD W @ MER BLEUE RD	8449	0.0905	5	0
AIRPORT PKWY @ HUNT CLUB RD	51248	0.0444	131	13
NELSON ST @ SOMERSET ST	2107	0.0605	1815	133
AKENHEAD CRES/BRUNSKILL WAY @ KEYROCK DR	1814	0.0542	95	39
NIXON DR/ROGER STEVENS DR @ RIVER RD	10579	0.066	0	0
ALBERT ST @ BANK ST	19513	0.0656	19893	167
NORMAN ST @ PRESTON ST	14663	0.0375	1126	91
ALBERT ST @ BANK ST	12870	0.0741	19021	189
NORTH BOWESVILLE RD @ UPLANDS DR	6506	0.0417	128	22
ALBERT ST @ BOOTH ST	32578	0.0489	1839	253
NOTRE DAME ST @ ORLEANS BLVD	13106	0.0143	106	76
ALBERT ST @ ELGIN ST/MACKENZIE KING BRIDGE	27152	0.0509	4582	127
O'CONNOR ST @ QUEEN ST	15339	0.0948	25500	114
ALBERT ST @ KENT ST (OTTAWA)	27126	0.0395	15625	96
O'CONNOR ST @ SLATER ST	22966	0.05	16538	85
ALBERT ST @ LYON ST	26551	0.0384	12023	134
O'CONNOR ST @ STRATHCONA AVE	3987	0.037	534	64
ALBERT ST @ LYON ST	19019	0.0433	12286	179
OGILVIE RD @ 185 E OF BATHGATE DR/185 E OF CIT	26444	0.0205	1006	12
ALBERT ST @ METCALFE ST	21224	0.0415	18325	93
ALBERT ST @ O'CONNOR ST	21728	0.0491	18894	105
OGILVIE RD @ BATHGATE DR/CITYPARK DR W	33455	0.0237	968	30
ALBION RD @ 118 S OF BRENDA CR	3953	0.0322	93	2
OGILVIE RD @ CITY PARK DR E/CSIS HQ ACCESS	28111	0.0316	2017	19
ALBION RD @ BANK ST	31209	0.0319	185	35
OLD COLONY RD @ ROTHESAY DR	1983	0.0504	106	3
ALBION RD @ BRIDLE PATH DR	13033	0.0277	73	18
OLD MONTREAL RD @ 125M E OF KINSELLA DR	1439	0.0418	1	0
ALBION RD @ CAHILL DR	7107	0.0367	313	58
OLD MONTREAL RD @ 125M E OF KINSELLA DR	1777	0.0304	1	2
ALBION RD @ D'AOUST AVE	10952	0.0308	112	57
OLD MONTREAL RD @ GRAND-CHENE, COUR DU CRT	7023	0.0252	4	4
ALBION RD @ HEATHERINGTON RD	5313	0.0669	302	28
OLD MONTREAL RD @ QUIGLEY HILL RD	3011	0.0359	7	9
ALBION RD @ LESTER RD	25168	0.0462	32	20
OLD MONTREAL RD E @ REGIONAL RD 174	19076	0.0389	0	1
ALBION RD @ MITCH OWENS RD	18740	0.1143	3	0

OLD PRESCOTT RD @ STAGECOACH RD	6486	0.0847	1	0
ALDEA AVE @ CLEMENTINE BLVD	2229	0.0691	115	59
OLD PRESCOTT RD @ STAGECOACH RD	4978	0.0969	0	0
ALDERCREST DR/MALCOLM PL @ FIELDROW ST	2060	0.0231	84	2
OLD SHIP RD @ FITZROY ST	371	0.0487	15	0
ALGOMA RD @ COMSTOCK RD	3578	0.1845	23	12
OR174 IC109 RAMP56 @ MONTREAL RD	32855	0.0278	13	8
ALLBIRCH RD @ CONSTANCE BAY RD	3595	0.0497	8	0
OR174 IC109 RAMP65 @ MONTREAL RD	23992	0.0369	185	13
ALLEN BLVD @ MCARTHUR AVE	13555	0.0293	469	42
OR174 IC109 RAMP66 @ MONTREAL RD	28813	0.0233	304	11
ALTA VISTA DR @ CALEDON ST	14572	0.0278	218	57
ORLEANS BLVD @ MAPLE RUN AVE/BEAUSEJOUR DR S	13488	0.0468	78	0
ALTA VISTA DR @ CLUNY ST	15501	0.0267	59	42
OSGOODE MAIN ST @ NIXON DR	4042	0.049	5	0
ALTA VISTA DR @ HOSPITAL LINK RD	21425	0.0342	222	9
OSGOODE MAIN ST @ STAGECOACH RD	4714	0.0664	0	0
ALTA VISTA DR @ ROGER RD	15204	0.0234	70	63
O'TOOLE RD @ WILHAVEN DR	1596	0.0287	13	33
AMIENS ST @ TENTH LINE RD	31497	0.0213	192	8
PAMILLA ST @ ROCHESTER ST	5144	0.0248	1165	32
ANALDEA DR/ WHITE ALDER AVE @ BANK ST	22163	0.0521	96	0
PAMILLA ST @ ROCHESTER ST	5254	0.0139	999	23
ANDERSON RD @ EIGHTH LINE RD E	4934	0.0435	2	0
PANA RD @ YORKS CORNERS RD	905	0.0797	0	0
ANDERSON RD @ LEITRIM RD	8275	0.053	0	0
PARKDALE AVE @ GLADSTONE AVE	18362	0.0437	569	23
ANDERSON RD @ NINTH LINE RD	3620	0.0483	1	0
PARKDALE AVE @ SHERWOOD DR	17001	0.0276	388	8
PARKGLEN DR @ WOODROFFE AVE	31511	0.0276	128	29
PARKWAY RD @ SALE BARN RD	2390	0.0442	0	1
PARKWAY RD @ STAGECOACH RD	8130	0.0641	1	1
PARKWAY RD @ YORKS CORNERS RD	1218	0.1009	1	0
PERTH ST @ SHEA RD	15191	0.0325	7	21
PHELAN RD @ RIDEAU VALLEY DR	2365	0.0374	0	0
PICKFORD DR @ SHATNER GT	2226	0.0559	127	2
PINECREST RD @ BASELINE RD	31347	0.0205	90	51
PINECREST RD @ RICHMOND RD	36493	0.0223	214	7
PINECREST RD @ ST. STEPHEN'S ST	23610	0.0196	43	20
PINECREST RD/HWY 417 PINECRE IC129R63 @ TRANSI	40855	0.0536	622	3
PLACE D'ORLEANS @ CENTRUM BLVD/PLACE D'ORLEANS	10857	0.0305	223	1
PLACE D'ORLEANS DR @ OR174 IC102 RAMP51/TRANSI	13921	0.0706	62	0
PLACE D'ORLEANS DR @ PLACE D'ORLEANS SC N	14410	0.0219	363	2
PLACE D'ORLEANS DR @ PLACE D'ORLEANS SC S	13186	0.0206	108	0

PLACE D'ORLEANS DR W @ ST. JOSEPH BLVD	26259	0.0157	189	3
PLACE D'ORLEANS DR W @ ST. JOSEPH BLVD	23091	0.0196	303	38
PLEASANT PARK RD @ ST. LAURENT BLVD	20246	0.0286	290	21
PORTOBELLO BLVD @ CAPREOL ST/MARTELLO DR	4002	0.0303	151	59
PORTOBELLO BLVD @ SUMMER SKY ST	952	0.1377	56	2
PORTOBELLO BLVD @ VALIN ST	13119	0.0295	255	124
PORTOBELLO BLVD @ VALIN ST	12655	0.0302	184	0
PORTOBELLO BLVD/SPRINGRIDGE DR S @ TRIM RD	19184	0.0336	79	3
PRESLAND RD @ LOLA ST	8125	0.0321	399	134
PRESLAND RD @ VANIER PKWY	45543	0.0188	288	243
PRINCE CHARLES RD @ SAVILLE ROW	2926	0.0504	185	117
PRINCE OF WALES DR @ HARTWELL LOCKS/548 N OF R	22122	0.0203	37	29
PRINCE OF WALES DR @ MELFA CRES N	18321	0.0323	110	206
PRINCE OF WALES DR @ THIRD LINE RD	4015	0.0396	0	0
QUEEN ELIZABETH DRWY @ LAKEVIEW TER	14492	0.003	113	20
QUEEN ELIZABETH DRWY @ QUEEN ELIZABETH PL	16922	0.0025	141	38
QUEEN ELIZABETH DRWY @ THIRD AVE	13863	0.0032	159	16
QUEEN ELIZABETH DRWY @ WAVERLEY ST	8463	0.0041	112	14
QUEEN ST @ LYON ST	24117	0.0388	8492	178
RAMSAYVILLE RD @ LOUISEIZE RD	7771	0.0264	0	0
RAMSAYVILLE RD @ RUSSELL RD S	8292	0.0364	1	0
RENAUD RD @ NAVAN RD	14867	0.0638	64	12
REVELSTOKE DR @ RIVERSIDE DR	28929	0.0227	50	0
RICHARDSON SIDE RD @ SPRUCE RIDGE RD	1605	0.0684	0	2
RICHARDSON SIDE RD @ WILLIAM MOONEY RD	3101	0.0497	0	3
EDGECOMBE ST @ HASTINGS AVE	559	0.0261	125	6
EDGEWORTH AVE @ GEORGINA DR	3381	0.0223	324	60
ANDERSON RD @ RUSSELL RD	9979	0.0384	0	1
EIGHTH LINE RD E @ HALL RD E	999	0.0574	0	0
ANTARES DR N @ AURIGA DR N	7469	0.0492	42	14
ANTOCHI LANE @ MANOTICK MAIN ST	7072	0.0737	15	1
ANWATIN ST @ ARNOLD DR	1154	0.0469	38	0
APOLYDOR AVE @ CLEMENTINE BLVD	2132	0.0769	117	70
AQUAVIEW DR @ BRIAN COBURN BLVD	12717	0.0316	135	2
ARCH ST @ PLEASANT PARK RD	5499	0.0322	244	143
ARGYLE AVE @ QUEEN ELIZABETH DRWY	15177	0.0116	179	12
ARGYLE AVE E @ METCALFE ST	12890	0.0144	555	20
ARKOSE ST @ BOUNDSTONE WAY	986	0.0748	59	11
ARLINGTON AVE @ BOOTH ST	12311	0.0138	252	67
ARMSTRONG ST @ MERTON ST	2063	0.0151	531	297
ARMSTRONG ST @ PARKDALE AVE	11670	0.0451	926	46
ASHLEY ST @ MORRISON DR	4710	0.0428	125	89
ASHLEY ST @ MORRISON DR	4916	0.0393	79	10
ASHTON STATION RD @ HIGHWAY 7	3527	0.0428	0	6

ATHLONE AVE @ RICHMOND RD	11604	0.029	1890	396
AUTUMN RIDGE DR E @ BEAUSEJOUR DR E	2505	0.032	85	37
AUTUMN RIDGE DR W @ BEAUSEJOUR DR W	2051	0.0343	77	39
AVEIA PRIV/DAIRY DR @ OLD MONTREAL RD	8470	0.0507	18	1
AVENUE S @ TREMBLAY RD	2638	0.1186	93	23
AVIATION PKWY @ OGILVIE RD	49207	0.0186	303	560
AYLMER AVE @ BANK ST	22661	0.0301	1043	51
AYLWIN RD @ FERRY RD	181	0.0909	0	0
BADHAMS SIDE RD @ FERRY RD	59	0	0	0
BAIE-DES-CASTORS, DE LA RUE @ FAMILLE-LAPORTE, DE LA AVE	1353	0.0412	52	14
BAIRD'S GRANT LANE @ DUNROBIN RD	1324	0.0545	1	0
BANK ST @ CAMERON AVE	18300	0.0291	997	29
BANK ST @ CONROY RD	23450	0.044	6	4
BANK ST @ CONROY RD	23121	0.0435	1	0
BANK ST @ FLORA ST	15264	0.0416	2350	180
BANK ST @ HUNT CLUB RD	51721	0.0433	675	22
BANK ST @ HUNT CLUB RD	51629	0.0469	755	66
BANK ST @ JOHNSTON RD	34717	0.0277	820	26
BANK ST @ KINGSDALE AVE	16343	0.0441	120	8
BANK ST @ LEITRIM RD	35693	0.05	11	0
BANK ST @ MACLAREN ST	11038	0.0537	7717	262
BANK ST @ MITCH OWENS RD	21282	0.1108	2	0
BANK ST @ NOTTING HILL AVE	30343	0.0267	140	26
BANK ST @ OSSINGTON AVE	16207	0.0298	717	163
BANK ST @ POWELL AVE	17153	0.0433	1078	472
BANK ST @ QUEEN ST	17068	0.085	20370	169
BANK ST @ RIDGEMONT AVE	28530	0.0279	98	28
BANK ST @ RIVERDALE AVE	19544	0.0291	993	266
BANK ST @ ROTARY WAY	24127	0.0486	22	0
BANK ST @ SLATER ST	21731	0.0613	17241	183
BANK ST @ SPRINGHILL RD	7096	0.0767	0	0
BANK ST @ ST. BERNARD ST	18509	0.0407	113	10
BANK ST @ STRATHCONA AVE	18280	0.0463	1083	29
BANK ST @ WAVERLEY ST	12170	0.049	3142	205
BANKFIELD RD @ FIRST LINE RD	11062	0.0914	0	0
BANKFIELD RD @ FIRST LINE RD	9378	0.0811	0	1
ELGIN ST @ ISABELLA ST	9838	0.0259	792	95
ELGIN ST @ LAURIER AVE	30520	0.03	9606	151
ELGIN ST @ LAURIER AVE	24769	0.0344	16842	2837
ELGIN ST @ QUEEN ST	23987	0.0801	6267	164
ELGIN ST @ SLATER ST	30794	0.0431	6978	168
ELGIN ST @ SOMERSET ST	7951	0.0616	5773	46
ELLENDAL CRE @ LANARK AVE	3284	0.0289	183	56
EMMETT RD @ FRENCH HILL RD	759	0.1079	2	0

ESCADE DR @ LEIKIN DR	6158	0.0247	180	84
ESSON ST @ HUNT CLUB RD	27648	0.0519	2	3
ESTERLAWN PRIV @ FAIRLAWN AVE	5082	0.0329	86	19
EWING ST @ JOHNSTON RD	5228	0.0326	162	53
FABLE ST @ SHERWAY DR	6020	0.0378	246	59
FALAISE RD @ FISHER AVE	18202	0.032	46	2
FALLOWFIELD RD @ DWYER HILL RD	5177	0.0475	1	7
FALLOWFIELD RD @ HOLITMAN DR	24900	0.029	39	28
FALLOWFIELD RD @ TRANSITWAY/VIARAIL	25411	0.0442	111	48
FARMERS WAY @ NINTH LINE RD	956	0.0762	3	0
FEATHERSTON DR E @ KILBORN AVE E	8215	0.0373	255	313
FERNBANK RD @ JINKINSON RD	2317	0.133	0	9
FERNBANK RD @ ROMINA ST	8879	0.0417	34	0
FERNBANK RD @ STITTSVILLE MAIN ST	11250	0.0567	95	13
FIELDING DR @ MCCARTHY RD	8365	0.0359	68	2
FIFTH AVE @ QUEEN ELIZABETH DRWY	10668	0.0131	854	514
FIFTH AVE @ QUEEN ELIZABETH DRWY	10363	0.0078	1623	454
FIFTH AVE/CRAIG ST @ PERCY ST	4299	0.0175	762	423
FINDLAY CREEK DR @ BANK ST	19504	0.0587	47	1
FINDLAY CREEK DR @ WHITE ALDER AVE	7930	0.0409	43	1
FIRST LINE RD/RIDEAU VALLEY DR @ ROGER STEVENS	8870	0.0708	1	0
FISHER AVE @ TRENT ST	18840	0.0296	178	35
FLAMBOROUGH WAY @ HALTON TER	2770	0.0592	141	1
FLEMING AVE @ HAIG DR	7457	0.0259	95	64
FLEWELLYN RD @ MUNSTER RD E	3368	0.0764	8	6
FLEWELLYN RD @ SHEA RD	5501	0.064	0	0
FLORA ST @ KENT ST	18544	0.019	762	34
FOOTHILLS DR @ NORTHSIDE RD	4075	0.0386	1	2
FOREST HILL AVE @ PRINCE OF WALES DR	24092	0.0257	138	21
FOREST VALLEY DR @ MEADOWGLEN DR	6581	0.0291	129	7
FOREST VALLEY DR @ ORLEANS BLVD	17310	0.0375	100	0
FOREST VALLEY DR @ RIVERMILL CRES N	6039	0.0253	85	2
FORTUNE ST @ PERTH ST	8540	0.0509	18	1
FOURTH AVE @ O'CONNOR ST	3235	0.0231	663	678
FOURTH LINE RD @ LOCKHEAD RD	2295	0.0693	0	5
FOURTH LINE RD @ POLLOCK RD	1534	0.0962	1	0
FOURTH LINE RD @ PRINCE OF WALES DR	6900	0.0583	7	0
FRANK BENDER ST @ JEANNE D'ARC BLVD	24870	0.0271	145	1
FRANK KENNY RD @ FRENCH HILL RD	4558	0.1039	0	1
FRANK KENNY RD @ GIROUX RD	4813	0.1116	0	0
FRANK KENNY RD @ RUSSELL RD	10621	0.0745	1	10
FRANK KENNY RD/TED KELLY LANE @ OLD MONTREAL R	5295	0.0217	4	0
FRANKTOWN RD @ DWYER HILL RD	6661	0.0583	5	4
FRANKTOWN RD @ MUNSTER RD	5481	0.0583	0	2

FRASER AVE @ BYRON AVE	3792	0.0115	406	366
GALETTA SIDE RD @ LOGGERS WAY	2290	0.053	3	3
GALETTA SIDE RD @ STONECREST RD	1406	0.0723	1	3
GALETTA SIDE RD @ TYNDAL ST	2272	0.0418	15	0
GALETTA SIDE RD @ UPPER DWYER HILL RD	956	0.0703	0	0
GALETTA SIDE RD @ WOODKILTON RD	1528	0.0461	5	1
GALETTA SIDE RD N @ HIGHWAY 15	2656	0.0648	0	0
GARDENWAY DR @ THICKET WAY	2187	0.0808	88	29
GARFIELD AVE @ MAITLAND AVE	36511	0.0177	48	9
GARLANDSIDE RD @ RUSSLAND RD	2651	0.0467	0	0
GARVIN RD @ HUNTLEY RD	3309	0.0758	0	1
GENEST ST @ MARIER AVE	4130	0.0611	539	108
BRITANNIA RD @ ROWATT ST	1480	0.052	45	28
GEORGE ST @ DALHOUSIE ST	14895	0.0555	4591	63
GEORGINA DR @ MOUNTAINVIEW AVE	3817	0.0301	154	62
GILCHRIST ST @ SPENCER ST	2394	0.0123	290	192
GILMOUR ST @ PERCY ST	1624	0.0182	505	300
GLADSTONE AVE @ LEBRETON ST	13041	0.0346	724	514
GLADSTONE AVE @ MELROSE AVE	5485	0.0463	630	80
GLADSTONE AVE @ SPADINA AVE	5665	0.0431	339	88
GLEN ST @ VICTORIA ST	8638	0.0526	29	7
GLENVIEW AVE @ RIVERDALE AVE	7214	0.0343	79	7
GOLDEN ASH LANE @ STAGECOACH RD	8034	0.0885	1	1
GOLDEN AVE @ RICHMOND RD	12300	0.0386	1526	203
GOLFLINKS DR @ BLACKSHIRE CIRC/PONDHOLLOW WAY	2095	0.0508	129	23
GOLFLINKS DR E @ JOCKVALE RD	19388	0.0247	31	12
GRANT CARMAN DR @ VIEWMOUNT DR	10335	0.0484	216	3
GREENBANK RD @ HALF MOON BAY	13185	0.0206	201	85
GREENBANK RD @ HWY 417 IC129 RAMP57/IRIS ST	51949	0.0305	800	2
GREENBANK RD @ KILBIRNIE DR	3775	0.0456	43	9
GREENBANK RD @ MONTEREY DR	30301	0.0207	67	21
GREENBANK RD @ MONTEREY DR	30811	0.021	60	10
GREENBANK RD @ PRINCE OF WALES DR	10975	0.0454	0	6
GREENBANK RD @ WEST HUNT CLUB RD	61383	0.0261	1	2
GREGOIRE RD @ MARVELVILLE RD	3140	0.0553	0	3
GREGOIRE RD @ SPRINGHILL RD	2036	0.0707	0	1
GREY NUNS DR @ ST. JOSEPH BLVD	18005	0.0202	44	1
GREY'S CREEK RD @ STONE SCHOOL RD	935	0.086	0	0
GRONINGEN ST @ NONIUS ST	1093	0.0525	29	3
HAIG DR @ RUSSELL RD	11191	0.0367	282	3
HAIG DR @ WESTON DR	6747	0.024	249	72
HALL RD S @ RUSSELL RD	6462	0.0392	2	0
HALTON TER @ KLONDIKE RD	4063	0.0468	340	4
HAMILTON AVE @ TYNDALL ST	5576	0.0229	303	52

HARBISON RD @ MCCORDICK RD	1647	0.0816	0	0
HARBOUR ST @ CLIFFORD CAMPBELL ST	1502	0.0916	4	11
HARDING RD @ URBANDALE DR	4259	0.0146	49	16
HARMER AVE @ ISLAND PARK DR	9017	0.0093	108	45
HARRIS PL @ JOAN ST	283	0.0231	6	9
BRITTANY DR @ MONTREAL RD	33084	0.0299	679	14
HARTHILL WAY @ TARTAN DR	2132	0.0777	87	1
BROADHEAD AVE @ CLARE ST	2653	0.0705	83	218
BROADVIEW AVE @ DOVERCOURT AVE	6767	0.0327	1085	151
HAWTHORNE AVE/ISABELLA ST @ QUEEN ELIZABETH DR	28514	0.0164	1433	569
BROADVIEW AVE @ PRINCETON AVE	4090	0.018	1398	326
HAWTHORNE RD @ LEITRIM RD	21140	0.1414	1	0
BRONSON AVE @ CARLING AVE/GLEBE AVE	47695	0.0225	1596	279
HAWTHORNE RD @ RIDEAU RD	7087	0.1704	0	0
BRONSON AVE @ FINDLAY AVE	44058	0.0159	208	204
HAWTHORNE RD @ RUSSELL RD	23335	0.1362	20	4
BRONSON AVE @ JAMES ST	19599	0.0407	335	35
HAZELDEAN RD @ FRINGEWOOD DR	25795	0.0351	76	57
BRONSON AVE @ POWELL AVE	24373	0.0272	544	160
HAZELDEAN RD @ FRINGEWOOD DR	25111	0.0354	56	78
BRONSON AVE @ QUEEN ST	5184	0.0117	488	218
HAZELDEAN RD @ HUNTMAR DR/IBER RD	40034	0.0318	95	92
BRONSON/HERON RAMP 42/BRONSON/HERON RAMP 52 @	10796	0.0294	8	2
HAZELDEAN RD @ SWEETNAM DR	24954	0.0371	6	3
BROPHY DR @ FOURTH LINE RD	4319	0.107	0	0
HAZELDEAN RD/HAZELDEAN RD IC RAMP 62 @ HAZELDE	7460	0.1186	2	0
BROPHY DR @ MOODIE DR	4610	0.1585	1	0
HEATHERINGTON RD @ FAIRLEA CRES S/ANGELA PRIV	4235	0.0522	510	9
BRUIN RD @ CEDARVIEW RD	10377	0.0256	19	8
HEMLOCK RD @ THORNWOOD RD	13000	0.0209	27	118
BURKE ST @ MCBEAN ST	3259	0.0754	74	12
HENNEPIN ST @ KENNEVALE DR	4503	0.0368	213	2
BURRIS LANE @ MERIVALE RD	24178	0.0272	465	13
HENRY ST @ LEBRETON ST	2455	0.0119	169	50
BURTON RD @ MCVAGH RD	1551	0.1174	0	0
HERON RD @ FINN CRT	23684	0.0416	132	3
BUTTERFIELD RD/OWLSHEAD RD @ MUNSTER RD	2076	0.0821	31	6
HIGH ST @ RICHMOND RD	16010	0.0225	84	39
BYRON AVE @ GRANVILLE AVE	5426	0.0124	20	46
HIGHBURY PARK DR @ VIA SAN MARINO ST	3832	0.02	15	0
BYRON AVE @ HARMER AVE	6093	0.0207	676	109
HIGHWAY 15 @ WALTER BRADLEY RD	2237	0.0637	0	0
BYRON AVE @ HILLCREST AVE	5071	0.0187	34	173
HILLCREST AVE @ TILLBURY AVE	1450	0.0249	54	21

HILLMILLAR ST @ OLD MONTREAL RD	2977	0.0379	2	0
HINCKS LANE @ RIVERSIDE DR	36377	0.0238	32	13
HINTON AVE @ SHERWOOD DR	2400	0.0218	362	46
HOBBLEBUSH ST @ LONGFIELDS DR	8469	0.0312	134	3
HOLITZNER WAY @ LEIKIN DR	6585	0.0259	146	53
HOLLAND AVE @ ISLAND PARK DR/N.C.C. DRIVEWAY	23344	0.0307	205	68
HOLLAND AVE @ RUSKIN ST	12156	0.0568	228	17
HOPEWELL AVE @ SENECA ST	1442	0.0284	299	100
HUNT CLUB RD @ BRIDLE PATH DR/DAZE ST	48431	0.0419	594	15
HUNT CLUB RD @ PIKE ST/MAPLE PARK PRIV	25844	0.0474	16	0
HUNT CLUB RD @ RIVERSIDE DR	72173	0.0375	107	231
HUNTLEY RD @ FALLOWFIELD RD	6919	0.0533	2	6
HUNTMAR DR @ OLD CARP RD	3212	0.0281	0	0
HUNTMAR DR @ PALLADIUM DR S	20367	0.0191	25	2
HUNTMAR DR @ RICHARDSON SIDE RD	13144	0.0419	0	1
HUNTSVILLE DR @ TERRY FOX DR	18267	0.0252	2	3
HWY 416 ACRES IC75R24 @ HOLLY ACRES RD	18150	0.0371	7	1
HWY 416 WESTHUNT IC72R34 @ WEST HUNT CLUB RD	33769	0.0349	0	1
HWY 417 INNES IC112R57 @ INNES RD	39670	0.0692	0	1
HWY 417 ST.LAURE IC115R51 @ ST. LAURENT BLVD	45050	0.0829	50	11
HYDRO RD @ RUSSELL RD	4470	0.1103	0	5
INDIAN CREEK RD @ SAUMURE RD	2756	0.0779	0	1
INDUSTRIAL AVE @ TRAINYARDS DR	27104	0.0469	166	3
INDUSTRIAL AVE/INNES RD @ ST. LAURENT BLVD	58461	0.0631	142	1
INNES RD @ 177 W OF ORIENT PARK DR/EMILY CARR	11613	0.0372	218	2
INNES RD @ 215 W OF CYRVILLE RD/HOME DEPOT W	52380	0.042	44	3
INNES RD @ 260 E OF BELCOURT BLVD/WALMART SC	30382	0.0372	60	1
INNES RD @ 473 E OF PAGE RD/BUILDERS' WAREHOUS	26740	0.0368	70	4
INNES RD @ EASTPARK DR E/RONDEL ST	9693	0.0457	141	6
INNES RD @ LANTHIER DR/PRESTWICK DR	40859	0.0228	210	7
INNES RD @ PAGE RD	28015	0.0395	171	6
INVERNESS AVE @ BENSON ST	1852	0.0159	54	29
IRIS ST @ LAZARD ST	3833	0.0406	93	48
IRIS ST @ NAVAHO DR	4376	0.0408	115	33
IRIS ST @ PINECREST SC	17089	0.0338	279	3
IRIS ST @ TRANSITWAY	9227	0.1678	859	12
ISLAND PARK DR @ BYNG DR	8403	0.0089	69	33
IVY CRES @ PUTMAN AVE	511	0.0747	39	5
JASPER AVE @ KITCHENER AVE	1960	0.0418	35	17
JEANNE D'ARC BLVD @ BORLAND DR/VINETTE CRES	6464	0.0355	125	34
JEANNE D'ARC BLVD @ GREY NUNS DR/YOUVILLE DR	27398	0.028	309	0
JEANNE D'ARC BLVD @ MONTCEF CRT	23393	0.029	194	3
JEANNE D'ARC BLVD @ ORLEANS BLVD N	15701	0.0253	435	141
JEANNE D'ARC BLVD @ ORLEANS BLVD S	33015	0.0252	181	2

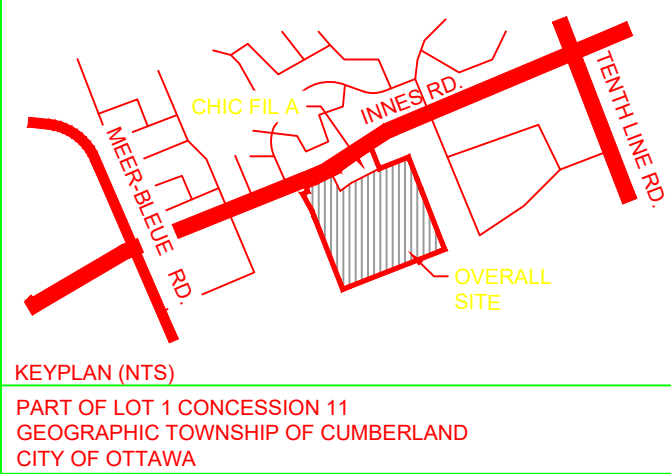
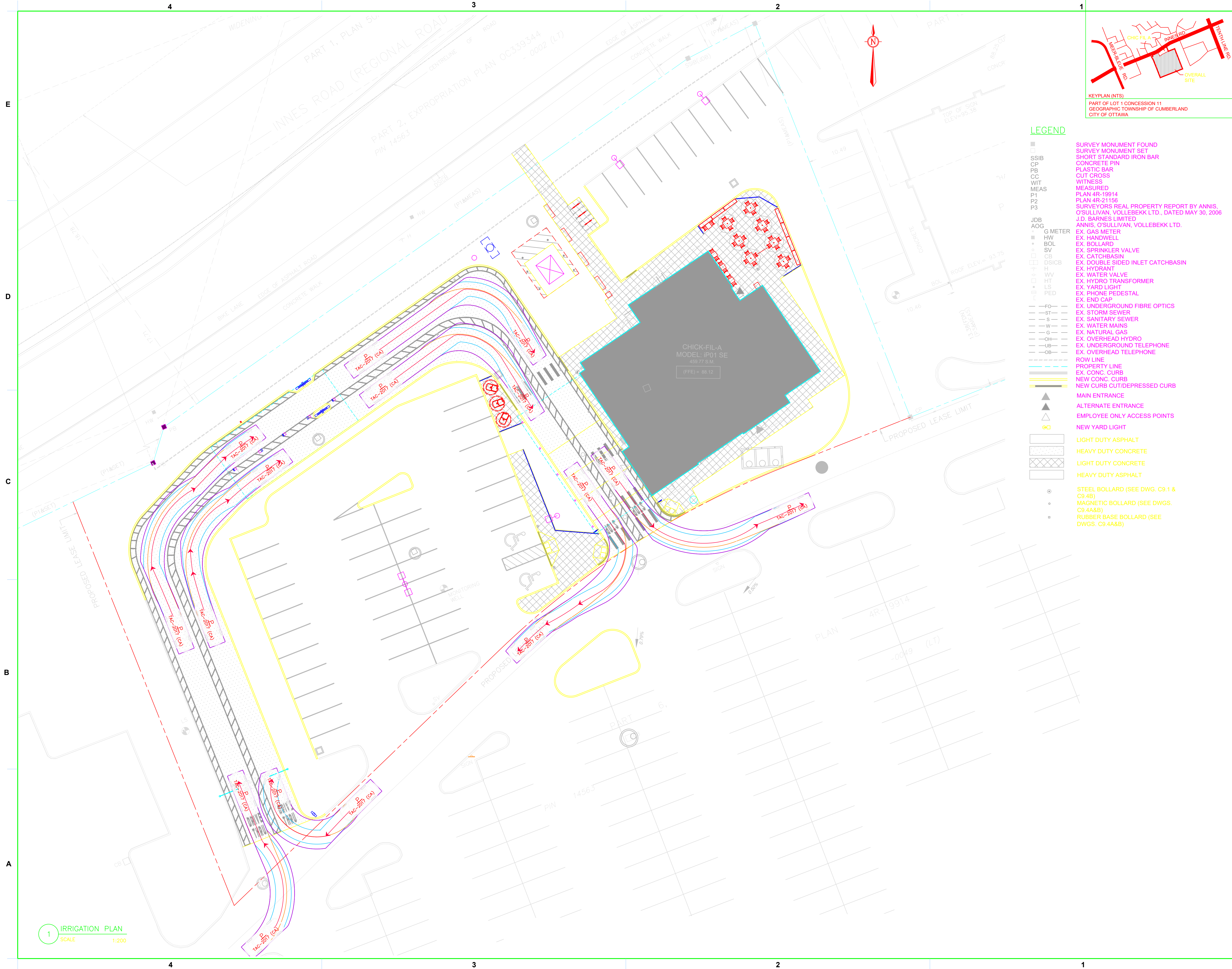
JEANNE D'ARC BLVD @ PADDLER WAY/VORLAGE DR E	9145	0.0394	133	0
JEANNE D'ARC BLVD N/OR174 IC105 RAMP63 @ TRANS	17334	0.0463	289	4
JOCKVALE RD @ LAMING ST/WEYBRIDGE DR W	8722	0.0234	88	0
JOCKVALE RD @ LONGFIELDS DR	18066	0.0326	11	0
JOCKVALE RD/RIDEAU VALLEY DR @ PRINCE OF WALES	27156	0.0284	0	0
JOHN QUINN RD @ MITCH OWENS RD	9130	0.0784	0	0
JOHN QUINN RD @ STONE SCHOOL RD	2533	0.0278	0	0
JOHN SHAW RD @ KINBURN SIDE RD	1287	0.0943	6	2
JOHN ST @ THOMAS ST	1060	0.0634	163	8
JOHN SUTHERLAND DR @ RICHMOND RD	26720	0.0288	8	5
JOHNSTON RD @ 65M W OF ALLANFORD AVE E	6921	0.0308	85	6
JOHNSTON RD @ TAPIOLA CRES E	7692	0.0268	130	26
JOHNSTON RD @ TAPIOLA CRES W	9721	0.0249	62	6
JOHNSTON RD @ ZAIDAN DR	8588	0.021	78	47
JOSHUA ST @ RENAUD RD	12524	0.026	94	2
KANATA AVE @ GOLDRIDGE DR/EVANSHEN PL	12372	0.0336	106	4
KARSH DR @ FARDON WAY/TOPLEY CRES E	1564	0.0776	69	7
KATIMAVIK RD @ CURRAN ST/DAVIS AVE	8464	0.059	54	1
KATIMAVIK RD @ MCGIBBON DR/SEWELL WAY	8990	0.0476	137	0
KATIMAVIK RD @ MCGIBBON DR/SEWELL WAY	8293	0.0413	133	11
KELLY FARM DR @ LEITRIM RD	16898	0.0677	0	0
KENASTON ST @ MICHAEL ST	5223	0.0784	10	11
KENDER AVE @ OGILVIE RD	4049	0.013	283	109
KENDER AVE @ OGILVIE RD	4904	0.0254	343	32
KENNEVALE DR @ MERNER AVE	4671	0.0347	40	1
KENT ST @ MACLAREN ST	16745	0.0264	1411	23
KENT ST @ QUEEN ST	23534	0.0446	14655	107
KENT ST @ SLATER ST	29308	0.0387	15701	76
KILBORN AVE @ FEATHERSTON DR/ROSEGLEN PRIV	7347	0.0277	332	175
KILBORN AVE @ KILBORN PL/LAMIRA ST	9566	0.0262	357	35
KIMPTON DR @ OVERLAND DR	1687	0.0204	57	27
KINBURN SIDE RD @ LIMESTONE RD	1367	0.0935	0	0
KINBURN SIDE RD @ MOHRS RD	1374	0.0823	0	0
KINBURN SIDE RD @ TORBOLTON RIDGE RD	1386	0.0969	0	0
KING EDWARD AVE @ OSGOOD ST/THOMAS MORE PRIV	19613	0.0531	5994	30
KING EDWARD AVE @ TEMPLETON ST	19728	0.0496	5535	15
KING EDWARD AVE @ WILBROD ST	16791	0.0214	2776	34
KINGSMERE AVE @ LENESTER AVE	2927	0.0224	105	49
BYRON AVE @ KENSINGTON AVE	7462	0.0101	51	61
BYRON AVE @ REDWOOD AVE	3148	0.0165	337	262
BYRON AVE @ ROOSEVELT AVE	6891	0.0156	575	15
BYRON AVE @ TWEEDSMUIR AVE	7516	0.0114	164	11
BYRON AVE @ WINDERMERE AVE	2837	0.0108	204	279
CADBORO RD @ OGILVIE RD	30587	0.021	431	42

CAHILL DR @ PLANTE DR	949	0.1209	339	91
CAHILL DR @ ROSEGARDEN CRES W	2220	0.0709	68	16
CAHILL DR @ SOUTHPORT DR	3417	0.0547	121	6
CAMBIE RD / MOUNT NEBO WAY @ RALPH HENNESSY AVE	3346	0.1666	26	0
CAMBRIAN RD @ KILBIRNIE DR/TUCANA WAY	11417	0.0338	225	1
CAMBRIAN RD @ RIVER MIST RD	11051	0.0526	436	14
CAMPBELL CROFT RD @ DALMENY RD	2079	0.0858	1	0
CAMPEAU DR @ PALLADIUM DR	6809	0.1011	27	1
CANAAN RD @ REGIONAL RD 174	22457	0.0381	0	0
CANON SMITH DR @ FITZROY ST	597	0.0412	5	0
CANON SMITH DR @ GALETTA SIDE RD	1625	0.0535	0	4
CANOTEK RD @ SHEFFORD RD	19225	0.0349	134	2
CANYON WALK DR @ EARL ARMSTRONG RD	21146	0.036	34	1
CAPITAL DR @ GRENFELL CRES	1752	0.0748	29	31
CARINA CRES W @ HALF MOON BAY	1319	0.0331	20	0
CARLING AVE @ CARLINGWOOD SC	27704	0.0412	343	2
CARLING AVE @ CRYSTAL BEACH DR	18255	0.0173	88	150
CARLING AVE @ FISHER AVE	35237	0.0263	149	23
CARLING AVE @ HARE AVE	25400	0.0248	59	2
CARLING AVE @ LEBRETON ST	25239	0.0233	454	194
CARLING AVE @ MAPLECREST AVE	27212	0.0244	59	20
CARLING AVE @ SCHNEIDER RD	12299	0.0223	11	5
CARLING AVE @ TRANSITWAY - LINCOLN FIE	26476	0.046	275	9
CARLINGWOOD SC @ WOODROFFE AVE	21327	0.028	113	4
CARP RD @ DONALD B. MUNRO DR	5743	0.0331	102	4
CARP RD @ GALETTA SIDE RD	2653	0.0513	1	3
CARP RD @ JUANITA AVE	3104	0.0243	26	8
CARP RD @ KINBURN SIDE RD	2783	0.0795	0	0
CARP RD @ MCGEE SIDE RD	6605	0.0794	0	4
CARP RD @ RICHARDSON SIDE RD	17824	0.1189	1	2
CARP RD @ ROTHBOURNE RD	22130	0.047	11	4
CARP RD/HWY 417 CARP IC144R63 @ HWY 417 CARP I	23753	0.0952	0	0
CARRIERE ST @ MICHAELSEM ST	2228	0.0245	47	13
CARSONBY RD @ FIRST LINE RD	1565	0.0806	0	0
CARSONBY RD @ FOURTH LINE RD	1743	0.063	0	0
CARSONBY RD @ PRINCE OF WALES DR	4260	0.0396	0	1
CARSON'S RD @ CHARLESWOOD AVE	2057	0.0629	536	14
CARTIER ST @ SOMERSET ST	8019	0.0527	3219	192
CARTOGRAPHE ST @ MISHAWASKODE ST	861	0.0324	91	7
CASSIDY RD @ GRANGEMILL AVE	3750	0.031	0	1
CASSON WAY @ VARLEY DR	3531	0.0274	125	16
CASTOR RD @ GREGOIRE RD	1079	0.0726	0	0
CATHCART ST @ KING EDWARD AVE NB	44740	0.0726	196	16
CATHCART ST @ KING EDWARD AVE SB/MACDONALD-CAR	44899	0.0718	453	23

CAVAN ST @ CHATELAIN AVE	1828	0.1733	44	2
CEDARHILL DR N @ CEDARVIEW RD	8061	0.0136	0	0
CEDAROW CRT @ HAZELDEAN RD	25110	0.0369	54	51
CEDARVIEW RD @ WEST HUNT CLUB RD	50303	0.0298	0	3
CEDARVIEW RD @ WOODSIA AVE	8258	0.0093	2	1
CENTREPOINTE DR @ PASEO PRIV	12312	0.0155	274	10
CENTURY RD @ MALAKOFF RD	1510	0.0923	0	0
CENTURY RD @ PRINCE OF WALES DR	5482	0.0451	0	1
CENTURY RD E @ SECOND LINE RD E	1307	0.0728	1	2
CHAMBERLAIN AVE @ GLENDALE AVE	12671	0.036	61	8
CHAMBERLAIN AVE @ PERCY ST	12853	0.0367	524	265
CHAPEL ST @ SOMERSET ST	3633	0.0591	1609	143
CHAPEL ST @ STEWART ST	3039	0.0232	957	125
CHAPMAN BLVD @ OTHELLO AVE	3329	0.0525	177	37
CHARLEMAGNE BLVD @ PRINCESS LOUISE DR W/VALADE	13790	0.0346	146	1
CHARLES ST @ CRICHTON ST	1526	0.073	88	11
CHARLOTTE ST @ RIDEAU ST	10868	0.0333	464	13
CHEVRIER ST @ TRENT ST	1540	0.0106	44	18
CHRISTCRAFT WAY S @ TRESTLE ST	967	0.0729	82	2
CHURCHILL AVE @ DOVERCOURT AVE	12363	0.0477	458	179
CHURCHILL AVE @ LANARK AVE	2684	0.0483	122	62
CHURCHILL AVE @ RAVENHILL AVE	10756	0.0376	417	218
CHURCHILL AVE @ RICHMOND RD	22142	0.0306	2839	391
CHURCHILL AVE @ SCOTT ST	10534	0.0502	698	614
CHURCHILL AVE @ WORKMAN AVE	4036	0.041	153	83
CLARE ST @ EVERED AVE W	2532	0.0654	217	259
CLAYMOR AVE @ MEADOWLANDS DR	14286	0.0196	332	6
CLAYMOR AVE @ MEADOWLANDS DR	10968	0.0315	725	151
CLAYMOR AVE @ NORMANDY CRES	790	0.0685	33	3
CLEARVIEW AVE @ ISLAND PARK DR	16418	0.0103	138	478
CLEGG ST @ COLONEL BY DR	13954	0.0045	237	678

Appendix F

Drive-Thru Operation



- LEGEND**
- SURVEY MONUMENT FOUND
 - SURVEY MONUMENT SET
 - SHORT STANDARD IRON BAR
 - CONCRETE PIN
 - PLASTIC BAR
 - CUT CROSS
 - WITNESS
 - MEAS
 - P1
 - P2
 - P3
 - JDB
 - AOG
 - G METER
 - HW
 - BOL
 - SV
 - CS
 - DSICB
 - H
 - WW
 - HT
 - LS
 - PED
 -
 - FO —
 - ST —
 - S —
 - W —
 - G —
 - OH —
 - UB —
 - CB —
 - ROW LINE
 - PROPERTY LINE
 - EX. CONC. CURB
 - NEW CONC. CURB
 - NEW CURB CUT/DEPRESSED CURB
 - ▲ MAIN ENTRANCE
 - ▲ ALTERNATE ENTRANCE
 - ▲ EMPLOYEE ONLY ACCESS POINTS
 - ▲ NEW YARD LIGHT
 - LIGHT DUTY ASPHALT
 - HEAVY DUTY CONCRETE
 - LIGHT DUTY CONCRETE
 - HEAVY DUTY ASPHALT
 - STEEL BOLLARD (SEE DWG. C9.1 & C9.4B)
 - MAGNETIC BOLLARD (SEE DWGS. C9.4A&B)
 - RUBBER BASE BOLLARD (SEE DWGS. C9.4A&B)



Chick-fil-A
5200 Buffington Road
Atlanta, Georgia 30349-2998

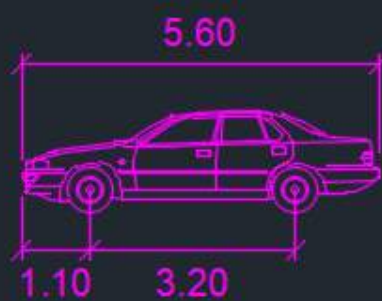
exp Services Inc.
E: +1.905.793.8800 | F: +1.905.793.0641
1585 Clark Boulevard
Brampton, ON L6T 4V1
Canada
www.exp.com



- BUILDINGS • EARTH & ENVIRONMENT • ENERGY •
- INDUSTRIAL • INFRASTRUCTURE • SUSTAINABILITY

Disclaimer: exp Services Inc.
This file is being supplied as a matter of courtesy and is no way to be taken as appurtenant to, associated with or in placement of copies of the officially signed and sealed documents. The data is provided "as is" without a warranty of any kind either expressed or implied. This file does not include a professional engineer's stamp on the drawing, and only print copies of drawings with signed stamps are to be considered as true and final as issued by our office. Thank you.

APPENDIX F



P

	meters
Width	2.00
Track	2.00
Lock to Lock Time	6.0
Steering Angle	35.9



January 16, 2025

To Whom It May Concern:

Our client is honored to provide their guests with the highest level of hospitality and care, whether they choose to dine in with them or to utilize their outdoor guest service option. The site on Innes Road has been designed with that end in mind, while taking into account the safety and comfort of their team members and guests, and the convenience of other guests visiting other retailers at the plaza. In consideration of the proposed restaurant located in Orleans at 4270 Innes Road, I would like to offer a description of our client's service model for outdoor guest service.

Guests and Third-Party Order Aggregators (DoorDash, UberEats, Skip-the-Dishes) who choose to pick-up food using their outdoor guest service option will enter into a double-lane drive thru at approximately the southwest corner of the development parcel. At that point, they will enter under a double-lane Order Point Canopy which spans both queue lines. The canopy features urban design elements while functionally providing weather protection for their guests and team members taking orders from their guests, face-to-face. The canopy is equipped with canopy mounted radiant gas heaters, electric fans, and energy efficient lighting to provide comfort, weather protection, and security. During peak hours, staff at this canopy are equipped with secure handheld electronic devices to greet guests and assist them with their orders. During non-peak hours, the drive-thru lanes are equipped with stationary order points which allow team members inside the restaurant to assist guests with placing their orders using an intercom system.

After orders are taken, vehicles proceed counterclockwise around the west side of the building, away from pedestrian traffic in the plaza and dine-in guests while their meals are being prepared. This site orientation helps to segregate vehicular traffic from pedestrians and minimizes impact on adjacent tenants. As vehicles circle past the northwest corner of the building, they will enter an urban inspired, similarly equipped, double-lane Meal Delivery Canopy. The Meal Delivery Canopy provides the same protection to guests and team member order expeditors who can hand deliver meals to guests in their vehicles on the west side of the building. The canopy provides protection to approximately 6 cars at a time, giving team members the ability to serve multiple guests simultaneously, thereby improving efficiency and ensuring the highest food quality. Team members serving guests at the Meal Delivery Zone are able to enter and exit the building through a service door on the west side of the building.

Team members serving guests in their drive-thru are proven to be well protected by the clearly designated vehicular signage, and magnetic bollards. Their dress code requires team members serving guests outside the building to wear high visibility vests and other clothing intended to call attention to their presence.

Our client has proven success with this delivery model at a number of their restaurants throughout the United States in the northeast and midwestern United States with similar climates, as well, as in Kitchener, Windsor, Oshawa, Vaughan, Cambridge, Barrie, Burlington, London, Orillia, Kanata, and Newmarket Ontario Canada.

We look forward to serving the residents and communities in Orleans, Ontario for many years to come.

Regards,

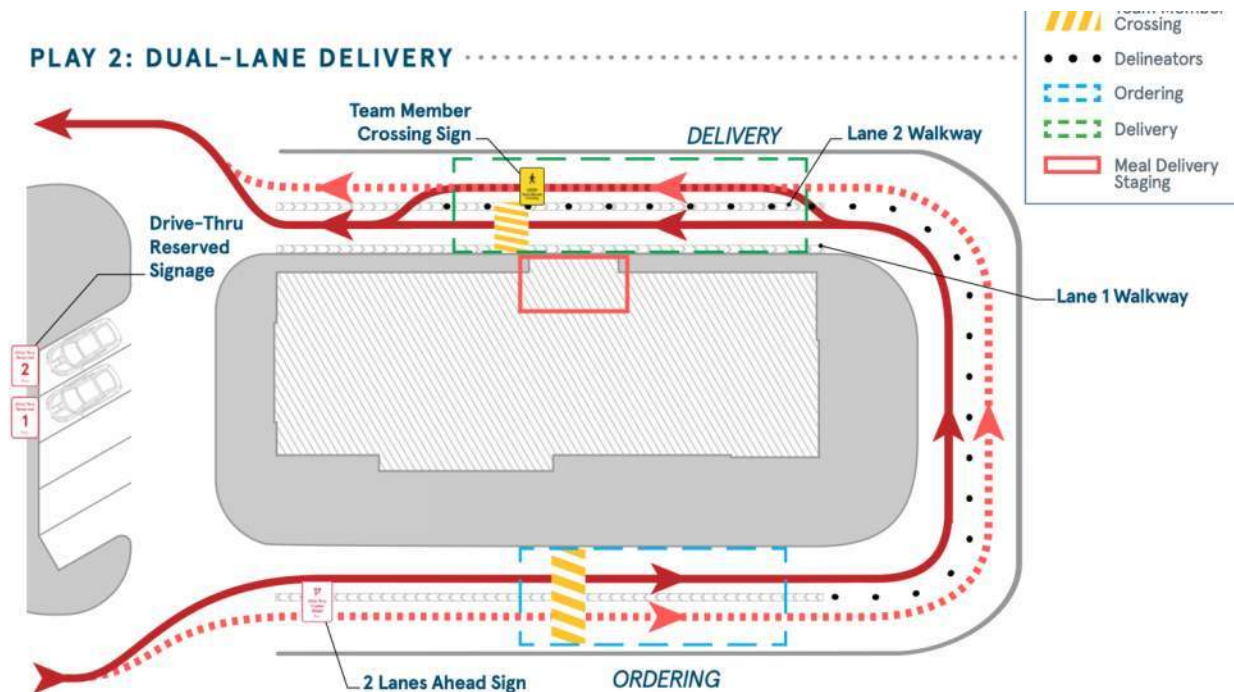
A handwritten signature in blue ink, appearing to read 'John Sousa', is written over a light blue horizontal line.

John Sousa
Sr. Project Manager/Architectural Designer
Central Ontario Infrastructure

Dual Flex Lane Operational Considerations

Design Intent

The purpose of Dual Flex Lanes is to provide a flexible solution that can be leveraged to optimize current restaurant needs while providing future capacity for meal delivery when a restaurant is producing meals at such a high rate that they need to be delivered to more cars faster.

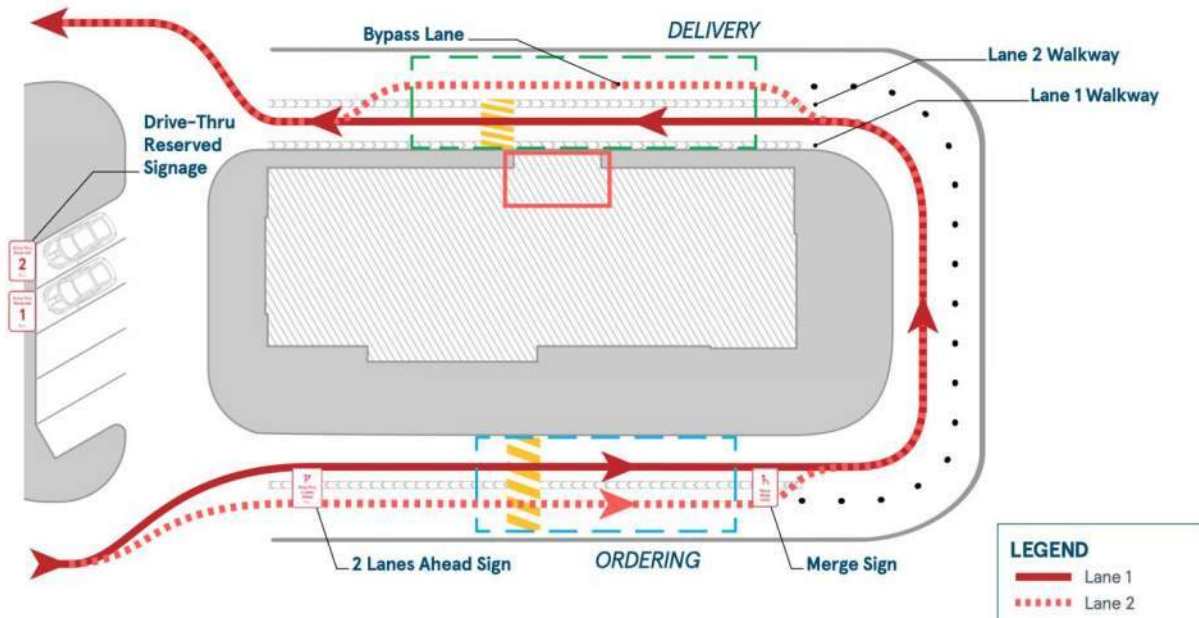


Current State

It is important to understand that just because you have received Dual Flex Lanes that **you do not have to fill both lanes with cars**. Most restaurants would benefit from leveraging the flexibility of the design and merge the two lanes after Order Taking and using the outside lane as a Bypass Lane.

A Bypass Lane is where one lane is used for meal delivery, closest to the building, where the space of the outside lane is used for cars that have already received their meal to drive around any cars stopped in front of them and still exit the Drive-Thru.

PLAY 1: SINGLE-LANE DELIVERY WITH BYPASS LANE



Recommendations and Considerations

- *A strong and consistent system using a Bypass Lane is needed as a base in which to build to successful Dual Lane Fulfillment.*
- How many meals (food + drink) are consistently ready at a given time?
 - Single Meal Delivery with a bypass is recommended if it is common to have 3-4 meals always ready.
 - Dual Lane Delivery is best considered when a minimum of 5-6 meals are consistently ready or if a restaurant is averaging over 200 cars an hour.
- When leveraging Dual Lane Meal Delivery, a minimum of 3-4 Outside Expeditors are recommended to maximize utilization of the two lanes.
- Parking cars remains critical to help SOS and throughput and is even more so when delivering to two lanes.
- The outside lane may not match throughput of the inside lane due to travel distance of the second lane.
- Establish your safety plan to cross lanes for Meal Delivery. A best practice is for Outside Expeditors delivering to the outside lane to cross back and behind the lead car on the inside lane.

Additional questions around Dual Flex Lane maximization? Set up a time to speak with the Customer Throughput Consulting Team [here](#).

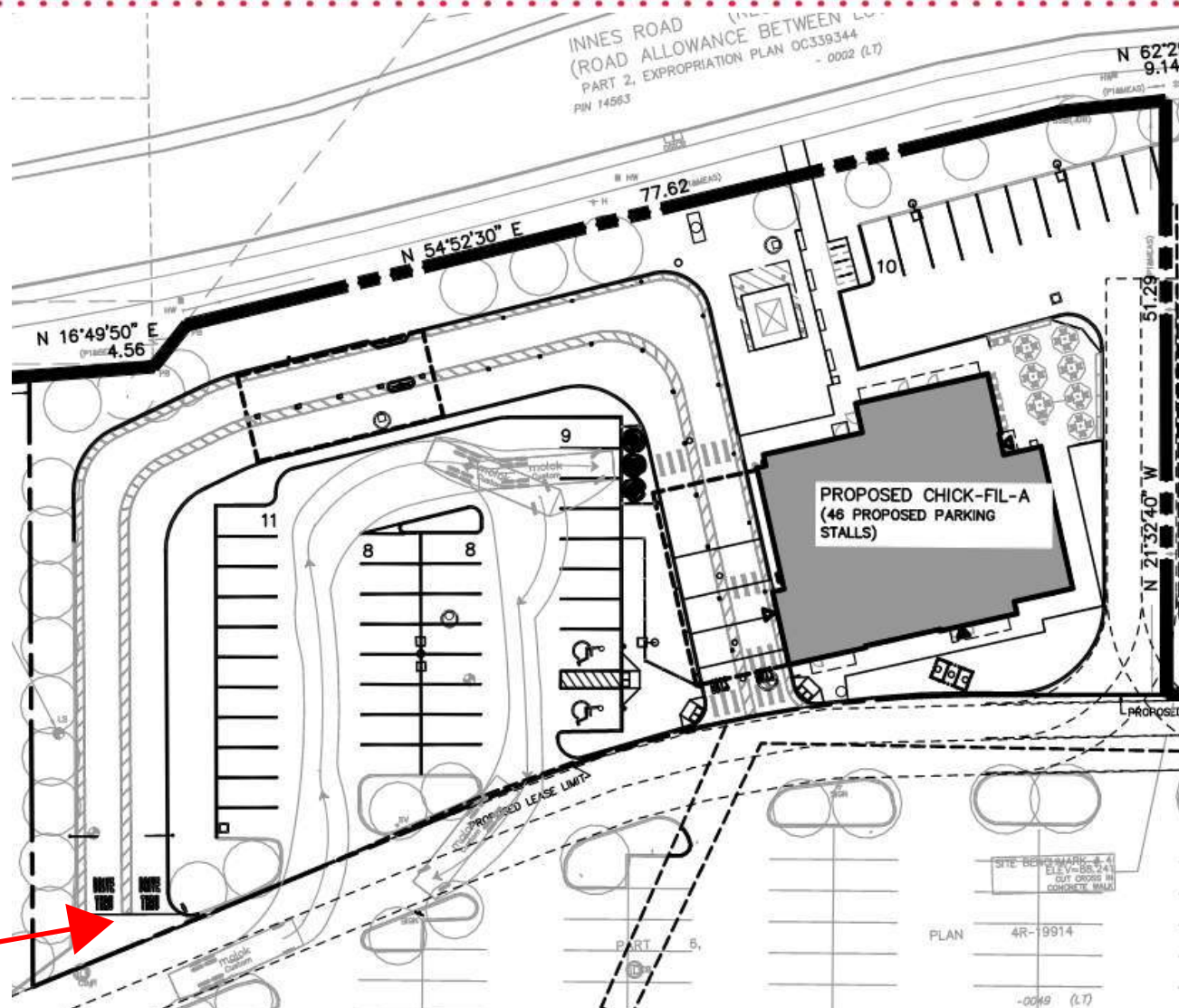
CHICK-FIL-A SITE PLAN APPLICATION SUBMISSION

Orleans, ON.
January 16, 2025





SITE PLAN OVERVIEW



START



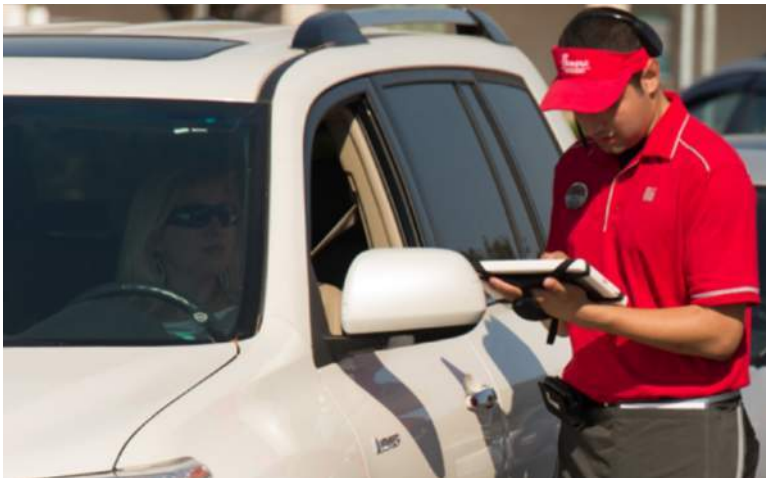


APPROACH TO ORDER POINT CANOPY





FACE-TO-FACE ORDERING



WEATHER PROTECTION FOR TEAM MEMBERS AND GUESTS





GUEST PAYMENT OPTIONS



Flexible Cash



QR Code Check-In





MEAL DELIVERY ZONE





-
- A 3D perspective view of a car wash facility. The facility has a long, covered structure with a roof. A car is shown entering from the left. Yellow bollards are positioned along the entrance and exit paths. A worker in a high-visibility vest is standing near the entrance. A yellow lane is marked on the ground. Callouts 1a, 1b, 2a, 2b, 2c, 2d, and 3 are present, indicating specific components or areas of interest.



TEAM MEMBER SAFETY ELEMENTS



Meal Delivery Canopies



Signage

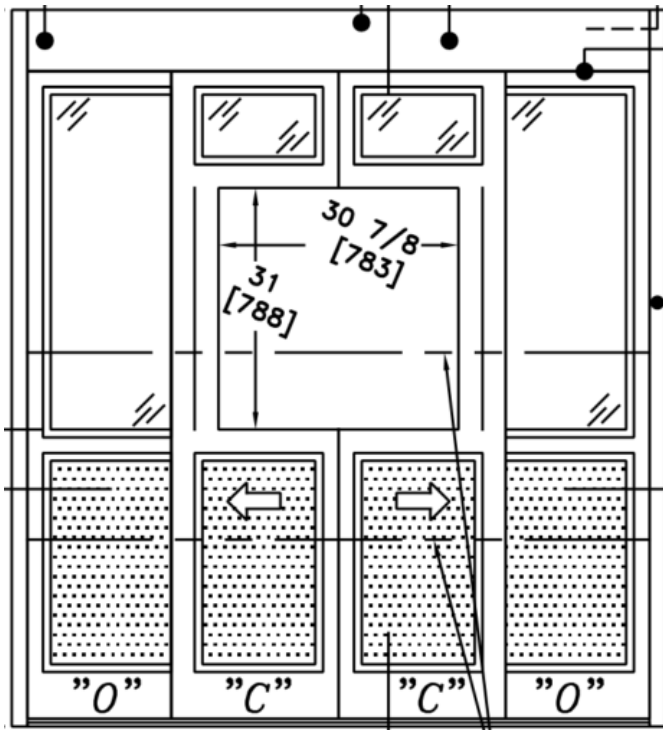


Visibility Straps





DRIVE-THRU DOOR FLEXIBILITY



- Door can be used as a traditional drive-thru window during non-peak hours
- Can be used as a Team Member service door during peak service hours





OUTSIDE MEAL DELIVERY



Appendix G

Detailed Multi-Modal Level of Service (MMLoS) Analysis – Road Segment

Multi-Modal Level of Service - Segment Form

Consultant EXP

Project BRM-23002042-H0

Date 4/16/2025

Appendix G

SEGMENT		INNES ROAD
Pedestrian	Sidewalk Width	2.0m or more
	Boulevard Width	1.5m
	Average Daily Curb Lane Traffic Volume	> 3000 vpd
	On-street Parking	No
	Operating Speed	60km/h
	Level of Service	E
	Target	C
Cyclist	Road Classification	Arterial
	Bike Route Classification	N/A
	Type of Bikeway	On Road Bike Lane
	Travel Lanes	1
	Centerline Markings	No
	Operating Speed	60km/h
	Level of Service	C
	Target	B
Transit	Facility Type	Mixed Traffic
	Friction/Congestion/Incident Potential	Limited
	Level of Service	D
	Target	D
Truck	Lane Width	3.5m
	Travel Lanes	2
	Level of Service	A
	Target	N/A

Appendix H

TDM Infrastructure Checklist

TDM-Supportive Development Design and Infrastructure Checklist: *Non-Residential Developments (office, institutional, retail or industrial)*

Legend	
REQUIRED	The Official Plan or Zoning By-law provides related guidance that must be followed
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
1. WALKING & CYCLING: ROUTES		
1.1 Building location & access points		
BASIC	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	☒
BASIC	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	☒
BASIC	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	☒
1.2 Facilities for walking & cycling		
REQUIRED	1.2.1 Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations (<i>see Official Plan policy 4.3.3</i>)	☒
REQUIRED	1.2.2 Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible (<i>see Official Plan policy 4.3.12</i>)	☒

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3 Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas from vehicle areas, and provide marked pedestrian crosswalks at intersection sidewalks (<i>see Official Plan policy 4.3.10</i>)	☒
REQUIRED	1.2.4 Make sidewalks and open space areas easily accessible through features such as gradual grade transition, depressed curbs at street corners and convenient access to extra-wide parking spaces and ramps (<i>see Official Plan policy 4.3.10</i>)	☒
REQUIRED	1.2.5 Include adequately spaced inter-block/street cycling and pedestrian connections to facilitate travel by active transportation. Provide links to the existing or planned network of public sidewalks, multi-use pathways and on-road cycle routes. Where public sidewalks and multi-use pathways intersect with roads, consider providing traffic control devices to give priority to cyclists and pedestrians (<i>see Official Plan policy 4.3.11</i>)	☒
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☐
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☐
BASIC	1.2.8 Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
1.3 Amenities for walking & cycling		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☒
BASIC	1.3.2 Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☒

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
2. WALKING & CYCLING: END-OF-TRIP FACILITIES		
2.1 Bicycle parking		
REQUIRED	2.1.1 Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible (<i>see Official Plan policy 4.3.6</i>)	☒
REQUIRED	2.1.2 Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas (<i>see Zoning By-law Section 111</i>)	☒
REQUIRED	2.1.3 Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored (<i>see Zoning By-law Section 111</i>)	☒
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met), plus the expected peak number of customer/visitor cyclists	☒
BETTER	2.1.5 Provide bicycle parking spaces equivalent to the expected number of commuter and customer/visitor cyclists, plus an additional buffer (e.g. 25 percent extra) to encourage other cyclists and ensure adequate capacity in peak cycling season	☐
2.2 Secure bicycle parking		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single office building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers (<i>see Zoning By-law Section 111</i>)	☒
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to the expected number of commuter cyclists (assuming the cycling mode share target is met)	☐
2.3 Shower & change facilities		
BASIC	2.3.1 Provide shower and change facilities for the use of active commuters	☐
BETTER	2.3.2 In addition to shower and change facilities, provide dedicated lockers, grooming stations, drying racks and laundry facilities for the use of active commuters	☐
2.4 Bicycle repair station		
BETTER	2.4.1 Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
3. TRANSIT		
3.1 Customer amenities		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2 Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐
4. RIDESHARING		
4.1 Pick-up & drop-off facilities		
BASIC	4.1.1 Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
4.2 Carpool parking		
BASIC	4.2.1 Provide signed parking spaces for carpools in a priority location close to a major building entrance, sufficient in number to accommodate the mode share target for carpools	☐
BETTER	4.2.2 At large developments, provide spaces for carpools in a separate, access-controlled parking area to simplify enforcement	☐
5. CARSHARING & BIKESHARING		
5.1 Carshare parking spaces		
BETTER	5.1.1 Provide carshare parking spaces in permitted non-residential zones, occupying either required or provided parking spaces (<i>see Zoning By-law Section 94</i>)	☐
5.2 Bikeshare station location		
BETTER	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐

TDM-supportive design & infrastructure measures: <i>Non-residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
6. PARKING		
6.1 Number of parking spaces		
REQUIRED	6.1.1 Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☒
BASIC	6.1.2 Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (<i>see Zoning By-law Section 104</i>)	☐
BETTER	6.1.4 Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking (<i>see Zoning By-law Section 111</i>)	☐
6.2 Separate long-term & short-term parking areas		
BETTER	6.2.1 Separate short-term and long-term parking areas using signage or physical barriers, to permit access controls and simplify enforcement (i.e. to discourage employees from parking in visitor spaces, and vice versa)	☐
7. OTHER		
7.1 On-site amenities to minimize off-site trips		
BETTER	7.1.1 Provide on-site amenities to minimize mid-day or mid-commute errands	☐

TDM Measures Checklist:

Non-Residential Developments (office, institutional, retail or industrial)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☒ The coordinator will distribute transit info, manage ride-matching sign-ups, and report annually on TDM uptake.
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances	☒ Maps will highlight routes to nearby bus stops, bike paths along Innes Road, and key destinations like Place d'Orléans.
2.2 Bicycle skills training		
<i>Commuter travel</i>		
BETTER ★	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
2.3 Valet bike parking		
<i>Visitor travel</i>		
BETTER	2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances	☒ Schedules for OC Transpo Routes 25, 138, or others along Innes Road will be posted at main entrances.
BASIC	3.1.2 Provide online links to OC Transpo and STO information	☒ Online links (QR code) to OC Transpo and STO websites will be embedded in the display map.
BETTER	3.1.3 Provide real-time arrival information display at entrances	☐
3.2 Transit fare incentives		
<i>Commuter travel</i>		
BETTER	3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit	☒ Preloaded PRESTO cards with \$20 value will be offered to the employees upon the start of their work.
BETTER ★	3.2.2 Subsidize or reimburse monthly transit pass purchases by employees	☐
<i>Visitor travel</i>		
BETTER	3.2.3 Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐
3.3 Enhanced public transit service		
<i>Commuter travel</i>		
BETTER	3.3.1 Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐
<i>Visitor travel</i>		
BETTER	3.3.2 Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐
3.4 Private transit service		
<i>Commuter travel</i>		
BETTER	3.4.1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐
<i>Visitor travel</i>		
BETTER	3.4.2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐

TDM measures: <i>Non-residential developments</i>			Check if proposed & add descriptions
4. RIDESHARING			
4.1 Ridematching service			
<i>Commuter travel</i>			
BASIC	★	4.1.1 Provide a dedicated ridematching portal at OttawaRideMatch.com	☒ Sign-up instructions for OttawaRideMatch.com will be included in welcome packages and posted in common areas.
4.2 Carpool parking price incentives			
<i>Commuter travel</i>			
BETTER		4.2.1 Provide discounts on parking costs for registered carpools	☐
4.3 Vanpool service			
<i>Commuter travel</i>			
BETTER		4.3.1 Provide a vanpooling service for long-distance commuters	☐
5. CARSHARING & BIKESHARING			
5.1 Bikeshare stations & memberships			
BETTER		5.1.1 Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐
<i>Commuter travel</i>			
BETTER		5.1.2 Provide employees with bikeshare memberships for local business travel	☐
5.2 Carshare vehicles & memberships			
<i>Commuter travel</i>			
BETTER		5.2.1 Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐
BETTER		5.2.2 Provide employees with carshare memberships for local business travel	☐
6. PARKING			
6.1 Priced parking			
<i>Commuter travel</i>			
BASIC	★	6.1.1 Charge for long-term parking (daily, weekly, monthly)	☐
BASIC		6.1.2 Unbundle parking cost from lease rates at multi-tenant sites	☐
<i>Visitor travel</i>			
BETTER		6.1.3 Charge for short-term parking (hourly)	☐

TDM measures: <i>Non-residential developments</i>			Check if proposed & add descriptions
7. TDM MARKETING & COMMUNICATIONS			
7.1 Multimodal travel information			
<i>Commuter travel</i>			
BASIC	★	7.1.1 Provide a multimodal travel option information package to new/relocating employees and students	☒ The package will include a welcome letter, local transit maps, cycling routes, OttawaRideMatch.com info, and PRESTO card details.
<i>Visitor travel</i>			
BETTER	★	7.1.2 Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	☐
7.2 Personalized trip planning			
<i>Commuter travel</i>			
BETTER	★	7.2.1 Offer personalized trip planning to new/relocating employees	☐
7.3 Promotions			
<i>Commuter travel</i>			
BETTER		7.3.1 Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	☐
8. OTHER INCENTIVES & AMENITIES			
8.1 Emergency ride home			
<i>Commuter travel</i>			
BETTER	★	8.1.1 Provide emergency ride home service to non-driving commuters	☐
8.2 Alternative work arrangements			
<i>Commuter travel</i>			
BASIC	★	8.2.1 Encourage flexible work hours	☐
BETTER		8.2.2 Encourage compressed workweeks	☐
BETTER	★	8.2.3 Encourage telework	☐
8.3 Local business travel options			
<i>Commuter travel</i>			
BASIC	★	8.3.1 Provide local business travel options that minimize the need for employees to bring a personal car to work	☐
8.4 Commuter incentives			
<i>Commuter travel</i>			
BETTER		8.4.1 Offer employees a taxable, mode-neutral commuting allowance	☐
8.5 On-site amenities			
<i>Commuter travel</i>			
BETTER		8.5.1 Provide on-site amenities/services to minimize mid-day or mid-commute errands	☐

TDM Measures Checklist:

Non-Residential Developments (office, institutional, retail or industrial)

Legend	
BASIC	The measure is generally feasible and effective, and in most cases would benefit the development and its users
BETTER	The measure could maximize support for users of sustainable modes, and optimize development performance
★	The measure is one of the most dependably effective tools to encourage the use of sustainable modes

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
1. TDM PROGRAM MANAGEMENT		
1.1 Program coordinator		
BASIC ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	☒ The coordinator will distribute transit info, manage ride-matching sign-ups, and report annually on TDM uptake.
1.2 Travel surveys		
BETTER	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	☐
2. WALKING AND CYCLING		
2.1 Information on walking/cycling routes & destinations		
BASIC	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances	☒ Maps will highlight routes to nearby bus stops, bike paths along Innes Road, and key destinations like Place d'Orléans.
2.2 Bicycle skills training		
<i>Commuter travel</i>		
BETTER ★	2.2.1 Offer on-site cycling courses for commuters, or subsidize off-site courses	☐
2.3 Valet bike parking		
<i>Visitor travel</i>		
BETTER	2.3.1 Offer secure valet bike parking during public events when demand exceeds fixed supply (e.g. for festivals, concerts, games)	☐

TDM measures: <i>Non-residential developments</i>		Check if proposed & add descriptions
3. TRANSIT		
3.1 Transit information		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances	☒ Schedules for OC Transpo Routes 25, 138, or others along Innes Road will be posted at main entrances.
BASIC	3.1.2 Provide online links to OC Transpo and STO information	☒ Online links (QR code) to OC Transpo and STO websites will be embedded in the display map.
BETTER	3.1.3 Provide real-time arrival information display at entrances	☐
3.2 Transit fare incentives		
<i>Commuter travel</i>		
BETTER	3.2.1 Offer preloaded PRESTO cards to encourage commuters to use transit	☒ Preloaded PRESTO cards with \$20 value will be offered to the employees upon the start of their work.
BETTER ★	3.2.2 Subsidize or reimburse monthly transit pass purchases by employees	☐
<i>Visitor travel</i>		
BETTER	3.2.3 Arrange inclusion of same-day transit fare in price of tickets (e.g. for festivals, concerts, games)	☐
3.3 Enhanced public transit service		
<i>Commuter travel</i>		
BETTER	3.3.1 Contract with OC Transpo to provide enhanced transit services (e.g. for shift changes, weekends)	☐
<i>Visitor travel</i>		
BETTER	3.3.2 Contract with OC Transpo to provide enhanced transit services (e.g. for festivals, concerts, games)	☐
3.4 Private transit service		
<i>Commuter travel</i>		
BETTER	3.4.1 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for shift changes, weekends)	☐
<i>Visitor travel</i>		
BETTER	3.4.2 Provide shuttle service when OC Transpo cannot offer sufficient quality or capacity to serve demand (e.g. for festivals, concerts, games)	☐

TDM measures: <i>Non-residential developments</i>			Check if proposed & add descriptions
4. RIDESHARING			
4.1 Ridematching service			
<i>Commuter travel</i>			
BASIC	★	4.1.1 Provide a dedicated ridematching portal at OttawaRideMatch.com	☒ Sign-up instructions for OttawaRideMatch.com will be included in welcome packages and posted in common areas.
4.2 Carpool parking price incentives			
<i>Commuter travel</i>			
BETTER		4.2.1 Provide discounts on parking costs for registered carpools	☐
4.3 Vanpool service			
<i>Commuter travel</i>			
BETTER		4.3.1 Provide a vanpooling service for long-distance commuters	☐
5. CARSHARING & BIKESHARING			
5.1 Bikeshare stations & memberships			
BETTER		5.1.1 Contract with provider to install on-site bikeshare station for use by commuters and visitors	☐
<i>Commuter travel</i>			
BETTER		5.1.2 Provide employees with bikeshare memberships for local business travel	☐
5.2 Carshare vehicles & memberships			
<i>Commuter travel</i>			
BETTER		5.2.1 Contract with provider to install on-site carshare vehicles and promote their use by tenants	☐
BETTER		5.2.2 Provide employees with carshare memberships for local business travel	☐
6. PARKING			
6.1 Priced parking			
<i>Commuter travel</i>			
BASIC	★	6.1.1 Charge for long-term parking (daily, weekly, monthly)	☐
BASIC		6.1.2 Unbundle parking cost from lease rates at multi-tenant sites	☐
<i>Visitor travel</i>			
BETTER		6.1.3 Charge for short-term parking (hourly)	☐

TDM measures: <i>Non-residential developments</i>			Check if proposed & add descriptions
7. TDM MARKETING & COMMUNICATIONS			
7.1 Multimodal travel information			
<i>Commuter travel</i>			
BASIC	★	7.1.1 Provide a multimodal travel option information package to new/relocating employees and students	☒ The package will include a welcome letter, local transit maps, cycling routes, OttawaRideMatch.com info, and PRESTO card details.
<i>Visitor travel</i>			
BETTER	★	7.1.2 Include multimodal travel option information in invitations or advertising that attract visitors or customers (e.g. for festivals, concerts, games)	☐
7.2 Personalized trip planning			
<i>Commuter travel</i>			
BETTER	★	7.2.1 Offer personalized trip planning to new/relocating employees	☐
7.3 Promotions			
<i>Commuter travel</i>			
BETTER		7.3.1 Deliver promotions and incentives to maintain awareness, build understanding, and encourage trial of sustainable modes	☐
8. OTHER INCENTIVES & AMENITIES			
8.1 Emergency ride home			
<i>Commuter travel</i>			
BETTER	★	8.1.1 Provide emergency ride home service to non-driving commuters	☐
8.2 Alternative work arrangements			
<i>Commuter travel</i>			
BASIC	★	8.2.1 Encourage flexible work hours	☐
BETTER		8.2.2 Encourage compressed workweeks	☐
BETTER	★	8.2.3 Encourage telework	☐
8.3 Local business travel options			
<i>Commuter travel</i>			
BASIC	★	8.3.1 Provide local business travel options that minimize the need for employees to bring a personal car to work	☐
8.4 Commuter incentives			
<i>Commuter travel</i>			
BETTER		8.4.1 Offer employees a taxable, mode-neutral commuting allowance	☐
8.5 On-site amenities			
<i>Commuter travel</i>			
BETTER		8.5.1 Provide on-site amenities/services to minimize mid-day or mid-commute errands	☐

Appendix I

Detailed Multi-Modal Level of Service (MMLoS) Analysis – Intersection

Appendix I

INTERSECTION		INNES ROAD & JEANNES d'ARC BOULEVARD / MER-BLEUE ROAD				INNES ROAD & TRINITY CROSSING MALL ACCESS			INNES ROAD & PRESTWICK DRIVE/LANTHIER DRIVE				INNES ROAD & TENTH LINE ROAD				
		Crossing Side	North Leg	South Leg	East Leg	West Leg	South Leg	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg	North Leg	South Leg	East Leg	West Leg
Pedestrian	Total Travel Lanes Crossed		8	8	7	7	5	5	5	3	4	5	6	8	8	7	8
	Median		No median	No median	No median	No median	No median	No median	No median	No median	No median	No median	No median	No median	No median	No median	No median
	Left Turn Type		Protected	Protected	Protected/permissive	Protected/permissive	Protected	Protected/permissive	Permissive	Permissive	Permissive	Permissive	Protected/permissive	Protected	Protected	Protected	Protected
	Right Turn Conflict		Yield control	Yield control	Yield control	Yield control	Yield control	N/A	Yield control	Yield control	Yield control	Yield control	Yield control	Yield control	Yield control	Yield control	Yield control
	Right turn on Red (RTOR)		Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed	Allowed
	Leading Pedestrian Interval		No	No	No	No	No	No	No	No	No	Yes	Yes	No	No	No	No
	Corner Radius (largest)		10 to 15m	10 to 15m	10 to 15m	10 to 15m	10 to 15m	-	15 to 25m	10 to 15m	10 to 15m	10 to 15m	15 to 25m	10 to 15m	10 to 15m	10 to 15m	10 to 15m
	Right turn channel		Yes	Yes	Yes	Yes	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	Crosswalk Treatment		Zebra marking	Standard	Zebra marking	Zebra marking	Standard	Standard	Standard	Standard	Standard	Zebra marking	Zebra marking	Standard	Standard	Standard	Standard
	PETSI Score		3	0	3	3	49	52	39	74	57	44	27	0	0	16	0
Level of Service		F	F	F	F	D	D	E	C	D	E	F	F	F	F	F	
Target			C				C			C				C			
Cyclist	Type of Bikeway		Pocket Bike Lane	Pocket Bike	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Mixed Traffic	Mixed Traffic	Pocket Bike Lane	Pocket Bike Lane	Pocket Bike	Pocket Bike	Pocket Bike	Pocket Bike
	Left Turn Lane Configuration		2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥40 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥40 km/h	2 or more lanes crossed, ≥40 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h	2 or more lanes crossed, ≥50 km/h
	Right Turn Lane Configuration		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Turning Speed of Right Turning Vehicles		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Operating Speed on Approach		60 km/h	60 km/h	60 km/h	60 km/h	40 km/h	60 km/h	60 km/h	40 km/h	40 km/h	60 km/h	60 km/h	60 km/h	60 km/h	60 km/h	60 km/h
	Level of Service		F	F	F	F	D	F	F	D	D	F	F	F	F	F	F
Target			B				B			B				B			
Transit	Average Signal Delay (2025 Background)		> 40 sec	> 40 sec	≤ 40 sec	> 40 sec	> 40 sec	≤ 10 sec	≤ 10 sec	≤ 30 sec	≤ 30 sec	≤ 10 sec	≤ 20 sec	> 40 sec	≤ 40 sec	> 40 sec	≤ 40 sec
	Average Signal Delay (2030 Background)		> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	≤ 10 sec	≤ 10 sec	≤ 30 sec	≤ 30 sec	≤ 10 sec	≤ 30 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec
	Average Signal Delay (2025 Total)		> 40 sec	> 40 sec	≤ 40 sec	> 40 sec	> 40 sec	≤ 10 sec	≤ 10 sec	≤ 30 sec	≤ 30 sec	≤ 10 sec	≤ 20 sec	> 40 sec	≤ 40 sec	> 40 sec	≤ 40 sec
	Average Signal Delay (2030 Total)		> 40 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec	≤ 10 sec	≤ 20 sec	≤ 30 sec	≤ 30 sec	≤ 10 sec	≤ 30 sec	> 40 sec	> 40 sec	> 40 sec	> 40 sec
	Level of Service		F	F	F	F	F	B	C	D	D	B	D	F	F	F	F
Target			C				C			C				C			
Truck	Effective Corner Radius		> 15 m	> 15 m	> 15 m	> 15 m	10 to 15 m	-	> 15 m	10 to 15 m	10 to 15 m	10 to 15 m	> 15 m	> 15 m	> 15 m	> 15 m	> 15 m
	Number of Receiving Lanes		2	2	2	2	1	-	2	1	1	2	2	2	2	2	2
	Level of Service		A	A	A	A	E	-	A	E	E	B	A	A	A	A	A
Target			D				D			D				D			