



# **267 O'Connor Street**

## **Transportation Impact Assessment (TIA) Report**

**FINAL**

**December 2025**



## **TIA Plan Reports**

On 14 June 2017, the Council of the City of Ottawa adopted new Transportation Impact Assessment (TIA) Guidelines. In adopting the guidelines, Council established a requirement for those preparing and delivering transportation impact assessments and reports to sign a letter of certification.

Individuals submitting TIA reports will be responsible for all aspects of development-related transportation assessment and reporting, and undertaking such work, in accordance and compliance with the City of Ottawa's Official Plan, the Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines.

By submitting the attached TIA report (and any associated documents) and signing this document, the individual acknowledges that s/he meets the four criteria listed below.

### **CERTIFICATION**

1. I have reviewed and have a sound understanding of the objectives, needs and requirements of the City of Ottawa's Official Plan, Transportation Master Plan and the Transportation Impact Assessment (2017) Guidelines;
2. I have a sound knowledge of industry standard practice with respect to the preparation of transportation impact assessment reports, including multi modal level of service review;
3. I have substantial experience (more than 5 years) in undertaking and delivering transportation impact studies (analysis, reporting and geometric design) with strong background knowledge in transportation planning, engineering or traffic operations; and
4. I am either a licensed<sup>1</sup> or registered<sup>2</sup> professional in good standing, whose field of expertise [check ☒ appropriate field(s)] is either transportation engineering ☒ or transportation planning ☐.

**1,2 License of registration body that oversees the profession is required to have a code of conduct and ethics guidelines that will ensure appropriate conduct and representation for transportation planning and/or transportation engineering works.**

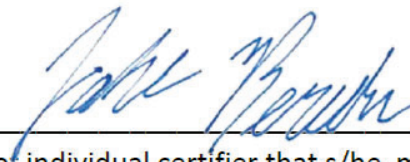
City Of Ottawa  
Infrastructure Services and Community  
Sustainability  
Planning and Growth Management  
110 Laurier Avenue West, 4th fl.  
Ottawa, ON K1P 1J1  
Tel. : 613-580-2424  
Fax: 613-560-6006

Ville d'Ottawa  
Services d'infrastructure et Viabilité des  
collectivités  
Urbanisme et Gestion de la croissance  
110, avenue Laurier Ouest  
Ottawa (Ontario) K1P 1J1  
Tél. : 613-580-2424  
Télécopieur: 613-560-6006

Dated at Ottawa this 21 day of November, 2025.  
(City)

Name: Jake Berube  
(Please Print)

Professional Title: Transportation Engineer

  
Signature of individual certifier that s/he meets the above criteria

<b>Office Contact Information (Please Print)</b>
Address: 1223 Michael Street North, Suite 100
City / Postal Code: Ottawa, Ontario, K1J 7T2
Telephone / Extension: 613-738-4160
E-Mail Address: jake.berube@parsons.com



267 O'Connor Street

# Transportation Impact Assessment (TIA) Report

prepared for:

Taggart Realty Management  
225 Metcalfe Street, Suite 708  
Ottawa, ON  
K2P 1P9

prepared by:



1223 Michael Street North  
Suite 100  
Ottawa, ON K1J 7T2

December 2, 2025

477191-01000

---

## DOCUMENT CONTROL PAGE

<b>CLIENT:</b>	Taggart Realty Management
<b>PROJECT NAME:</b>	267 O'Connor Street
<b>REPORT TITLE:</b>	TIA Strategy Report
<b>PARSONS PROJECT NO:</b>	477191 - 01000
<b>APPLICATION TYPE:</b>	Zoning By-Law Amendment (ZBLA) and Official Plan Amendment (OPA) Application
<b>VERSION:</b>	Draft
<b>DIGITAL MASTER:</b>	\\XCCAN57FS01\Data\ISO\477191\1000\DOCS\6 - Strategy Revised - 2\267 O'Connor TIA Report - Nov 2025.docx
<b>ORIGINATOR</b>	Basel Ansari, P.Eng.
<b>REVIEWER:</b>	Jake Berube, P.Eng.
<b>AUTHORIZATION:</b>	
<b>CIRCULATION LIST:</b>	Wally Dubyk – Transportation Project Manager
<b>HISTORY:</b>	<ul style="list-style-type: none"><li>• TIA Step 1 Screening Form – June 2019</li><li>• TIA Step 2 Scoping Report – June 2019</li><li>• TIA Step 3 Forecasting Report – June 2019</li><li>• TIA Step 4 Strategy Report – August 18, 2020</li><li>• TIA Step 3 Strategy Report Revised – February 4, 2025</li><li>• TIA Step 3 Strategy Report Revision #2– December 01, 2025</li></ul>

# TABLE OF CONTENTS

1.0	SCREENING FORM .....	4
2.0	SCOPING REPORT .....	4
2.1.	EXISTING AND PLANNED CONDITIONS .....	4
2.1.1.	PROPOSED DEVELOPMENT.....	4
2.1.2.	EXISTING CONDITIONS.....	7
2.1.3.	PLANNED CONDITIONS .....	16
2.2.	STUDY AREA AND TIME PERIODS.....	18
2.3.	EXEMPTION REVIEW .....	19
3.0	FORECASTING .....	20
3.1.	DEVELOPMENT GENERATED TRAVEL DEMAND .....	20
3.1.1.	TRIP GENERATION AND MODE SHARES.....	20
3.1.2.	TRIP DISTRIBUTION AND ASSIGNMENT .....	21
3.2.	BACKGROUND NETWORK TRAFFIC.....	24
3.3.	DEMAND RATIONALIZATION.....	24
4.0	ANALYSIS .....	25
4.1.	DEVELOPMENT DESIGN.....	25
4.1.1.	DESIGN FOR SUSTAINABLE MODES.....	25
4.1.2.	CIRCULATION AND ACCESS.....	25
4.1.3.	NEW STREET NETWORKS .....	25
4.2.	PARKING .....	25
4.3.	BOUNDARY STREET DESIGN.....	26
4.4.	ACCESS INTERSECTION DESIGN.....	27
4.5.	TRANSPORTATION DEMAND MANAGEMENT.....	28
4.5.1.	CONTEXT FOR TDM .....	28
4.5.2.	NEED AND OPPORTUNITY .....	28
4.5.3.	TDM PROGRAM.....	28
4.6.	NEIGHBOURHOOD TRAFFIC MANAGEMENT .....	29
4.7.	TRANSIT .....	29
4.8.	REVIEW OF NETWORK CONCEPT .....	29
4.9.	INTERSECTION DESIGN.....	29
5.0	FINDINGS, CONCLUSIONS AND RECOMMENDATIONS.....	29

## LIST OF FIGURES

FIGURE 1:	EXISTING BUILDING LAND USES .....	4
FIGURE 2:	LOCAL CONTEXT .....	5
FIGURE 3:	PROPOSED CONCEPT PLAN (NOVEMBER 2025).....	6
FIGURE 4:	AREA TRANSIT NETWORK.....	12
FIGURE 5:	BUS STOP LOCATIONS.....	12
FIGURE 6:	EXISTING PEAK HOUR VEHICLE TRAFFIC VOLUMES – AM (PM) PEAK HOUR .....	14
FIGURE 7:	EXISTING PEAK HOUR ACTIVE TRANSPORT VOLUMES .....	15
FIGURE 8:	CENTRAL AND EAST DOWNTOWN CORE CHARACTER AREAS .....	17
FIGURE 9:	ADJACENT FUTURE DEVELOPMENTS .....	18
FIGURE 10:	PROPOSED STUDY AREA AND INTERSECTIONS .....	19

FIGURE 11: PROPOSED DEVELOPMENT SITE-GENERATED VEHICLE TRIPS – AM (PM) PEAK HOUR .....	22
FIGURE 12: EXISTING DEVELOPMENT SITE-GENERATED VEHICLE TRIPS – AM (PM) PEAK HOUR.....	23
FIGURE 13: 'NET' SITE-GENERATED VEHICLE TRIPS – AM (PM) PEAK HOUR .....	24

## LIST OF TABLES

TABLE 1: EXEMPTIONS REVIEW SUMMARY.....	19
TABLE 2: HIGH-RISE RESIDENTIAL TRIP RATES.....	20
TABLE 3: HIGH-RISE RESIDENTIAL PEAK PERIOD PERSON TRIP GENERATION – TWO WAY .....	20
TABLE 4: HIGH-RISE RESIDENTIAL MODE SHARES BREAKDOWN.....	20
TABLE 5: PEAK PERIOD TO PEAK HOUR CONVERSION FACTORS (2020 TRANS MANUAL) .....	21
TABLE 6: HIGH-RISE RESIDENTIAL PEAK HOUR TRIP GENERATION .....	21
TABLE 7: NET NEW SITE-GENERATED VEHICLE TRIPS.....	21
TABLE 8: MMLOS – BOUNDARY STREET SEGMENTS EXISTING AND FUTURE CONDITIONS .....	27

## LIST OF APPENDICES

APPENDIX A: TIA SCREENING FORM AND SITE PLAN
APPENDIX B: TRAFFIC COUNT DATA
APPENDIX C: OC TRANSPO BUS ROUTE MAPS
APPENDIX D: COLLISION ANALYSIS
APPENDIX E: TDM CHECKLISTS
APPENDIX F: MMLOS ROAD SEGMENT ANALYSIS

# TRANSPORTATION IMPACT ASSESSMENT REPORT

Parsons has been retained by Taggart Realty Management to prepare a TIA Report in support of a Zoning By-Law Amendment (ZBLA) and Official Plan Amendment (OPA) Application for the proposed residential buildings development at 267 O'Connor Street. This document follows the TIA process as outlined in the City of Ottawa Transportation Impact Assessment (TIA) Guidelines (2017) and Revisions (2023). The following report represents Step 4 – TIA Report. This report addresses comments from City of Ottawa staff comments on the April 2025 Feedback Form.

## 1.0 SCREENING FORM

The Trip Generation Trigger was met based on the development size, and the Safety Trigger was met based on the proposed site driveway's proximity to the signalized O'Connor/MacLaren intersection. The Location Trigger was not met. The Screening Form is provided in **Appendix A**.

## 2.0 SCOPING REPORT

### 2.1. Existing and Planned Conditions

#### 2.1.1. Proposed Development

The site is located at 267 O'Connor Street and currently zoned as R4UD[479]. The site is currently occupied by a 6-storey commercial building and a surface parking lot. The existing building uses are illustrated in **Figure 1**, which currently consists mostly of an office use, with additional uses such as a physiotherapy centre, a medical supply store and a restaurant on the first floor. The surface lot can serve as general purpose parking in the downtown core.

Figure 1: Existing Building Land Uses



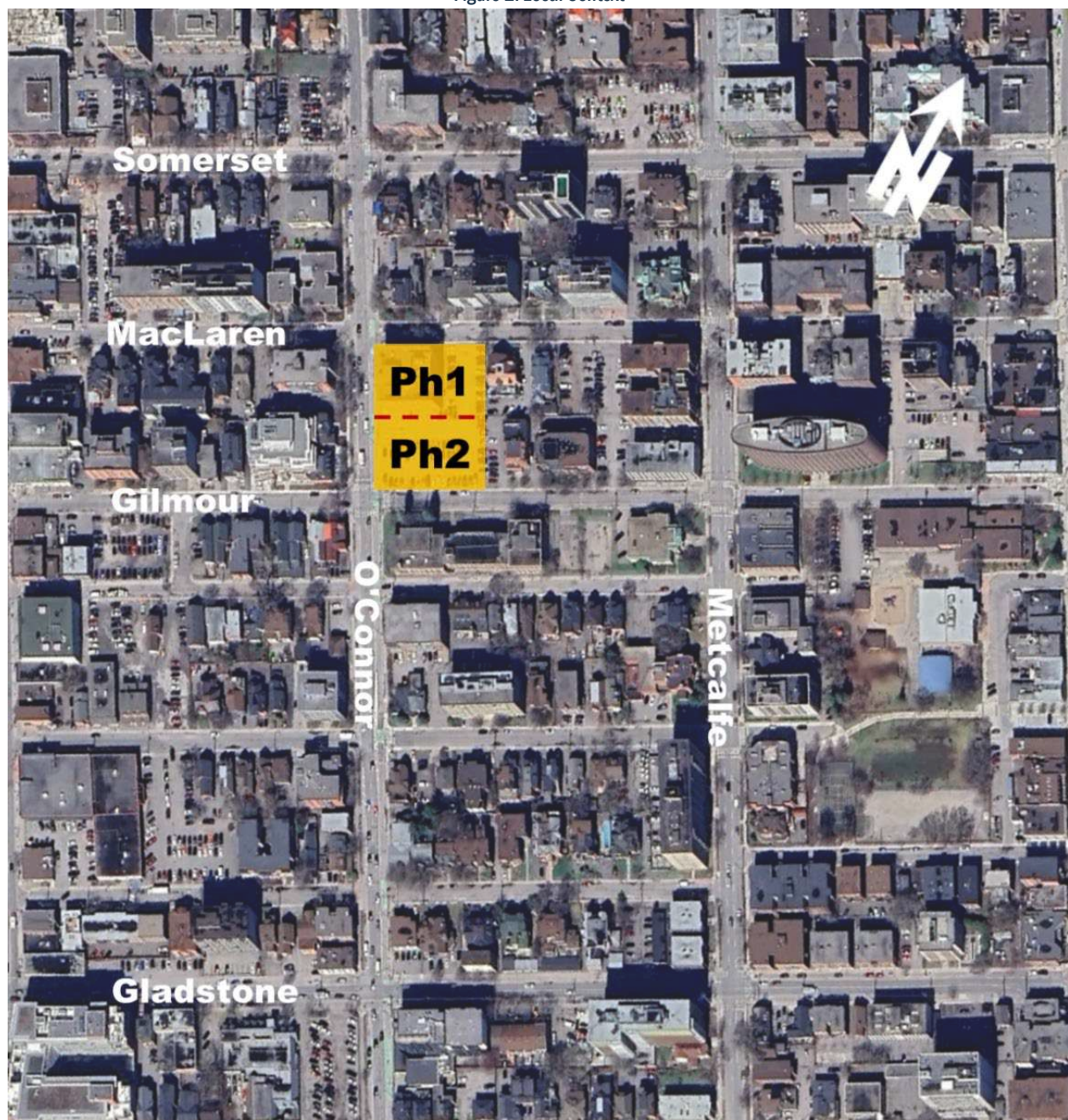
The local site context is illustrated in **Figure 2**, while the proposed site concept plan is illustrated in **Figure 3** (high quality plan in **Appendix A**). The proposed development will replace the existing building and surface parking with two high-rise residential apartment buildings with a total of approximately 513 units (27 and 25-storey). The development consists of two phases, with development of the first phase to occur within the next 5 years. For the purposes of the analysis within this TIA, full buildout has been assumed for the 2032 horizon.



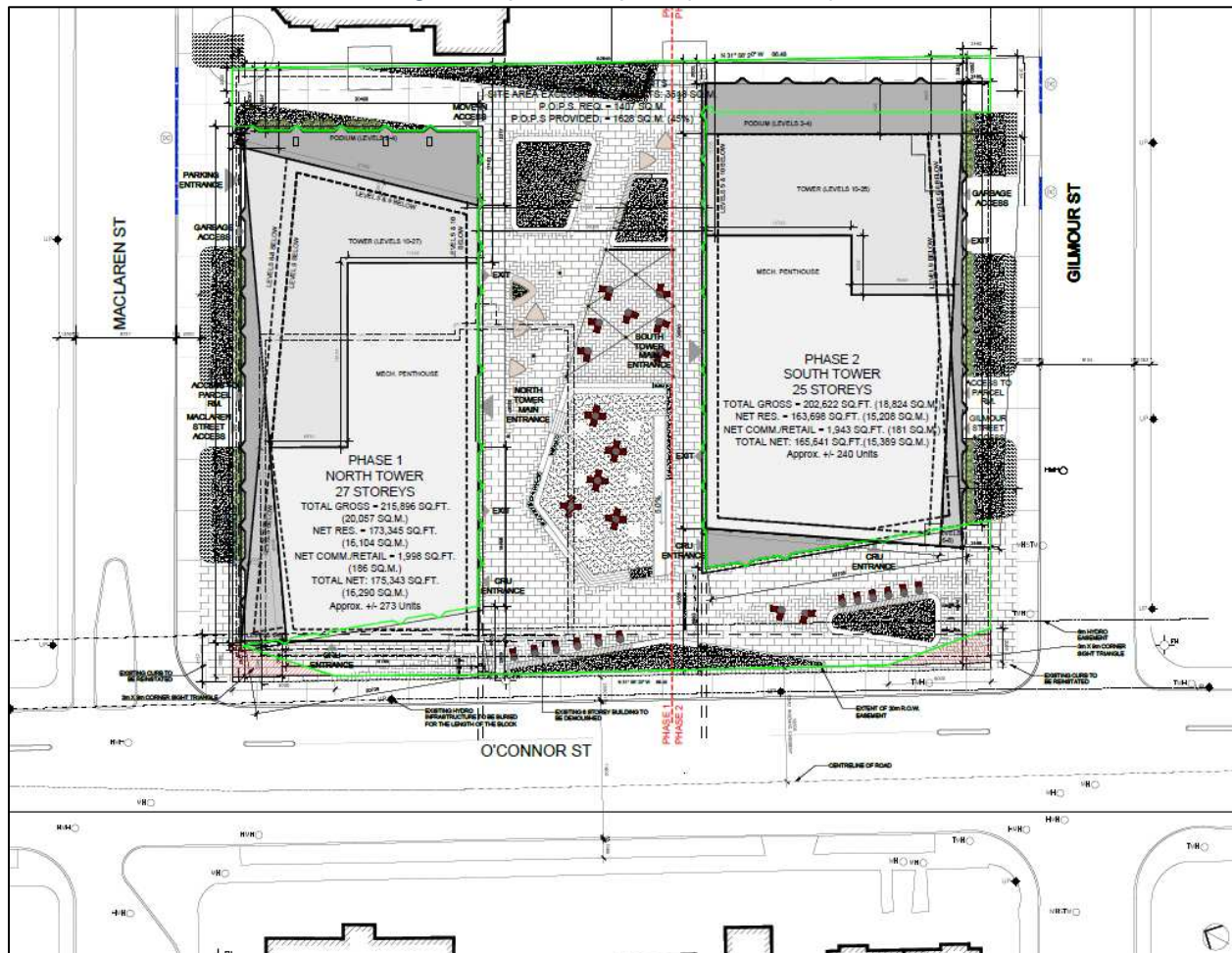
Phase 1 will include the 27-storey building in the north portion of the site with approximately 273 residential units and 1,998 ft<sup>2</sup> of ground-floor commercial space. Phase 2 will include the 25-storey building in the south portion of the site with approximately 240 residential units and an additional 1,943 ft<sup>2</sup> ground-floor commercial space. The two buildings will be connected in the underground parking levels.

A total of 319 parking spaces (267 residential and 52 visitor spaces) are proposed in a 4-level underground parking garage with 514 bicycle parking spaces (1:1 Bike Parking ratio) located underground and at ground level. Access to the underground parking will be provided via a two-way ramp access on MacLaren Street.

Figure 2: Local Context



**Figure 3: Proposed Concept Plan (November 2025)**





### 2.1.2. Existing Conditions

#### Area Road Network

A description for each road within the study area included in the TIA has been provided below.

**O'Connor Street** is a one-way southbound arterial roadway, which extends from Wellington Street in the north to Isabella Street in the south. South of Isabella Street, O'Connor Street continues as a local roadway to Fifth Avenue. Within the study area, O'Connor Street has a two-lane cross section with on-street parking provided along the west side of the roadway with a 2-hour limit from 8am to 5:30pm. There is a bi-directional cycle track along the east side of the roadway. The speed limit is assumed to be 50 km/h. Based on the Official Plan Schedule C16, O'Connor Street has a protected Right-of-Way (ROW) of 20m, with maximum land requirement of 0.9m at property frontage.

**Metcalf Street** is a one-way northbound arterial roadway which extends from Wellington Street in the north to Isabella Street in the south. South of Isabella Street, Metcalf Street continues as a local roadway to Monkland Avenue. Within the study area, Metcalf Street has a three-lane cross section with on-street parking provided along the east side of the roadway with a 2-hour limit from 9:00am to 3:30pm. The speed limit is assumed to be 50 km/h.

**Somerset Street** is an east-west arterial roadway which extends from Queen Elizabeth Driveway in the east to Garland Street in the west where it continues as Wellington Street W. Within the study area, Somerset Street has a two-lane cross section. The speed limit is assumed to be 50 km/h.

**Gladstone Avenue** is an east-west major collector roadway which extends from Parkdale Avenue in the west to Elgin Street in the east. East of Elgin Street, Gladstone Avenue continues as a local roadway to Cartier Street. Within the study area, Gladstone Avenue has a two-lane cross section with parking/loading bays provided on the north and south side of the roadway and a 2-hour parking limit between 7am and 7pm. The speed limit is assumed to be 50 km/h.

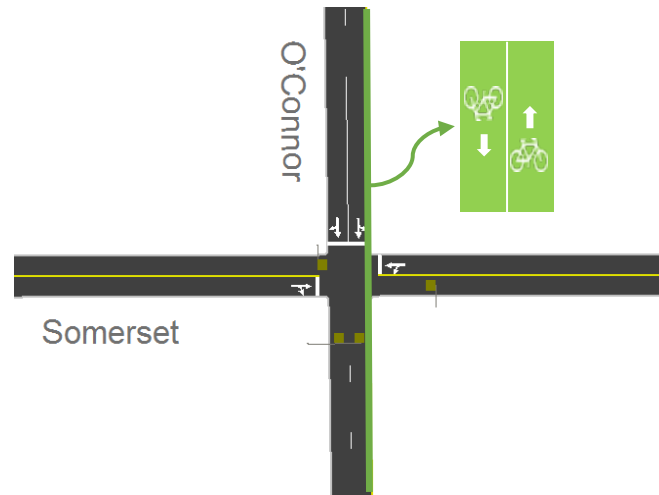
**MacLaren Street** is a one-way westbound local roadway that extends from MacDonald Street in the east to Bronson Avenue in the west. Within the study area, MacLaren Street has a two-lane cross section with parking provided on the north side of the roadway, with 2-hour limit between 7am and 7pm. The posted speed limit is 30 km/h.

**Gilmour Street** is a one-way eastbound local roadway that extends from Queen Elizabeth Driveway in the east to Bronson Avenue in the west. Within the study area, Gilmour Street has a two-lane cross section with parking provided on the north side of the roadway and a 2-hour parking limit between 7am and 7pm. The posted speed limit is 30 km/h.

## Existing Study Area Intersections

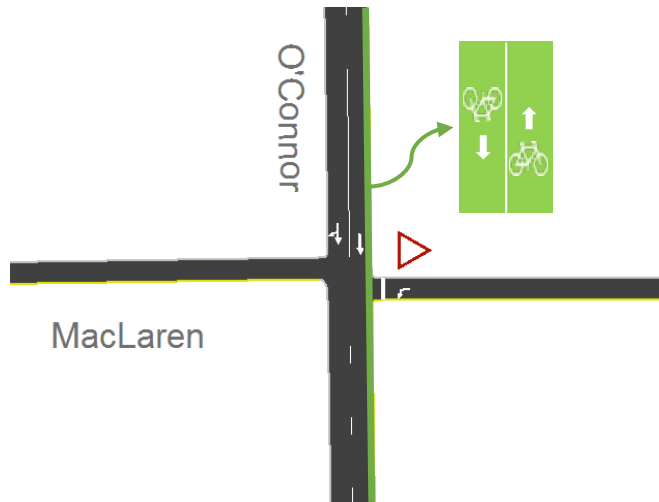
### Somerset/O'Connor

The Somerset/O'Connor intersection is a signalized four-legged intersection. Northbound movements are prohibited at this location as O'Connor Street operates as a one-way in the southbound direction. The eastbound approach consists of a shared through/right-turn lane. The westbound approach consists of a shared through/left-turn lane. The southbound approach consists of a shared through/right-turn lane and a shared through/left-turn lane. Signalized two-way bike lanes are available on the east side of O'Connor Street.



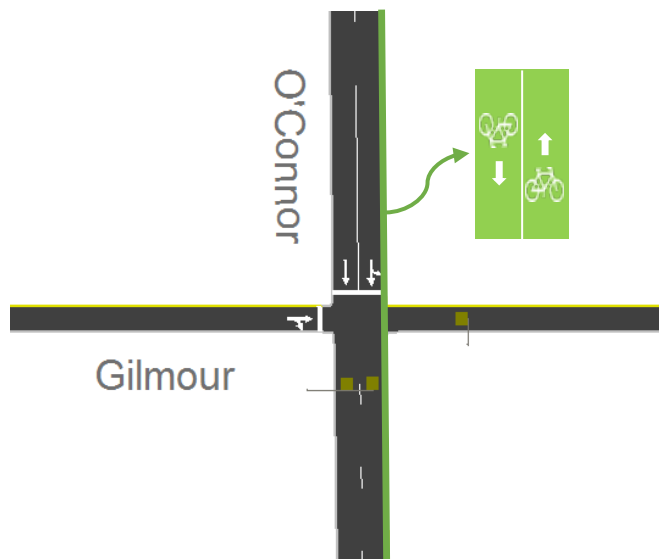
### MacLaren/O'Connor

The MacLaren/O'Connor intersection is an unsignalized four-legged intersection with STOP control on the minor approach (MacLaren Street). Westbound through movements are prohibited for vehicles along with northbound and eastbound as O'Connor Street operates as a one-way in the southbound direction and MacLaren Street operates as a one-way in the westbound direction. The southbound approach consists of a through lane and a shared through/right-turn lane. The westbound approach consists of a left-turn lane and a dedicated westbound through lane for bicycles only. Two-way bike lanes are provided on the east side of O'Connor Street.



### Gilmour/O'Connor

The Gilmour/O'Connor intersection is a signalized four-legged intersection. Northbound and westbound movements are prohibited at this location as O'Connor Street operates as a one-way in the southbound direction and Gilmour Street operates as a one-way in the eastbound direction. The eastbound approach consists of a shared through/right-turn lane. The southbound approach consists of a shared through/left-turn lane and a through lane. Signalized two-way bike lanes are available on the east side of O'Connor Street.



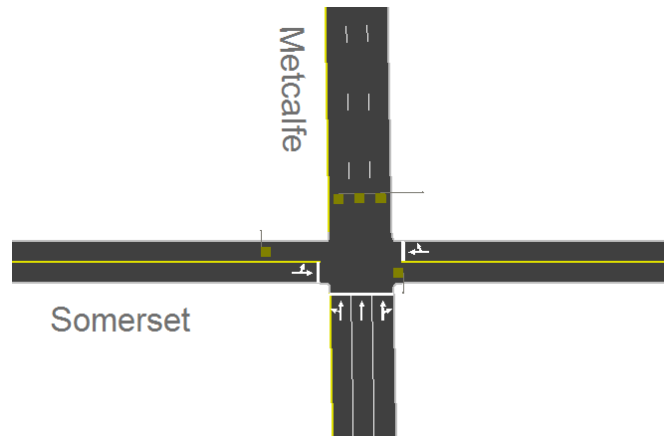
### Gladstone/O'Connor

The Gladstone/O'Connor intersection is a signalized four-legged intersection. Northbound movements are prohibited at this location as O'Connor Street operates as a one-way in the southbound direction. The eastbound approach consists of a shared through/right-turn lane. The westbound approach consists of a shared through/left-turn lane. The southbound approach consists of a shared through/right-turn lane and a shared through/left-turn lane. Signalized two-way bike lanes are available on the east side of O'Connor Street.



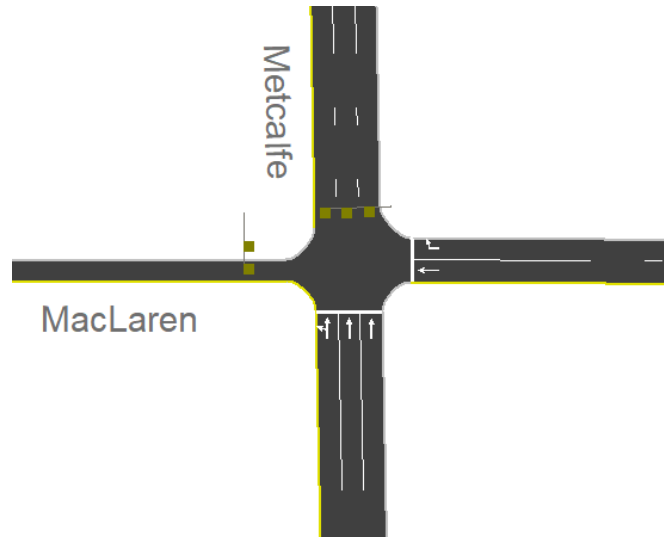
### Somerset/Metcalfe

The Somerset/Metcalfe intersection is a signalized four-legged intersection. Southbound movements are prohibited at this location as Metcalfe Street operates as a one-way in the northbound direction. The eastbound approach consists of a shared through/left-turn lane. The westbound approach consists of a shared through/right-turn lane. The northbound approach consists of a shared through/right-turn lane, a through lane and a shared through/left-turn lane.



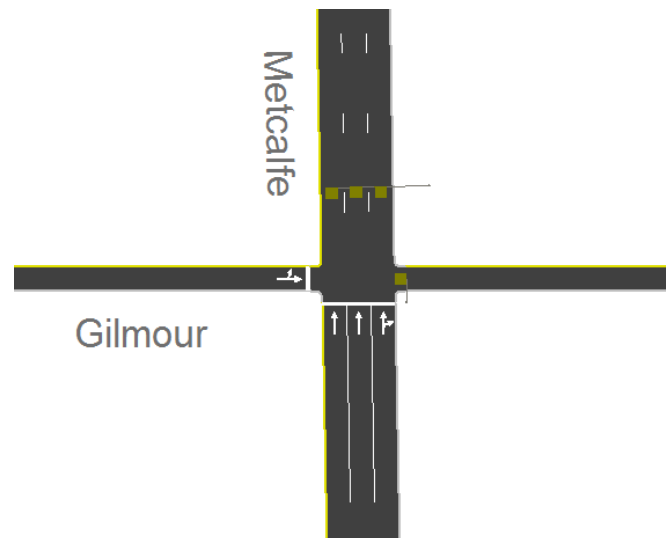
### MacLaren/Metcalfe

The MacLaren/Metcalfe intersection is a signalized four-legged intersection. Southbound and eastbound movements are prohibited at this location as Metcalfe Street operates as a one-way in the northbound direction and MacLaren Street operates as a one-way in the westbound direction. The westbound approach consists of a through lane and a right-turn lane. The northbound approach consists of a shared through/left-turn lane and two through lanes.



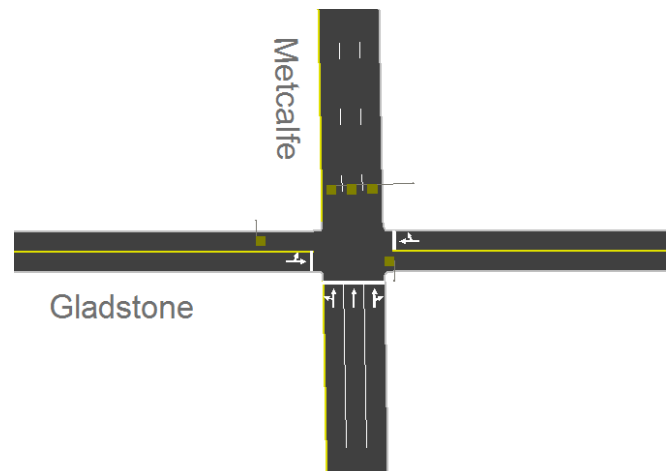
### Gilmour/Metcalf

The Gilmour/O'Connor intersection is a signalized four-legged intersection. Southbound and westbound movements are prohibited at this location as Metcalfe Street operates as a one-way in the southbound direction and Gilmour Street operates as a one-way in the eastbound direction. The eastbound approach consists of a shared through/left-turn lane. The northbound approach consists of a shared through/right-turn lane and two through lanes.



### Gladstone/Metcalf

The Gladstone/Metcalf intersection is a signalized four-legged intersection. Southbound movements are prohibited at this location as Metcalfe Street operates as a one-way in the northbound direction. The eastbound approach consists of a shared through/left-turn lane. The westbound approach consists of a shared through/right-turn lane. The northbound approach consists of a shared through/right-turn lane, a through lane and a shared through/left-turn lane.



### Existing Driveways to Adjacent Developments

On the north side of MacLaren Street, between O'Connor Street and Metcalfe Street, there are seven existing driveways to adjacent residential developments. On the south side, there are three accesses, where one is for a residential development, one is for a commercial surface parking lot and one is for an office building.

Along the north side of Gilmour Street, between O'Connor Street and Metcalfe Street, there are three existing driveways, where two serve as parking access to residential building and one serves a commercial use building. On the south side, there are two existing accesses, where one serves a residential building and the other serves a place of worship.

### Existing Area Traffic Management Measures

Existing area traffic management measures within the study area includes the following:

- An existing separated bi-directional bike-lane on the east side of O'Connor Street, with bike crossings at intersections and bike signals at signalized intersections.
- Zebra crosswalks on all legs of most signalized intersections within the study area, except O'Connor/Gladstone where standard traverse lines are used. Textured unit paver crossings are also provided on west and east sides of O'Connor/Somerset intersection.
- Westbound through restriction on MacLaren Street at the O'Connor Street intersection, with bikes excepted via a dedicated westbound bike lane.

- On-street parking on at least one side of most study area roads.
- One-way traffic operations on most roads in the study area.
- Reduced 30km/h speed limit on MacLaren Street and Gilmour Street.
- Speed humps at a number of locations along Gilmour Street, including two between O'Connor Street and Metcalfe Street.
- Speed humps on MacLaren Street west of O'Connor Street and east of Metcalfe Street.
- Intersection narrowing using curb extensions at the west leg of O'Connor/MacLaren and Metcalfe/Gilmour, and the west and east legs of Metcalfe/MacLaren.

### Existing Pedestrian/Cycling Network

With respect to pedestrians, sidewalk facilities in the vicinity of the site are provided along both sides of Gilmour Street, O'Connor Street, Metcalfe Street, MacLaren Street, Somerset Street, and Gladstone Avenue.

With respect to cycling, a bi-directional cycle track is provided on the east side of O'Connor Street. The City of Ottawa TMP classifies O'Connor Street as a Cross-Town Bikeway within the study area. Somerset Street, Gladstone Avenue, Bank Street (located west of O'Connor Street) and Elgin Street (located east of Metcalfe Street) are classified as suggested cycling routes.

### Transit Network

**Figure 4** below illustrates bus routes operating in the surrounding road network, while **Figure 5** illustrates the locations of nearby bus stops. The latest transit route maps from OC Transpo website are provided in **Appendix B**. Currently no bus routes operate along O'Connor Street, Metcalfe Street, MacLaren Street, Gilmour Street, or Somerset Street (east of Bank Street). Several bus routes along Bank Street, Elgin Street, Gladstone Avenue and Somerset Street (west of Bank Street). Bus routes in the study area include the following six routes:

- **Frequent Route #5 (Elmvale <-> Waller) and Local Route #14 (St. Laurent <-> Tunney's Pasture):** both operate along Elgin Street, with nearest bus stop at the intersection of Elgin/Gilmour within approximately 320m walking distance of the site.
- **Frequent Routes #6 (Greenboro <-> Rockcliffe) and #7 (Carleton <-> St. Laurent):** both operate along Bank Street, with nearest bus stop at Bank/Somerset within approximately 270m walking distance of site.
- **Frequent Route #11 (Parliament <-> Bayshore):** operates along Bank Street and Somerset Street, with nearest bus stop at Bank/Somerset within approximately 270m walking distance of site.
- **Frequent Route #14 (St. Laurent <-> Tunney's Pasture):** operates along Gladstone Avenue and Elgin Street, with nearest bus stop at O'Connor/Gladstone intersection within approximately 270m walking distance of site.

In addition to the bus routes described above, the LRT Line 1 (Tunney's Pasture <-> Blair) operates to the north, outside of the study area. The nearest LRT station is Parliament Station within an approximately 850m walking distance from the site.

Figure 4: Area Transit Network

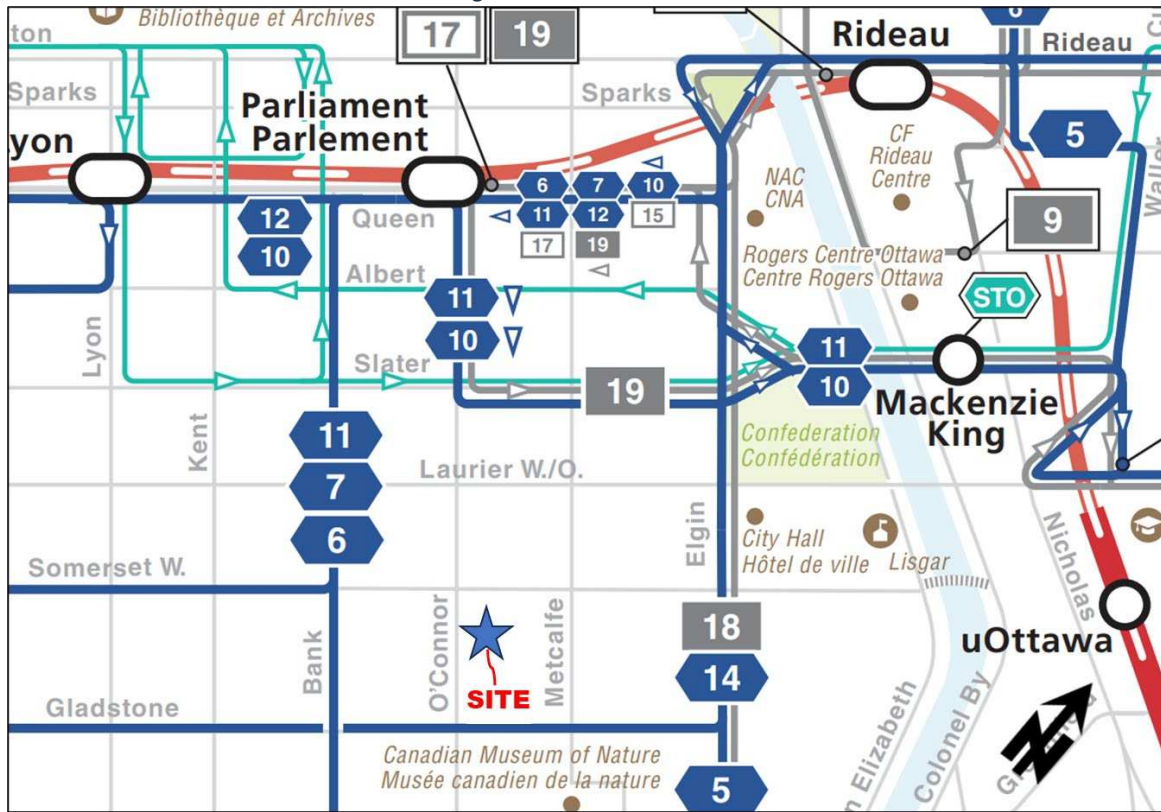
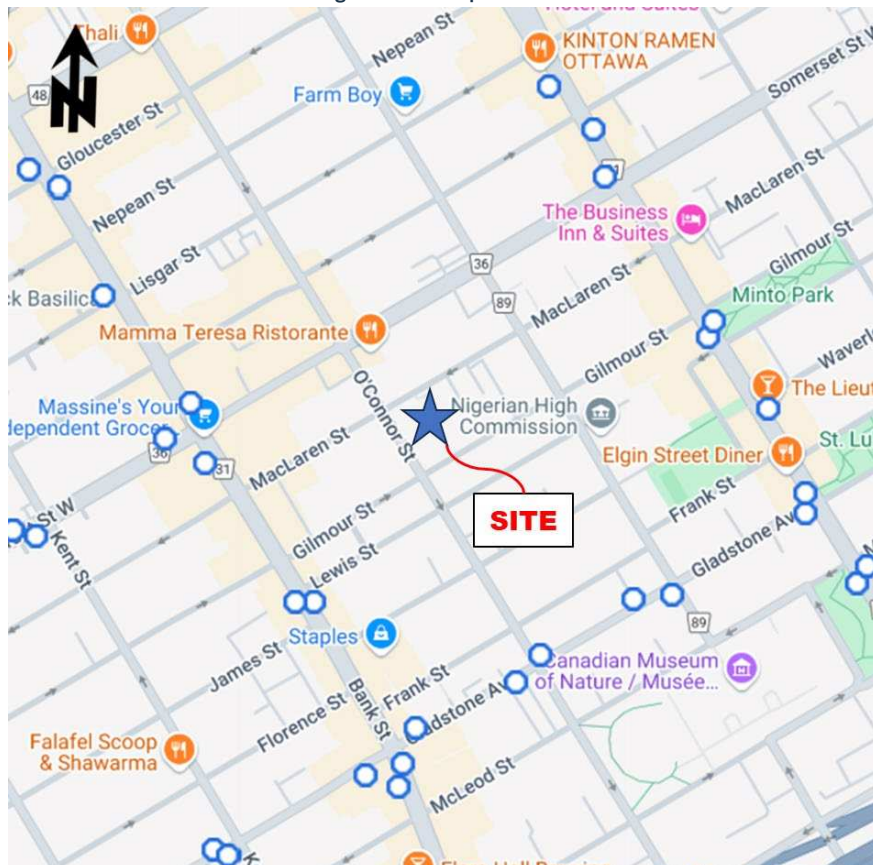


Figure 5: Bus Stop Locations





## Peak Hour Travel Demands

Traffic counts were obtained from the City of Ottawa for major study area intersections. Traffic counts were also collected manually at the existing site access to determine volumes currently generated by the site. **Figure 6** illustrates vehicle traffic volumes, with the original traffic data sources provided in **Appendix C**.

Intersection traffic data includes the following:

- O'Connor/Somerset – conducted by City of Ottawa on Tuesday, March 21, 2017
- O'Connor/MacLaren – conducted by City of Ottawa on Thursday, March 21, 2019
- O'Connor/Existing Site Access – conducted by City of Ottawa on Tuesday, July 09, 2019
- O'Connor/Gilmour – conducted by City of Ottawa on Tuesday, March 21, 2017
- O'Connor/Gladstone – conducted by City of Ottawa on Tuesday, March 21, 2017
- Metcalfe/Somerset – conducted by City of Ottawa on Thursday, May 02, 2019
- Metcalfe/MacLaren – conducted by City of Ottawa on Tuesday, April 04, 2017
- Metcalfe/Gilmour – conducted by City of Ottawa on Tuesday, April 04, 2017
- Metcalfe/Gladstone – conducted by City of Ottawa on Tuesday, April 04, 2017

While turning movement studies were taken several years ago, the nature of the downtown area typically results in negligible changes in traffic volumes. The above counts are considered to remain suitable for the purposes of this analysis, and can be updated at the time of Site Plan Control.

Active transport volumes are illustrated in **Figure 7**. The following is noted based on raw data:

- **O'Connor Street bike lanes:** Based on the latest traffic data collected at O'Connor/Existing Site Access intersection during summer months, up to 240 bike volume was recorded in the northbound direction during the morning peak hour and 165 bike were recorded in the southbound direction during the afternoon peak hour. Since volumes at adjacent intersections were collected during winter months, they reflect notably lower bike volumes.
- Pedestrian volumes are found to be highest on the east and west intersection crosswalks in most cases (i.e. travelling northbound/southbound on O'Connor St and Metcalfe St). The highest volumes are recorded at the Somerset St intersections, where up to 267 and 350 pedestrians crossed on one side of the intersection during the morning and afternoon peak hours, respectively.

Figure 6: Existing Peak Hour Vehicle Traffic Volumes - AM (PM) Peak Hour

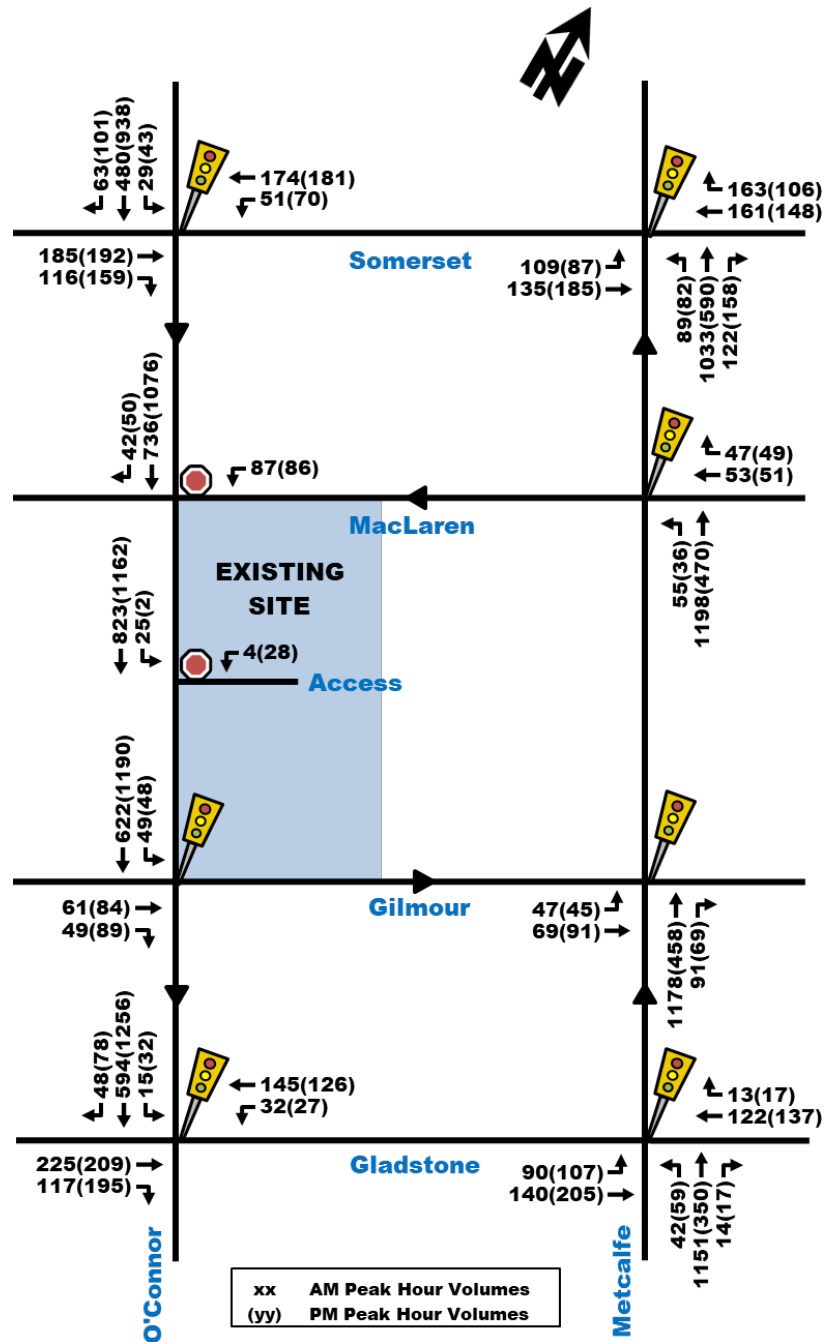
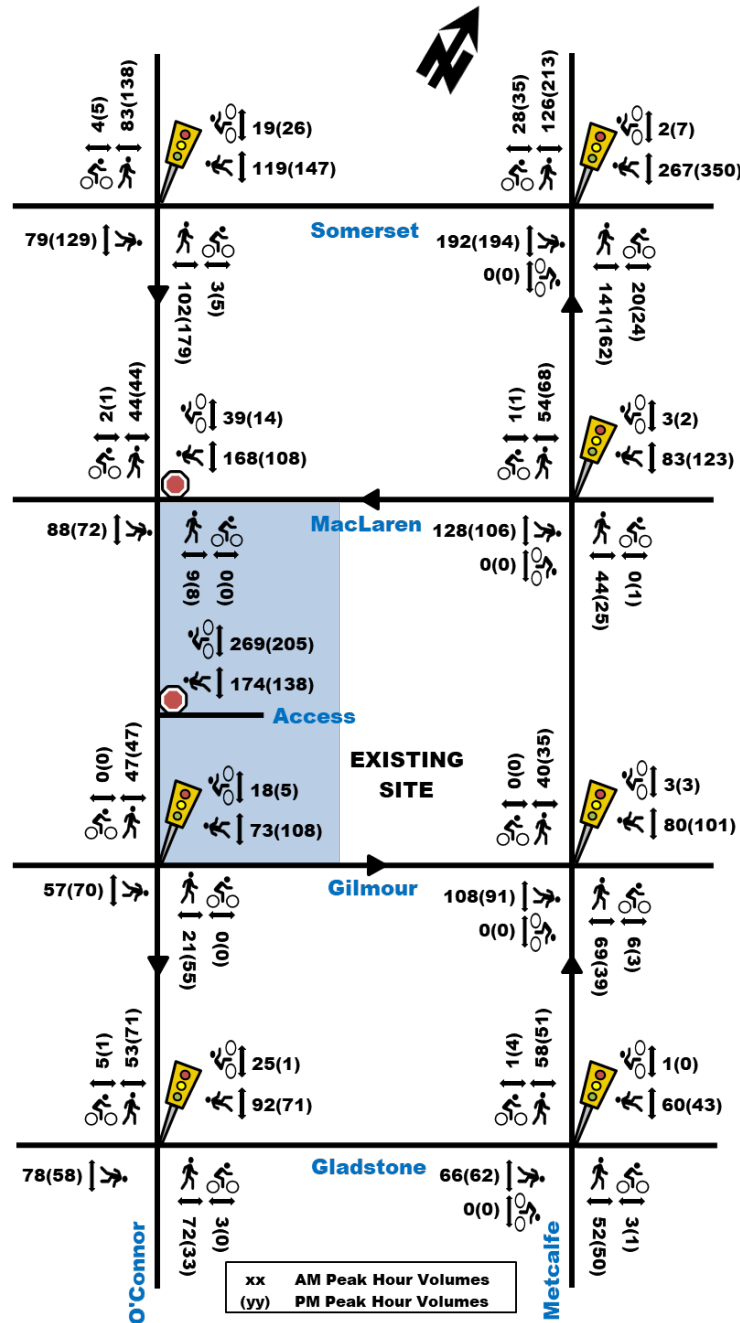


Figure 7: Existing Peak Hour Active Transport Volumes



### Existing Road Safety Conditions

The latest five-year collision history data at study area intersections and roads (2018 to 2022, inclusive) was obtained from the City of Ottawa's Open Data website. Based on the results, a total of 164 collisions have occurred over the five-year period, where the majority (83%) resulted in property damage only and 17% resulting in non-fatal injuries. The collision types are broken down as 49 (30%) sideswipes, 43 (26%) turning movement, 23 (14%) angled, 19 (12%) rear ends, 17 (10%) single unattended vehicle, 11 (7%) single vehicle (other), and 2 (1%) 'other'.

The City of Ottawa classifies more than 6 collisions of the same impact type at a given movement within the 5-year period to be a collision pattern. A detailed breakdown of collision data is provided in **Appendix D**. Below is a summary of collision quantity at each location:

### Intersections

- Metcalfe/Somerset: 16 (including 1 pedestrian and 1 bicycle)
- Metcalfe/Gilmour: 4
- Metcalfe/Waverley: 3
- Metcalfe/Lewis: 10
- Metcalfe/Frank: 6
- Metcalfe/MacLaren: 6
- Metcalfe/Gladstone: 15 (including 1 pedestrian and 1 bicycle)
- O'Connor/Gilmour: 21 (including 5 bicycles)
- O'Connor/Waverley: 10 (including 3 bicycles)
- O'Connor/Gladstone: 16
- O'Connor/Somerset: 20 (including 5 pedestrian and 1 bicycle)
- O'Connor/Frank: 3 (including 1 bicycle)
- O'Connor/Lewis: 1

### Mid-Block

- Metcalfe St, Waverley St to Frank St: 2
- Metcalfe St, Gilmour St to Lewis St: 3
- Metcalfe St, MacLaren St to Gilmour St: 2
- Metcalfe St, Lewis St to Waverley St: 1
- Metcalfe St, Somerset St to MacLaren St: 1
- Metcalfe St, Frank St to Gladstone Ave: 2
- O'Connor St, Gilmour St to Lewis St: 2
- O'Connor St, Frank St to Gladstone Ave: 3
- O'Connor St, Somerset St to MacLaren St: 3
- O'Connor St, Waverley St to Frank St: 3
- O'Connor St, Lewis St to Waverley St: 3
- O'Connor St, MacLaren St to Gilmour St: 4 (including 1 bicycle)
- Gilmour St, O'Connor St to Metcalfe St: 3
- MacLaren St, O'Connor St to Metcalfe St: 1

Based on the above collisions and the analyzed impact types, a collision pattern was found to have occurred at only one location, the O'Connor/Gilmour intersection, where 8 sideswipe collisions have occurred mostly between two vehicles travelling in the southbound direction. Sideswipes occur mainly as a result of lane changes. In this case, the cause of the collisions is likely vehicles in the left lane trying to switch to the right lane to go around vehicles attempting to make a left turn onto Gilmour St, resulting in sideswipe collisions with vehicles already in the right lane.

In addition to vehicle collisions and as noted in the summary lists above, the following pedestrian and bicycle collisions have occurred in the study area, all of which resulted in non-fatal injuries:

- Seven total pedestrian collisions, with five of the collisions occurring at the O'Connor/Somerset intersection.
- Thirteen total bicycle collisions, with most collisions occurring along O'Connor St intersections, particularly at the O'Connor/Gilmour and O'Connor/Waverley intersections, where traffic on O'Connor St can cross over the bike lanes while turning left. The bike collisions seem to have occurred mostly during summer and spring months, when bike volumes are at their highest.

### 2.1.3. Planned Conditions

#### Future Transportation Network Changes

##### Transportation Master Plan

Based on the City of Ottawa's Transportation Master Plan (TMP), O'Connor St is classified as a Cross-Town Bikeway between Fifth Ave in the south and Laurier Ave in the north. Future active transportation (AT) projects are also identified by the TMP, which indicates the following:

- Separated cycling facilities on O'Connor St are expected to be extended further north from Laurier Ave to Wellington St. Construction is expected to start by spring 2025 and end by summer 2026.
- The TMP indicates future westbound bike lanes may be provided on Gilmour St, between Cartier St and Percy St as an "Infrastructure Project Type" with a first phase priority. Additionally, a feasibility study is anticipated in the future or adding cycling lanes on Gladstone Ave from Percy St to Corso Italia Station.

##### Central and East Downtown Core Secondary Plan

The City of Ottawa Official Plan includes urban Secondary Plans that establish and guide future development and infrastructure needs in respective areas, including general mobility suggestions and requirements. As shown in **Figure 8**, the Central and East Downtown Core Secondary Plan identifies a vision for different areas of the

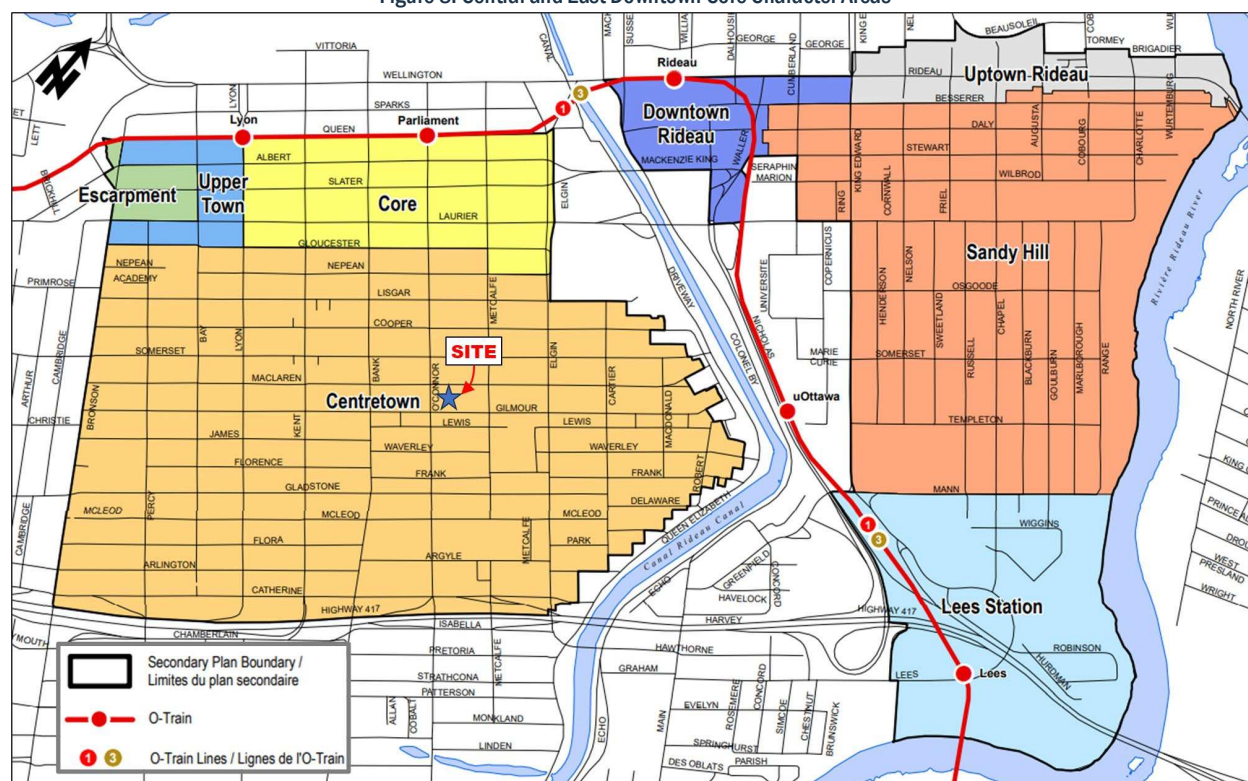
downtown core, including the Centretown, where the development is located. The Secondary Plan also establishes general objectives or principles that apply to all areas. Below are two relevant general mobility related objectives.

- Setting the posted speed limits on streets to 30km/h or less, which has already been implemented on both MacLaren St and Gilmour St.
- Development will locate loading in a manner that does not compromise or negatively impact sustainable modes. Where possible, they should be accessed from within the building envelope and not the public right of way. For this development, loading spaces for move-in vehicles are located within the building envelopes.

In addition to the above general policies, the Secondary Plan has established broad policies more specific to the Centretown area and the subject development site. Some of the key policies are identified as follows:

- The City intends to conduct a study pertaining to the conversion of one-way streets to two-way streets, including both Metcalfe St and O'Connor St. The idea is that this conversion may result in improved safety and comfort for sustainable modes, as well as improve wayfinding in the downtown area.
- The City shall undertake streetscape improvements along each of O'Connor St, Metcalfe St, Somerset St and Gladstone Ave, which will be guided by the Centretown Community Design Plan.
- A policy specific to the 267 O'Connor St site is noted, which mainly addresses the site's potential for redevelopment given its strategic location.

Figure 8: Central and East Downtown Core Character Areas



### Other Area Developments

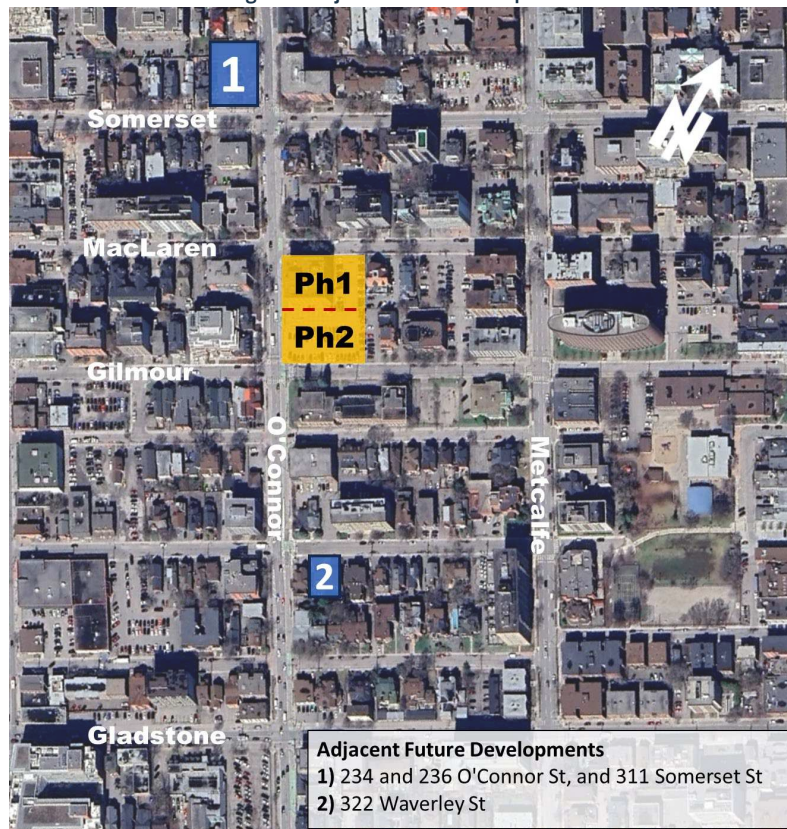
Based on the City of Ottawa DevApps webpage, the following two future developments are expected within the study area in the next several years:

1. 234 and 236 O'Connor St, and 311 Somerset St: A residential development consisting of an 18-storey building with 156 apartment units. It is expected to generate minimal traffic with up to 21 vehicle trips during peak hours.



2. 322 Waverley St: a residential development consisting of a 6-storey building with 27 apartment units. The development is expected to generate negligible trips during peak hour.

Figure 9: Adjacent Future Developments

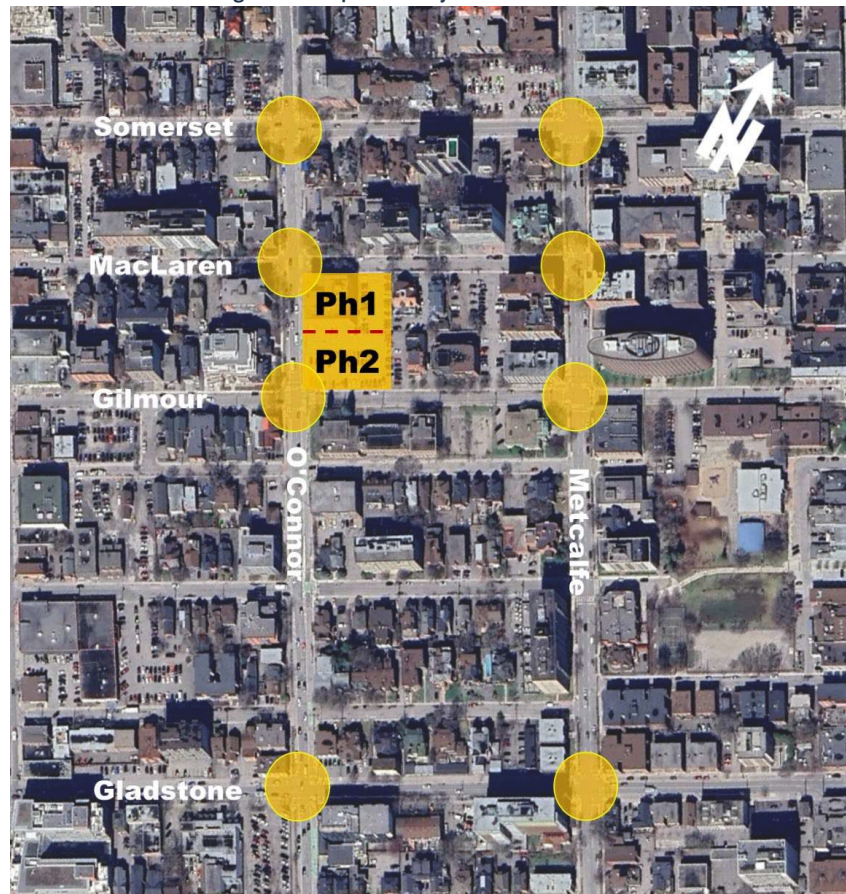


## 2.2. Study Area and Time Periods

The proposed study area consists of intersections listed below and highlighted in **Figure 10**. Given the trips expected to be generated by this development will be residential trips, the time periods to be assessed are the weekday morning and afternoon commuter peak hours.

- Somerset/O'Connor
- MacLaren/O'Connor
- Gilmour/O'Connor
- Gladstone/O'Connor
- Somerset/Metcalfe
- MacLaren/Metcalfe
- Gilmour/Metcalfe
- Gladstone/Metcalfe

Figure 10: Proposed Study Area and Intersections



### 2.3. Exemption Review

The following modules/elements of the TIA process provided in **Table 1** are recommended to be exempt in the subsequent steps of the TIA process, based on the City's TIA guidelines and the site context:

Table 1: Exemptions Review Summary

Module	Element	Exemption Consideration
3.2 Background Network Traffic	All	Only required if one or more of modules 4.6 to 4.9 are triggered, as per 2023 TIA Guidelines update.
3.3 Demand Rationalization	All	Only required if one or more of modules 4.6 to 4.9 are triggered, as per 2023 TIA Guidelines update.
4.1 Development Design	4.1.3 New Street Networks	Only required for applications involving plans of subdivision.
4.6 Neighbourhood Traffic Calming	All elements	Development generates less than 75 site generated auto trips (see section 3.1.1). This section is exempt as per TIA Guidelines 2023 update.
4.7 Transit	4.7.1 Transit Route Capacity	Development generates less than 75 site generated transit trips (see section 3.1.1). This section is exempt as per TIA Guidelines 2023 update.
4.8 Network Concept	All	Development generates less than 200 new site generated person trips (see section 3.1.1).
4.9 Intersection Design	All	Development generates less than 75 site generated auto trips (see section 3.1.1). This section is exempt as per TIA Guidelines 2023 update.

### 3.0 FORECASTING

#### 3.1. Development Generated Travel Demand

##### 3.1.1. Trip Generation and Mode Shares

The proposed development will consist of two high-rise residential buildings consisting of 513 apartment units and approximately 3,941 ft<sup>2</sup> of first floor retail space between the two buildings. The ground-floor commercial space is considered nominal in size and expected to have negligible regional trip generation potential due to its attraction to local residents. Commercial trips were not included in the analysis below. For the purposes of the trip generation, a single build-out phase has been analyzed given that each phase is anticipated to be completed consecutively.

The appropriate trip generation rates for high-rise apartment land uses were obtained from the 2020 TRANS Trip Generation Manual. The Manual provides person-trip rates during the peak AM and PM periods (7:00am - 9:30am and 3:30pm - 6:00pm). The trip rates are summarized in **Table 2** below.

Table 2: High-Rise Residential Trip Rates

Land Use	Dwelling Units	Data Source	Trip Rates	
			AM Peak Period (7-9:30am)	PM Peak Period (3:30-6pm)
Multi-Use (High-Rise)	513 units	TRANS	T = 0.80(du);	T = 0.90(du);

Note: T = Average Vehicle Trip Ends; du = dwelling unit

Using the respective trip rates in **Table 2**, the total number of two-way peak period person trips generated by the proposed land use are shown below in **Table 3**.

Table 3: High-Rise Residential Peak Period Person Trip Generation – Two Way

Land Use	Dwelling Units	AM Peak Period Person Trips	PM Peak Period Person Trips
Multi-Use (High-Rise)	513	410	462

The proposed development is anticipated to generate a total of approximately 410 and 462 person trips during the morning and afternoon peak periods, respectively. The total peak period person trips in **Table 3** are then divided into different travel modes in **Table 4**, using mode share percentages obtained from the 2020 TRANS Manual for the “Ottawa Inner Area” district. Note that the Walking mode share was rounded up to result in a sum of 100% for the mode share.

Table 4: High-Rise Residential Mode Shares Breakdown

Travel Mode	Mode Share	AM Peak Period Person Trip	Mode Share	PM Peak Period Person Trips
Auto Driver	26%	107	25%	117
Auto Passenger	6%	25	8%	38
Transit	28%	114	21%	99
Cycling	5%	22	6%	27
Walking	35%	141	40%	181
<b>Total Person Trips</b>	<b>100%</b>	<b>410</b>	<b>100%</b>	<b>462</b>

Given the development is a residential building, its commuting patterns are expected to following typical commuting patterns contributing towards the morning and afternoon peak hours of travel demand. The morning and afternoon peak hours represent a typical worst-case scenario for vehicle traffic. The 2020 TRANS Manual indicates conversion rates from peak period to AM and PM peak hours for different mode shares, as shown in **Table 5** below.



Table 5: Peak Period to Peak Hour Conversion Factors (2020 TRANS Manual)

Travel Mode	Peak Period to Peak Hour Conversion Factors	
	AM	PM
Auto Driver & Auto Passenger	0.48	0.44
Transit	0.55	0.47
Cycling	0.58	0.48
Walking	0.58	0.52

Using the conversion rates in **Table 5** and the peak period person trips for different travel modes in **Table 4**, the peak hour trips for different travel modes can be calculated as shown below in **Table 6**.

Table 6: High-Rise Residential Peak Hour Trip Generation

Travel Mode	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
	In (31%)	Out (69%)	Total	In (58%)	Out (42%)	Total
Auto Driver	16	35	51	30	22	52
Auto Passenger	4	8	12	10	7	17
Transit	20	43	63	27	19	46
Cycling	4	9	13	7	5	13
Walking	25	57	82	55	40	94
<b>Total Person Trips</b>	<b>69</b>	<b>152</b>	<b>221</b>	<b>129</b>	<b>93</b>	<b>222</b>

As shown in **Table 6**, the proposed development is anticipated to generate a total of approximately 220 person trips during the peak hours. Active transportation mode shares (cycling and walking) are expected to generate the most trips with up to 107 trips per hour while the transit mode share is expected to generate up to 63 trips. This is considered typical of residential buildings in the downtown core and given the distance to rapid transit.

Vehicle trips are forecast to be approximately 50 two-way vehicles during the peak hours, representing approximately a vehicle every 2 minutes in the peak direction. This is considered to be a nominal impact on the surrounding transportation network.

### Net New Vehicle Trips

The existing site currently generates a number of vehicle trips during peak hours. These trips should be accounted for as a reduction to total future site-generated vehicle trips, since they are technically already part of the study area traffic volumes. **Table 7** provides the difference between future and existing vehicle trips generated by the site. A negative number indicates that a reduction in net traffic generated by the site is expected. Total two-way trips indicate a minimal net increase of approximately 22 vehicles in the study area during peak hours as a result of the proposed development.

Table 7: Net New Site-Generated Vehicle Trips

Site-Generated Vehicle Trips	AM Peak (Person Trips/hr)			PM Peak (Person Trips/hr)		
	In	Out	Total	In	Out	Total
Existing Vehicle Trips	25	4	29	2	28	30
Future Vehicle Trips	16	35	51	30	22	52
<b>Net 'New' Vehicle Trips (Future minus Existing)</b>	<b>-9</b>	<b>31</b>	<b>22</b>	<b>28</b>	<b>-6</b>	<b>22</b>

### 3.1.2. Trip Distribution and Assignment

Based on the 2011 OD Survey (Ottawa Inner Area) and the location of adjacent arterial roadways and neighbourhoods, the distribution of site-generated traffic volumes was estimated as follows:

- 25% to/from the south via O'Connor St, Metcalfe St, Bank St and Elgin St;

- 25% to/from the north via Metcalfe St, O'Connor St, Bank St and Elgin St;
- 20% to/from the east via Hwy 417; and,
- 30% to/from the west via Hwy 417 and Somerset St.

The expected site-generated vehicle trips for the development, based on anticipated volumes in **Table 6**, are assigned to the study area as shown in **Figure 11**. As indicated by **Table 7**, the existing site traffic volumes can be accounted for as a reduction to future site-generated traffic at study area intersections, as illustrated by the assumed traffic distribution of the existing site shown in **Figure 12**. By subtracting the existing site trips from the anticipated vehicle trips of the proposed development, the new vehicle trips in the study area are determined as shown in **Figure 13**.

Figure 11: Proposed Development Site-Generated Vehicle Trips – AM (PM) Peak Hour

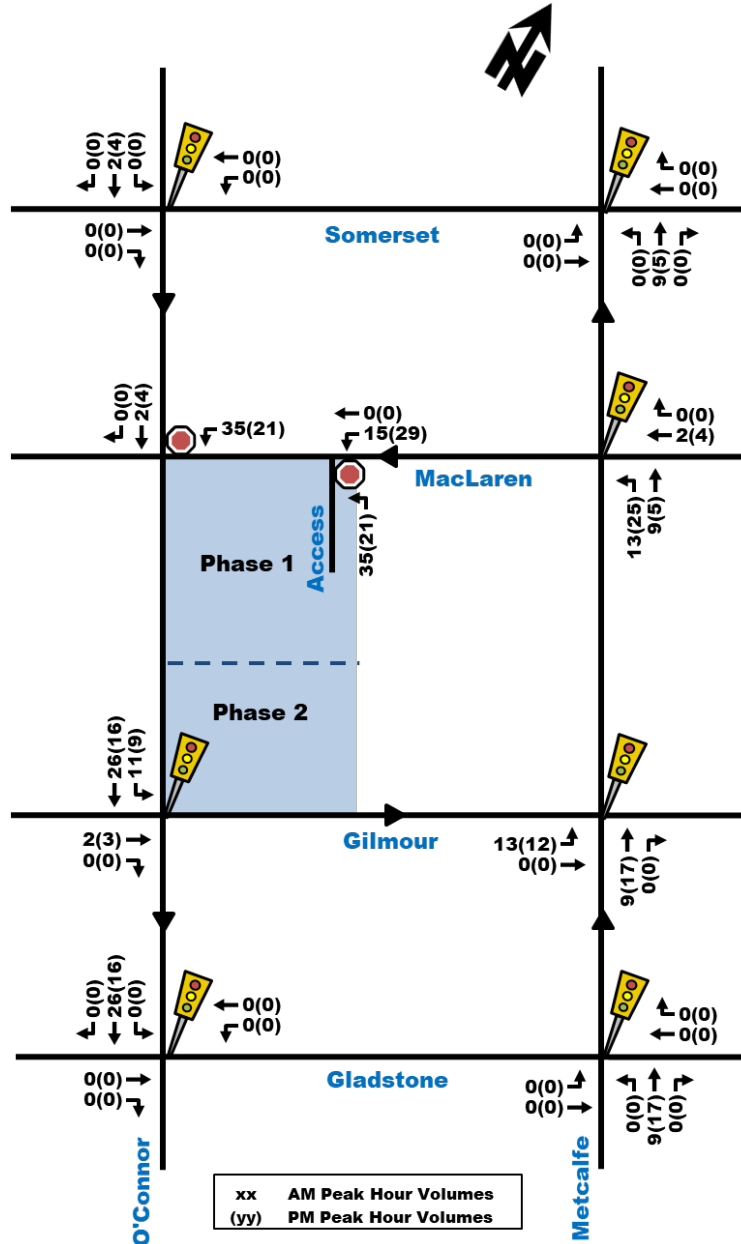


Figure 12: Existing Development Site-Generated Vehicle Trips - AM (PM) Peak Hour

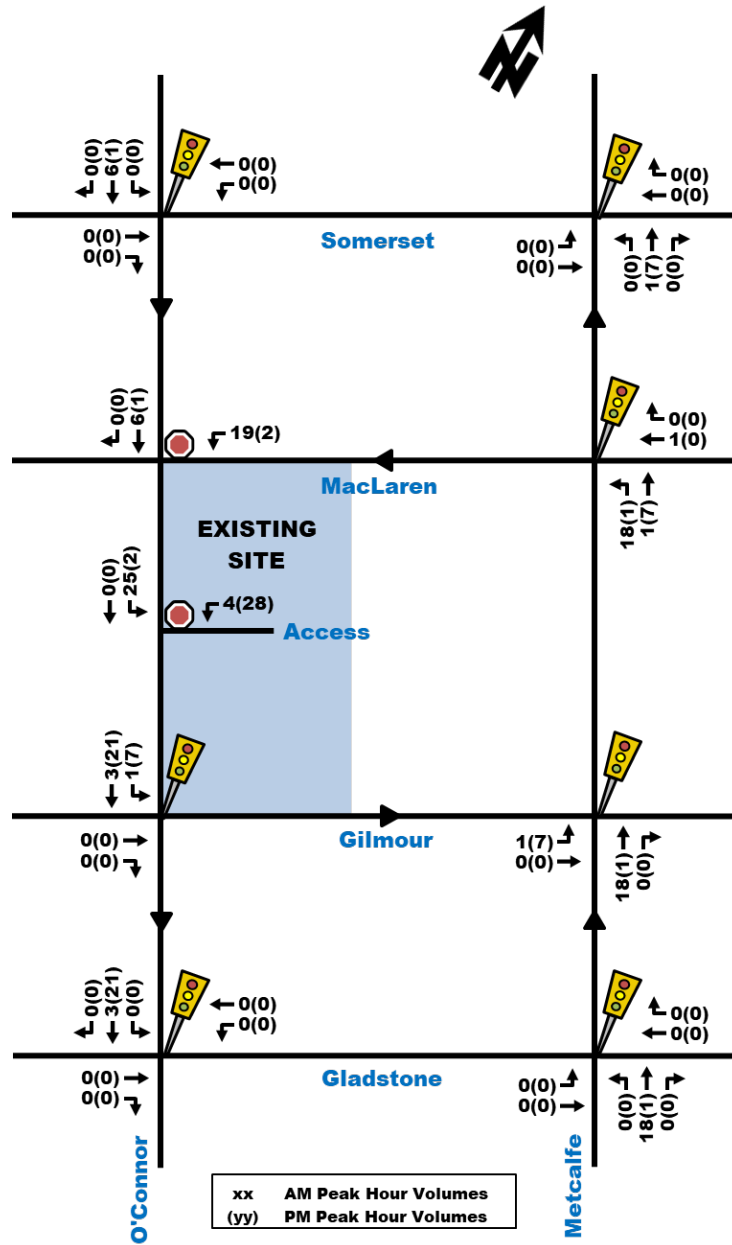
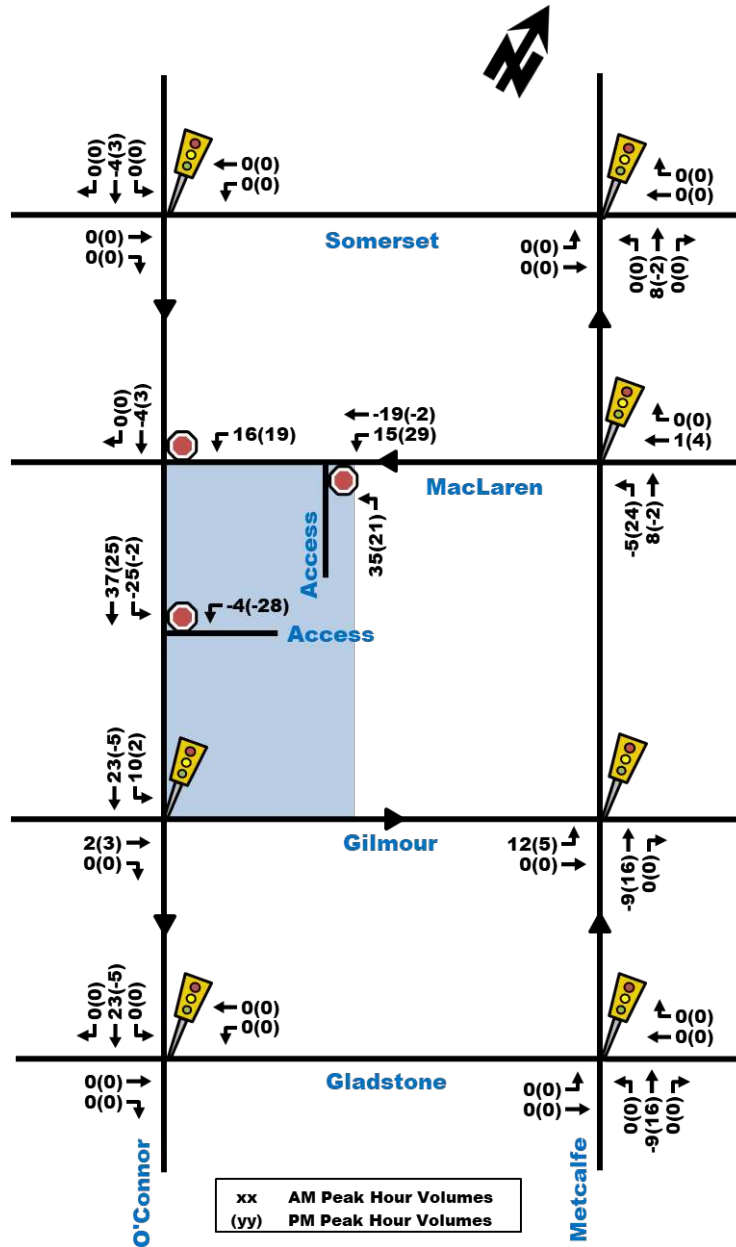


Figure 13: 'Net' Site-Generated Vehicle Trips – AM (PM) Peak Hour



### 3.2. Background Network Traffic

Exempt – see Table 1.

### 3.3. Demand Rationalization

Exempt – see Table 1.

## 4.0 ANALYSIS

### 4.1. Development Design

---

#### 4.1.1. Design for Sustainable Modes

The City of Ottawa's TDM-supportive Development Design and Infrastructure checklist has been provided in **Appendix E** and discussed in more detail in Section 4.5.3.

##### Pedestrian Facilities

The proposed development will provide sidewalks along the perimeter facing the public ROWs of O'Connor St, MacLaren St and Gilmour St. Sidewalks are expected to be 2.0m wide, representing a widening of the existing sidewalk on MacLaren St and Gilmour St. The location of the curbs is to remain the same. The buildings are oriented to the MacLaren St and Gilmour St frontages, promoting pedestrian access and improving the public realm experience. To further augment the public realm, a POPS (Privately Owned Public Space) is framed by both buildings, opening to O'Connor Street and promoting pedestrian permeability through the site.

##### Transit Amenities

There are no bus routes that currently operate at the site frontages. The nearest bus stops to the site are along Bank St and Elgin St, within 270-320m walking distance of the site, as detailed by the existing transit network description in Section 2.1.2. The LRT Line 1 is also located to the north, with Parliament Station within an 850m walking distance.

##### Auto and Bicycle Parking

Vehicle parking is proposed to be provided in a four-level underground parking garage, accessed via a ramp along MacLaren St. Visitor parking will be on parking level 1, while resident parking will be on all levels. Bike parking will also be located underground on different levels, as well as on the ground floor. Underground bike parking can be accessed via elevators. Bike parking will be provided at a minimum ratio of 1 stall per residential unit.

#### 4.1.2. Circulation and Access

The buildings are expected to be accessible to various types of vehicles, including bikes, passenger cars, municipal vehicles and move-in trucks. Access is summarized as follows:

- The proposed underground parking garage access will be located along MacLaren St, near the east end of the property, where passenger cars will be able to utilize it.
- A loading bay for move-in trucks will be provided along MacLaren Street, near the east end of the site to serve both buildings. Truck swept path analysis will be provided at Site Plan Control (SPC) Application for the site.
- Garbage rooms for each building will be located along MacLaren St for Phase 1 and Gilmour St for Phase 2 for on-street pick-up. Municipal garbage trucks are expected to serve the proposed development in the future.
- Firetruck access to the building would be via the surrounding public roads, where building entrances are located.

#### 4.1.3. New Street Networks

Exempt – see **Table 1**.

### 4.2. Parking

---

The development is proposing to provide a total of 513 dwelling units (273 in Phase 1 and 240 in Phase 2) and approximately 3,941 ft<sup>2</sup> (367 m<sup>2</sup>) total first-floor retail space, within two high-rise residential buildings. Based on

the City of Ottawa Parking Provisions under Zoning By-Law, the proposed development is located in “Area X” on Schedule 1A, which consists of the following parking requirements:

- A minimum parking space rate of 0.5 spaces per dwelling unit for the high-rise residential buildings, excluding the first twelve units of each building. Since all parking spaces are provided below grade, the number of spaces required can be further reduced by 20 spaces. This equates to at least 225 total vehicle spaces required.
- No off-street motor vehicle parking is required for first-floor non-residential uses with an area less than 200 m<sup>2</sup>. Note that the development proposes several retail spaces, none of which are larger than 200 m<sup>2</sup>.
- Visitor parking is required at a rate of 0.1 per dwelling unit, up to a maximum of 30 spaces per building and excluding the first twelve units of each building. This equates to 26 spaces for Phase 1 building and 23 spaces for Phase 2 building, resulting in a total requirement of 49 visitor spaces.
- Bicycle parking is required at a rate of 0.50 per dwelling unit, as well as 1 per 250 m<sup>2</sup> for retail land use, resulting in a total requirement for approximately 259 bicycle spaces.

The development is proposing to provide a total of 267 residential parking spaces, 52 visitor parking spaces and at least 514 bicycle parking spaces (1:1 Bike Parking ratio). Therefore, the parking requirements outlined above are expected to be met. All vehicle parking spaces will be provided in the underground parking garage, while bike parking spaces will be provided underground and on the ground floor.

### 4.3. Boundary Street Design

For the purpose of this analysis, the newly approved City of Ottawa MMLOS Tool will be used. There are three boundary streets fronting the development site, which includes O'Connor Street to the west, MacLaren Street to the north and Gilmour Street to the south. The facilities and geometric features of each street are described below.

- O'Connor Street (arterial classification):
  - Two one-way southbound vehicle travel lanes
  - Bidirectional cycle track on the east side of the road with no boulevard
  - No existing bus routes
  - Approximately 2m wide sidewalk on east side of road with more than 3m offset from the travel lanes
  - Approximately 1.5m wide sidewalk on west side of road with adjacent on-street parking
  - Approximately 12,720 veh/day
  - Posted speed limit of 50km/h
  - Less than 200m distance to the nearest controlled crossing
  - More than 3m wide outer boulevard in the future due to setbacks
- MacLaren Street (local classification):
  - One one-way westbound vehicle travel lane
  - No cycling facilities or existing bus routes
  - Approximately 1.6m wide sidewalk on the north side with adjacent on-street parking
  - Approximately 1.5m wide sidewalk on the south side. The sidewalk on the south side will be widened to 2m in the future.
  - Approximately 1,350 veh/day
  - Posted speed limit of 30km/h
  - Less than 200m distance to the nearest controlled crossing
  - Up to 2m wide outer boulevard on the south side in existing conditions expected to widen to at least 3m in the future due to setbacks
- Gilmour Street (local classification):
  - One one-way eastbound vehicle travel lane
  - No cycling facilities or existing bus routes
  - Approximately 1.5m wide sidewalk on the north side with adjacent on-street parking. The sidewalk on the north side will be widened to 2m in the future.

- Approximately 1.5m wide sidewalk on the south side.
- Approximately 1,460 veh/day
- Posted speed limit of 30km/h
- Less than 200m distance to the nearest controlled crossing
- At least 3m wide outer boulevard in the future due to setbacks

Multi-modal Level of Service analysis for the development's boundary road segments is summarized in **Table 8** with detailed analysis provided in **Appendix F**.

Table 8: MMLoS – Boundary Street Segments Existing and Future Conditions

Road Segment	Side	Level of Service Existing and Future* Conditions				
		Pedestrian		Bicycle		Public Realm
		PLOS	Target	BLOS	Target	PRLOS
O'Connor Street	West	D	B	-	B	-
	East	A	B	D	B	B, A*
MacLaren Street	North	D	B	A	C	-
	South	D, B*	B	A	C	B, A*
Gilmour Street	North	D, B*	B	A	C	C, A*
	South	D	B	A	C	-
<b>Note:</b> Red font indicates that the respective minimum desirable LOS target is not met. An asterisk (*) indicates a different future score for the respective LOS mode.						

### Pedestrian

The pedestrian LOS does not meet the respective target at most locations in existing conditions due to narrow 1.5m wide sidewalks. In future conditions, sidewalks along all three site frontages are expected to be widened to at least 2.0m, which meets the respective targets.

### Bicycle

There are no cycling modifications anticipated at this time at the site frontages. The bicycle LOS currently meets the target along MacLaren Street and Gilmour Street due to low posted speeds of 30km/h. Along O'Connor Street, the east side where the bi-directional cycle tracks are currently provided does not meet the respective target due to the facility width being narrower than 3.5m and the lack of boulevard separation.

### Public Realm

As a target, the MMLoS Guidelines indicate that the ratio of PRLOS of the proposed design to PRLOS of the existing conditions should be greater than 1.0. The future PRLOS shows notable improvements compared to existing conditions, resulting in a ratio that exceeds 1.0. This is due to the provision of outer boulevards on all frontages.

## 4.4. Access Intersection Design

The access design will be discussed in detail as part of the Site Plan Control (SPC) Application. Nonetheless, the current access design is expected to adhere to the requirements of the City of Ottawa Private Approach By-Law and Zoning By-Law Aisle and Driveway Provisions (Section 107), as detailed below:

### Private Approach By-Law Requirements

- The maximum width of the proposed private approach is expected to be 9m. The curb depressions for the proposed access and loading bay are anticipated to be separated, with exact measurements detailed at SPC Application.

- The distance between the private approach and an intersecting street line must not be less than 60m. However, the minimum offset distance cannot be achieved due to the length of the property frontages. The access has been located as far east of as possible along MacLaren St.
- The grade of the private approach is not to exceed 2% within the private property for a distance of 9m to the curb line.
- A 0.3m minimum buffer is required between the limit of the site access and the property line.

#### Zoning By-Law Requirements

- The parking garage ramp driveway width will be at least 6.0m wide, with maximum permitted width of 6.7m.
- The underground garage's parking aisles will be at least 6.0m wide.

### 4.5. Transportation Demand Management

#### 4.5.1. Context for TDM

Based on the type of development as a residential land use, it is expected that most trips generated by the proposed site will be from residents leaving the site in the AM peak to go to work and returning to the site in the PM peak. **Sections 3.1.1 and 3.1.2** describe how many trips are anticipated per travel mode.

The development is proposing 513 apartment units in two high-rise residential building. The north building (i.e. Phase 1), will consist of 35 studio units, 144 one-bedroom units, 6 one-bedroom + den, 85 two-bedroom, and 3 two-bedroom + den units. The south building (i.e. Phase 2), will consist of 21 studio units, 142 one-bedroom units, 11 one-bedroom + den, 53 two-bedroom, and 13 two-bedroom + den units.

#### 4.5.2. Need and Opportunity

Transit usage is expected to be typical for residential buildings within the downtown area. Rapid transit is not available in the immediate vicinity. The availability of reliable transit routes within an approximate 300m walking distance, along with the LRT Line 1 within an approximate 850m walking distance is expected to help incentivize more transit usage. Additionally, active transport connections via pedestrian sidewalk facilities and bike lanes for cyclists also contribute to a significant active transport mode share. In particular, the existing O'Connor St bike facility creates a strong north-south cycling link for residents.

Further, the proposed development is expected to utilize some Transportation Demand Management (TDM) measures to maintain sustainable transit and active mode shares, as described in more detail in the following sections.

#### 4.5.3. TDM Program

The TDM Infrastructure and TDM Measures Checklists have been provided in **Appendix E**. The proposed measures in each respective checklist are identified below.

#### Proposed measures identified in the TDM-supportive Development Design and Infrastructure Checklist are:

- All ten (10) Required measures related to Walking and Cycling (facilities and bicycle parking) and Vehicle Parking have been satisfied
- Five (5) out of fourteen (14) basic measures related to Walking and Cycling have been satisfied, namely:
  - Locating building close to the street.
  - Locating building entrances to minimize walk distance to sidewalks and transit.
  - Locating building doors and windows to ensure visibility of pedestrians.
  - Providing lighting, landscaping and benches along walking and cycling routes.
  - Providing wayfinding signage for site access.
- One (1) out of seven (7) better measures related to Carsharing have been satisfied, namely:



- Provide up to three carshare spaces.

**Proposed measures identified in the TDM Measures Checklist are:**

- Display walking and cycling information at major entrances.
- Display transit information at major entrances.
- Provide on-site carshare vehicles.
- Unbundle parking costs from monthly rent.
- Provide multi-modal travel information package to new residents.

#### **4.6. Neighbourhood Traffic Management**

---

Exempt – see Table 1.

#### **4.7. Transit**

---

Exempt – see Table 1.

#### **4.8. Review of Network Concept**

---

Exempt – see Table 1.

#### **4.9. Intersection Design**

---

Exempt – see Table 1.

### **5.0 FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

Based on the results summarized herein the following findings and recommendations are provided:

#### **Proposed Development**

- Taggart is proposing a residential buildings development comprised of 2 high-rise apartment towers (27 and 25-storey) totaling 513 units, with 3,941 ft<sup>2</sup> first-floor commercial space. The site is currently occupied by a 6-storey commercial building and a surface parking lot, both of which will be replaced.
- Full build-out of the proposed development is expected by horizon year 2032 for the purposes of the analysis undertaken within this Transportation Impact Assessment Report.
- A total of 267 residential parking spaces, 52 visitor parking spaces and 514 bicycle parking spaces (1:1 Bike Parking ratio) are proposed, which meet the minimum requirements of Zoning By-Law.
- The development is expected to generate a total of approximately 220 person trips during the peak hours, consisting of up to 52 vehicle trips, up to 107 active transport trips and up to 63 transit trips. The existing site generates approximately 30 two-way vehicle trips during both peak hours, which results in a reduction to the net new trips expected to be generated by the proposed development.
- A suite of TDM Measures are proposed to help support future trips by sustainable travel modes, including key measures such as providing on-site carshare vehicles, unbundle parking costs from monthly rent, and providing multi-modal travel information package to new residents.

#### **Future Design and Vehicle Circulation**

- Sidewalk facilities surrounding the site are expected to be at least 2.0m wide, with continuous and depressed sidewalk crossing at the proposed site access, as per City standard drawing SC7.1.
- Private Approach By-Law and Zoning By-Law requirements for site access and driveway designs are expected to be met by the site.
- Vehicle parking will be provided in a four-level underground parking garage, while bike parking will be provided in the underground garage and on the ground floor.

- Vehicle access to the development underground parking is proposed via a single two-way ramp connection to MacLaren St.
- Move-in trucks are expected to access the two buildings via a proposed internal loading bay along MacLaren Street, near the east limit of the property, while garbage collection will occur on-street along MacLaren St and Gilmour St. Firetrucks would also be able to access all building entrances via the surrounding public streets.
- Boundary street MMLOS analysis indicates notable improvements at development frontages due to widened pedestrian sidewalks and outer boulevard spaces.

### **Planned Study Area Modifications**

- The City of Ottawa TMP indicates two future active transport modification in the study area, which includes the following:
  - Extending the existing O'Connor St bike lanes north from Laurier Ave to Wellington St, expected to be constructed by summer 2026.
  - Providing westbound bike lanes on Gilmour St, between Cartier St and Percy St. Additionally, a feasibility study is anticipated in the future or adding cycling lanes on Gladstone Ave from Percy St to Corso Italia Station.
- The Central and East Downtown Core Secondary Plan identifies objectives and broad policies for the study area, which includes key mobility measures such as potentially converting both O'Connor St and Metcalfe St to two-way streets to improve safety and comfort of sustainable modes and allow more efficient wayfinding for vehicles. It also includes streetscape improvements along each of O'Connor St, Metcalfe St, Somerset St and Gladstone Ave, which will be guided by the Centretown Community Design Plan.
- Adjacent future developments include new residential developments at the locations below. Both developments are expected to generate minimal trips in the study area during peak hours.
  - 234 and 236 O'Connor St, and 311 Somerset St
  - 322 Waverley St

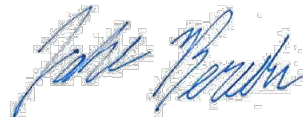
Based on the foregoing, the proposed residential development fits well into the context of the surrounding area, and its location and design serve to promote use of walking, cycling, and transit modes, thus supporting City of Ottawa policies, goals and objectives with respect to redevelopment, intensification and modal share. Therefore, the proposed development is recommended to proceed from a transportation perspective.

Prepared By:



Basel Ansari, P. Eng.  
Transportation Engineer

Reviewed By:



Jake Berube, P.Eng. RSP<sub>1</sub>  
Senior Transportation Engineer

# Appendix A:

TIA Screening Form and Site Plan

City of Ottawa 2017 TIA Guidelines

Date

8-Jan-24

**TIA Screening Form**

Project

267 O'Connor Street TIA

Project Number

477191-01000

Results of Screening	Yes/No
Development Satisfies the Trip Generation Trigger	Yes
Development Satisfies the Location Trigger	No
Development Satisfies the Safety Trigger	Yes

**Module 1.1 - Description of Proposed Development**

Municipal Address	267 O'Connor St, Ottawa, ON K2P 1V3, Canada
Description of location	East side of O'Connor Street between MacLaren and Gilmour
Land Use	Residential High-Rise Buildings
Development Size	27 and 25 Storey buildings with total of 500 units
Number of Accesses and Locations	One access on MacLaren Street at east site limit
Development Phasing	2 phases
Buildout Year	assumed 2029 full buildout
Sketch Plan / Site Plan	See attached

**Module 1.2 - Trip Generation Trigger**

Land Use Type	Multi-High Rise Res (3+ Storeys)
Development Size	500 Units
Trip Generation Trigger Met?	Yes

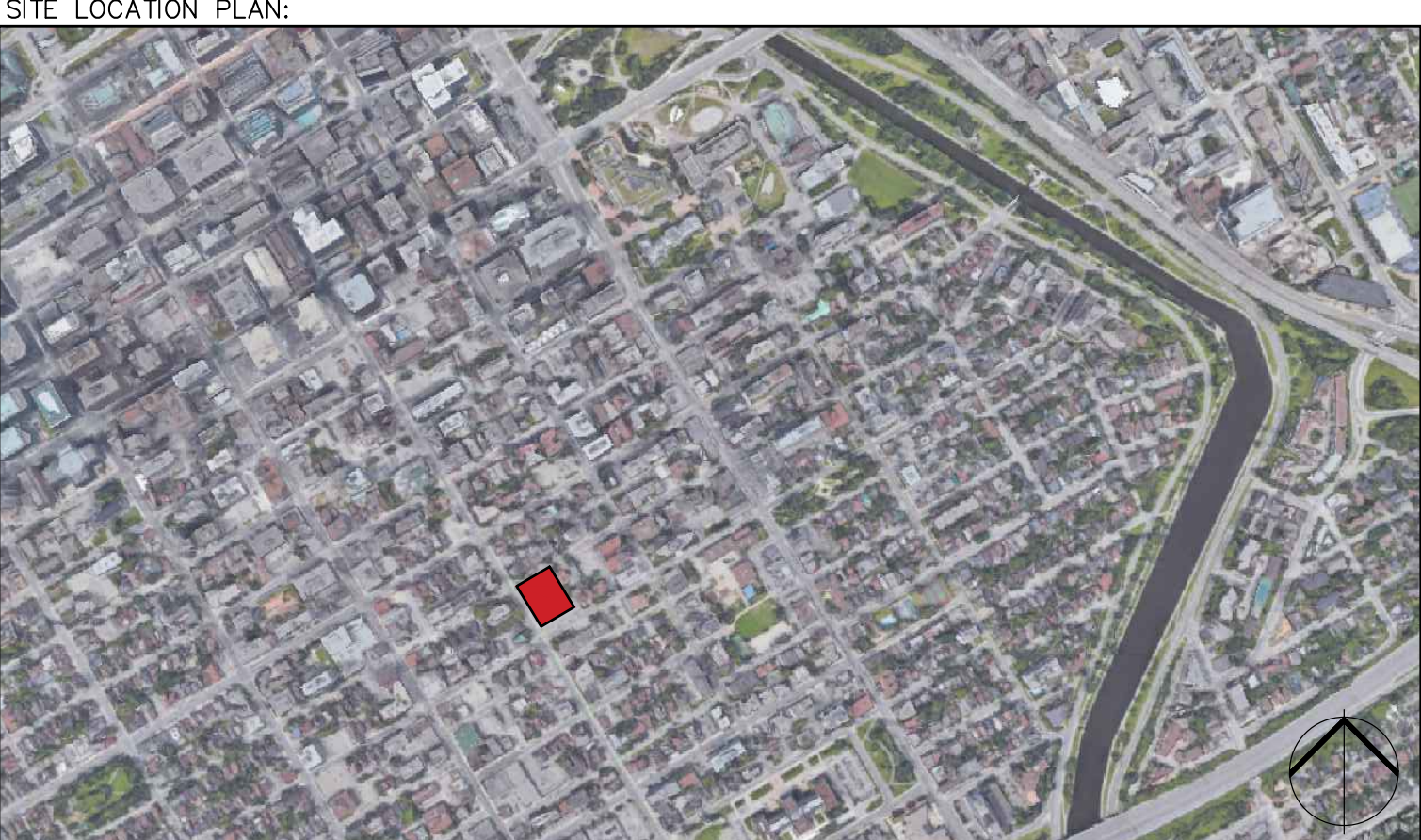
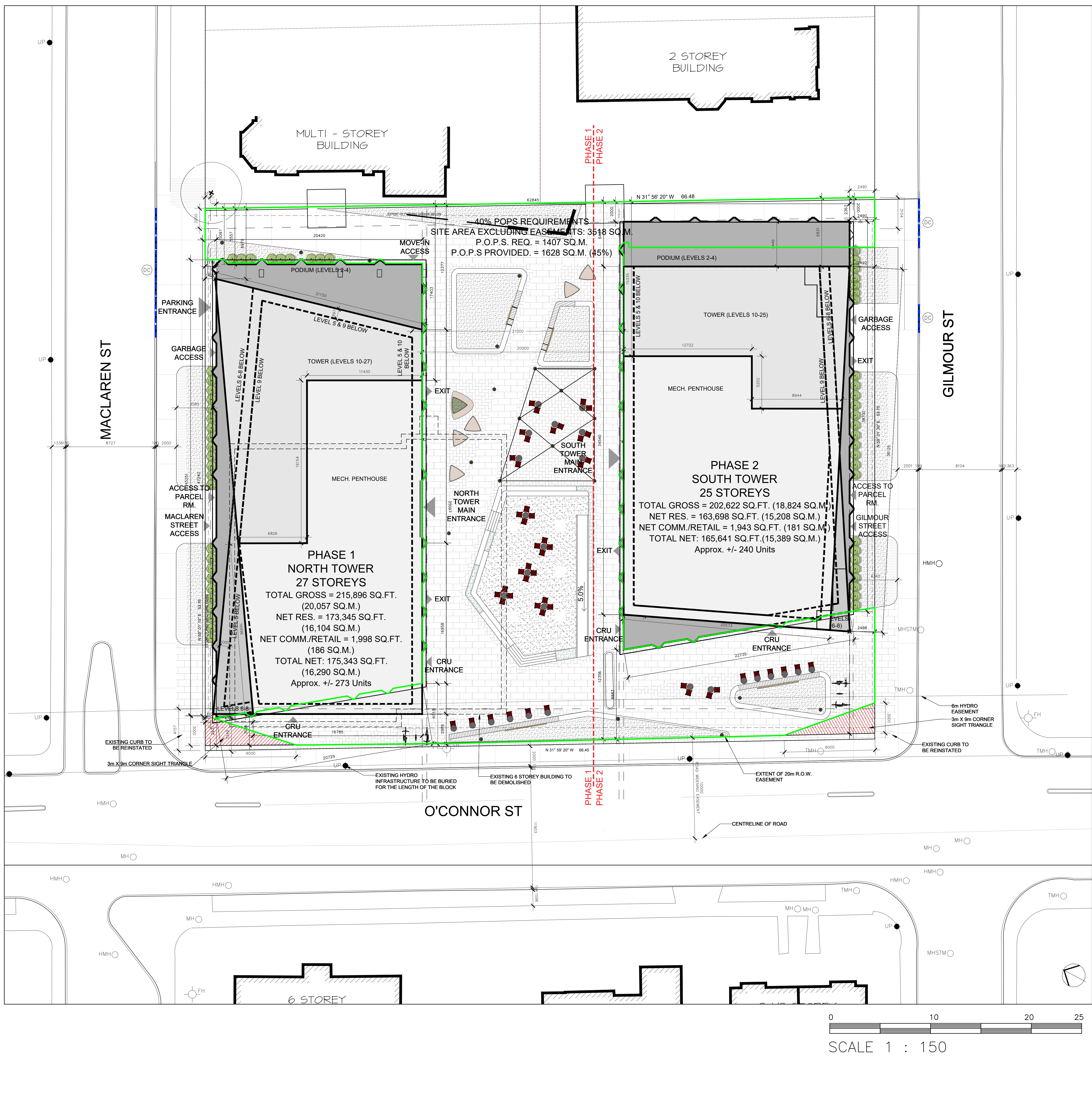
**Module 1.3 - Location Triggers**

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?	No
Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)?	No
Location Trigger Met?	No

**Module 1.4 - Safety Triggers**

Posted Speed Limit on any boundary road	<80 km/h
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?	No
A proposed driveway is 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) or within auxiliary lanes of an intersection?	Yes
Does the proposed driveway make use of an existing median break that serves an existing site?	No
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	No
Does the development include a drive-thru facility?	No
Safety Trigger Met?	Yes





NOTE: ALL EXISTING SITE INFORMATION AS PER SITE SURVEY PLAN DATED MAY 26, 2020 AND PREPARED BY STANTEC GEOMATICS LTD

LEGAL DESCRIPTION:  
TOPOGRAPHIC SKETCH OF LOTS 3, 4, 5 AND 6 (EAST OF O'CONNOR STREET)  
LOT 44 (SOUTH OF MACLAREN STREET) AND  
LOT 44 (NORTH OF GILMOUR STREET), REGISTERED PLAN 15588  
CITY OF OTTAWA

ZONING NOTES			
CURRENT ZONING: NORTH PARCEL			
DEVELOPMENT STATS		REQUIRED	EXISTING BLDG.
LOT AREA (INCLUDES R.O.W. EASEMENT)			3,573 m <sup>2</sup>
LOT WIDTH			66.4m
LOT DEPTH			53.7m
UNITS			513
TOTAL UNITS			513
O'CONNOR SETBACK		MIN. 2.4m	VARIES, MIN. 1.5m
MACLAREN SETBACK		MIN. 0.5m	VARIES, MIN. 1.0m
REAR YARD SETBACK		MIN. 2.0m	VARIES, MIN. 2.0m
GILMOUR SETBACK		MIN. 2.49m	VARIES, MIN. 2.49m
BUILDING HEIGHTS			
4 STOREY PODIUM			+/- 20 m
27 STOREY TOWER			+/- 96 m
25 STOREY TOWER			+/- 90 m
BUILDING AREA			
NORTH TOWER PLATE AREA			+/- 7,814 sq.ft. (726 sq.m.)
SOUTH TOWER PLATE AREA			+/- 7,924 sq.ft. (736 sq.m.)
TOTAL GROSS			+/- 418,518 sq.ft. (38,882 sq.m.)
TOTAL NET (RESIDENTIAL + COMMERCIAL/RETAIL)			+/- 340,984 sq.ft. (31,678 sq.m.)
GROSS FLOOR AREA (city def.)			+/- 340,984 sq.ft. (31,678 sq.m.)

UNIT RATIOS		PROPOSED	
PHASE 1 - NORTH BUILDING			
TOTAL UNIT COUNT			273
STUDIOS		35	13%
1 BEDROOM		144	53%
1 BEDROOM + DEN		6	2%
2 BEDROOM		85	31%
2 BEDROOM + DEN		3	1%
PHASE 2 - SOUTH BUILDING			
TOTAL UNIT COUNT			240
STUDIOS		21	9%
1 BEDROOM		142	59%
1 BEDROOM + DEN		11	5%
2 BEDROOM		53	22%
2 BEDROOM + DEN		13	5%

AMENITY SPACE REQUIREMENTS: 6 m<sup>2</sup> REQUIRED PER UNIT

PHASE 1 (NORTH BUILDING)  
(273 X 6 SQ.M. = 1,638 SQ.M. REQUIRED AMENITY SPACE)  
(819 SQ.M. REQUIRED TO BE COMMON AMENITY SPACE)

PHASE 2 (SOUTH BUILDING)  
(240 X 6 SQ.M. = 1,440 SQ.M. REQUIRED AMENITY SPACE)  
(720 SQ.M. REQUIRED TO BE COMMON AMENITY SPACE)

PHASE 1&2 COMBINED (NORTH & SOUTH BUILDINGS)  
(513 X 6 SQ.M. = 3,078 SQ.M. REQUIRED AMENITY SPACE)  
(1,539 SQ.M. REQUIRED TO BE COMMON AMENITY SPACE)

PROVIDED AMENITY SPACE	
PHASE 1 (NORTH BUILDING): 2,294 SQ.M. PROVIDED AMENITY SPACE 1,624 SQ.M. PROVIDED COMMON AMENITY SPACE	
PHASE 2 (SOUTH BUILDING): 1,644 SQ.M. PROVIDED AMENITY SPACE 1,135 SQ.M. PROVIDED COMMON AMENITY SPACE	
PHASE 1 & 2 COMBINED (NORTH & SOUTH BUILDINGS): 3,938 SQ.M. PROVIDED AMENITY SPACE 2,759 SQ.M. PROVIDED COMMON AMENITY SPACE	

PARKING REQUIREMENTS:	
PHASE 1 (NORTH BUILDING): 167 RESIDENTIAL PARKING SPACES PROVIDED FOR 273 UNITS (0.61 /UNIT) (PARKING LEVELS P1-P4)	
PHASE 2 (SOUTH BUILDING): 100 RESIDENTIAL PARKING SPACES PROVIDED FOR 240 UNITS (0.42 /UNIT) (PARKING LEVELS P1-P4)	
PHASE 1 & 2 COMBINED (NORTH & SOUTH BUILDINGS): 267 RESIDENTIAL PARKING SPACES PROVIDED FOR 513 UNITS (0.52 /UNIT) (PARKING LEVELS P1-P4)	
PROVIDED VISITOR PARKING	
PHASE 1 (NORTH BUILDING): 28 VISITOR PARKING SPACES PROVIDED FOR 273 UNITS (0.1 /UNIT) (PARKING LEVEL P1)	
PHASE 2 (SOUTH BUILDING): 24 VISITOR PARKING SPACES PROVIDED FOR 240 UNITS (0.1 /UNIT) (PARKING LEVEL P1)	
PHASE 1 & 2 COMBINED (NORTH & SOUTH BUILDINGS): 52 VISITOR PARKING SPACES PROVIDED FOR 513 UNITS (0.1 /UNIT) (PARKING LEVEL P1)	

BICYCLE PARKING REQUIREMENTS: 513 * 0.5 = 257	
PROVIDED BICYCLE PARKING	
514 (146 VERTICAL + 356 HORIZONTAL) BICYCLE PARKING SPACES PROVIDED FOR 513 UNITS (1.0/UNIT) * LOCATED IN UNDERGROUND PARKING GARAGE, AT GROUND LEVEL (INT.), AND AT GRADE (EXT.)	
PRIVATELY OWNED PUBLIC SPACE REQUIREMENTS: 40%	
P.O.P.S	
TOTAL SITE AREA EXCLUDING EASEMENTS: 3518 SQ.M. 3518 X 0.40 = 1407 SQ.M. OF P.O.P.S REQUIRED 1628 SQ.M. OF P.O.P.S PROVIDED	

LEGEND:

- EXISTING BUILDING
- SITE TRIANGLE
- FIRE ROUTE
- BUILDING TO BE DEMOLISHED
- CURB TO BE REMOVED AND REINSTATED
- PROPERTY BOUNDARY
- SETBACK
- PARKING GARAGE BELOW
- EXTENT OF PRIVATELY OWNED PUBLIC SPACE
- EXISTING MAN HOLE
- EXISTING TRAFFIC LIGHT
- CONC. CURB DETAIL TO CITY
- EXISTING FIRE HYDRANT
- OF OTTAWA STANDARDS
- BIKE PARKING SPACE
- EXISTING BOLLARD
- EXISTING TRAFFIC SIGNAL LIGHT
- EXISTING UTILITY POLE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- SIGNAGE FOR ACCESSIBLE PARKING SPACE
- FRS SIGNAGE FOR FIRE ROUTE ACCESS
- EXISTING SIGN
- EXISTING LIGHT POLE
- NEW LIGHT POLE
- PROPOSED WALL MOUNTED LIGHT
- EXISTING STREET LIGHTING BOX
- EXISTING TRAFFIC SIGNAL BOX

no.	date	revision
3	25-12-01	REISSUED FOR REZONING
2	25-08-01	ISSUED FOR SIURP
1	25-01-31	ISSUED FOR REZONING

It is the responsibility of the appropriate contractor to check and verify all dimensions on site and report all errors and/or omissions to the architect.

All contractors must comply with all pertinent codes and by-laws.

Do not scale drawings.

This drawing may not be used for construction until signed.

Copyright reserved.



Hobin Architecture Incorporated  
63 Pamela Street  
Ottawa, Ontario  
Canada K1S 3K7  
T: 613 238 7200  
F: 613 235 2005  
E: info@hobinarch.com  
hobinarch.com

HOBIN ARCHITECTURE

PROJECT/LOCATION:  
267 O'CONNOR  
OTTAWA, ON.

DRAWING TITLE:  
SITE PLAN

DRAWN BY: DATE: SCALE:  
PB 24-12-24 1:150

PROJECT:  
1938

DRAWING NO.:  
A100

REVISION NO.:



## **Appendix B:**

**Traffic Count Data**



# Transportation Services - Traffic Services

## Turning Movement Count - Full Study Peak Hour Diagram

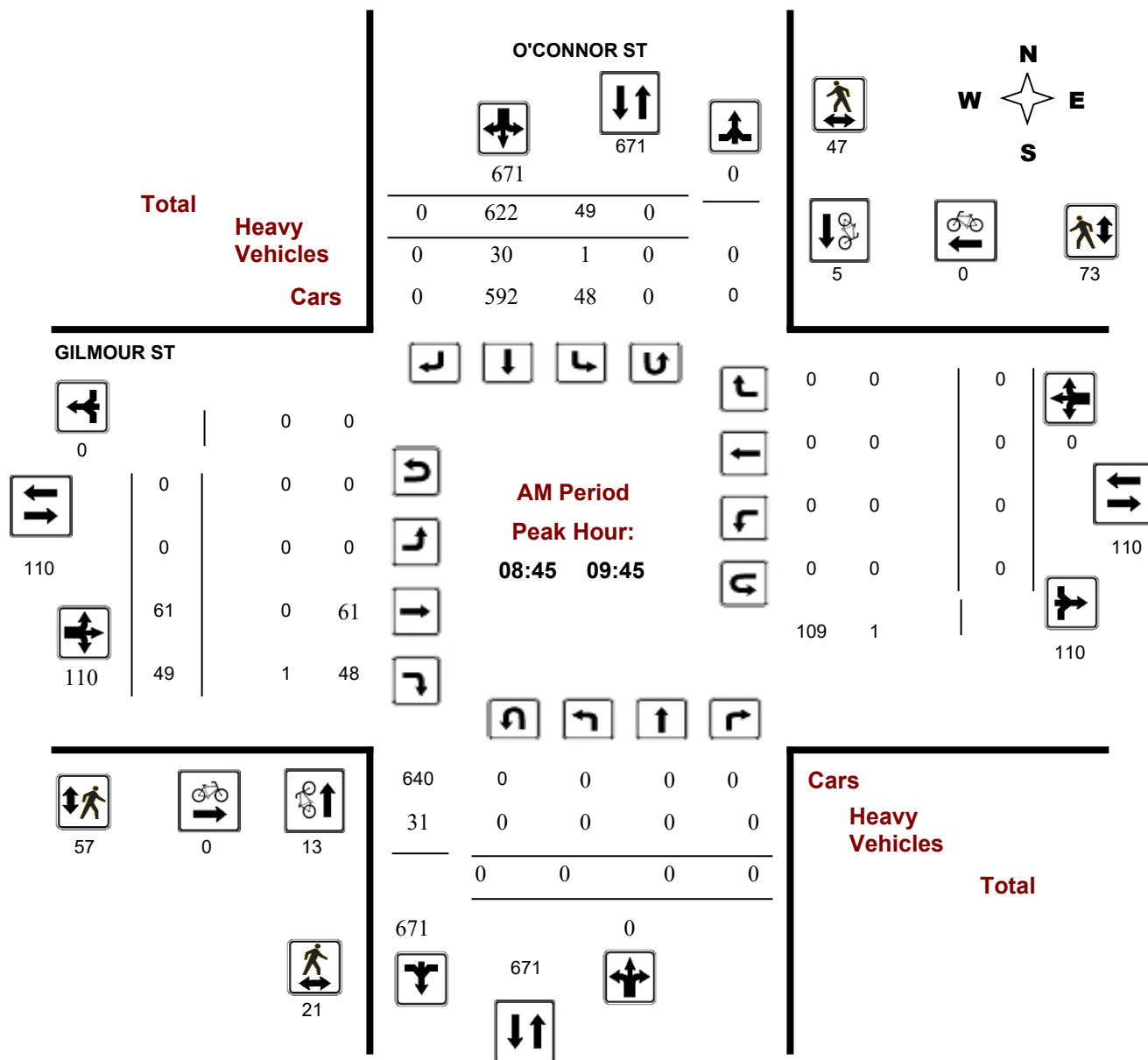
### GILMOUR ST @ O'CONNOR ST

**Survey Date:** Tuesday, March 21, 2017

**Start Time:** 07:00

**WO No:** 36785

**Device:** Miovision

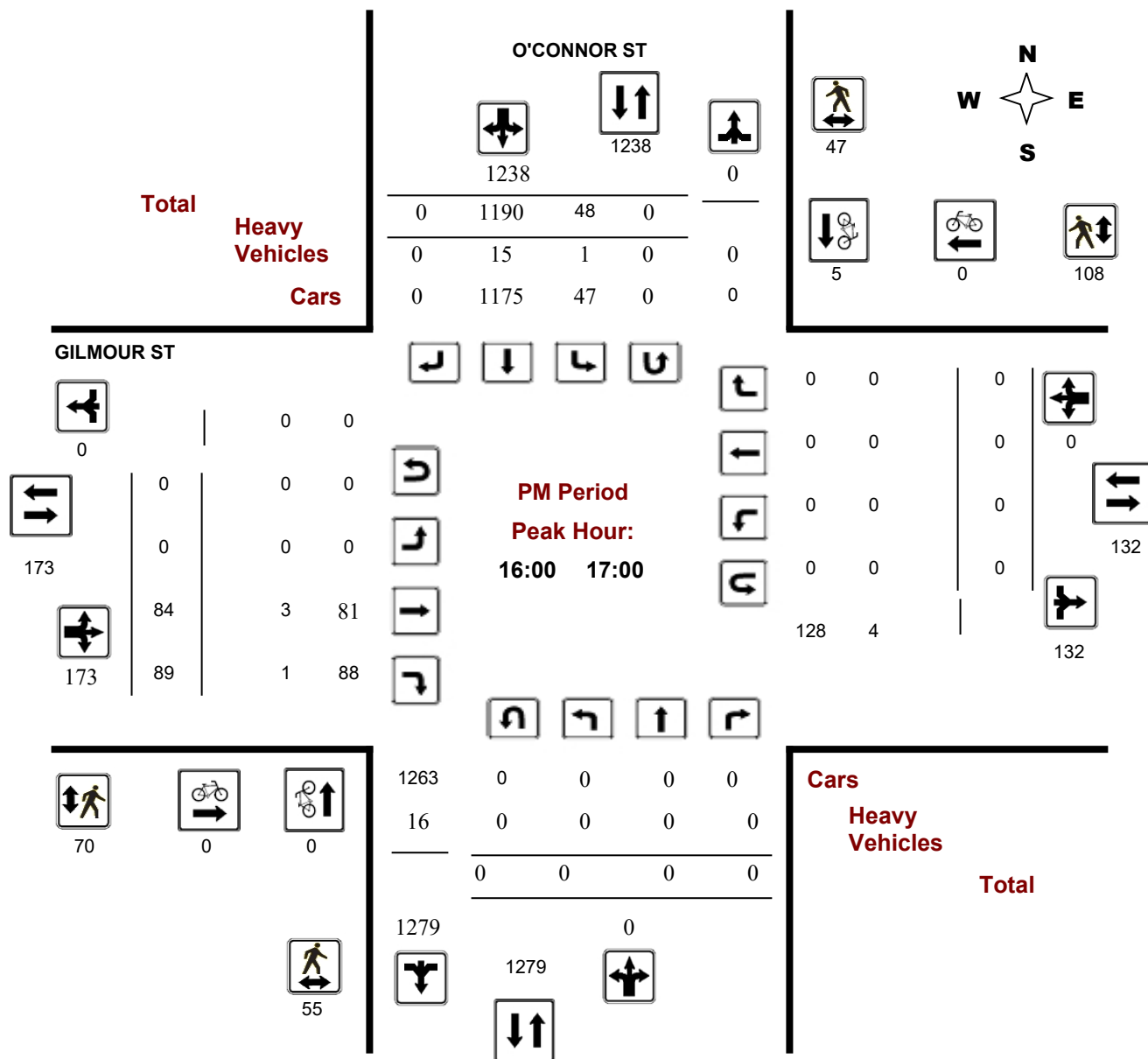


**Survey Date:** Tuesday, March 21, 2017

**Start Time:** 07:00

**WO No:** 36785

**Device:** Miovision





# 5299373 - Metcalfe and Gladstone - Apr - 4th - TMC

Tue Apr 4, 2017

AM Peak (8AM - 9AM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 397175, Location: 45.413818, -75.689574, Site Code: 36833103



Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	West Eastbound						East Westbound						South Northbound						North Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-04-04 8:00AM	30	39	0	0	69	19	0	26	6	0	32	23	10	277	2	0	289	14	0	0	0	0	0	11	390
8:15AM	21	34	0	0	55	13	0	36	2	0	38	11	12	326	4	0	342	16	0	0	0	0	0	19	435
8:30AM	21	37	0	0	58	19	0	28	0	0	28	6	9	261	4	0	274	9	0	0	0	0	0	10	360
8:45AM	18	30	0	0	48	15	0	32	5	0	37	20	11	287	4	1	303	13	0	0	0	0	0	18	388
<b>Total</b>	90	140	0	0	230	66	0	122	13	0	135	60	42	1151	14	1	1208	52	0	0	0	0	0	58	1573
<b>% Approach</b>	39.1%	60.9%	0%	0%	-	-	0%	90.4%	9.6%	0%	-	-	3.5%	95.3%	1.2%	0.1%	-	-	0%	0%	0%	0%	-	-	-
<b>% Total</b>	5.7%	8.9%	0%	0%	14.6%	-	0%	7.8%	0.8%	0%	8.6%	-	2.7%	73.2%	0.9%	0.1%	76.8%	-	0%	0%	0%	0%	0%	-	-
<b>PHF</b>	0.750	0.897	-	-	0.833	-	-	0.847	0.542	-	0.888	-	0.875	0.883	0.875	0.250	0.883	-	-	-	-	-	-	-	0.904
<b>Lights and Motorcycles</b>	86	128	0	0	214	-	0	114	13	0	127	-	41	1145	14	1	1201	-	0	0	0	0	0	-	1542
<b>% Lights and Motorcycles</b>	95.6%	91.4%	0%	0%	93.0%	-	0%	93.4%	100%	0%	94.1%	-	97.6%	99.5%	100%	100%	99.4%	-	0%	0%	0%	0%	-	-	98.0%
<b>Heavy</b>	4	9	0	0	13	-	0	7	0	0	7	-	0	5	0	0	5	-	0	0	0	0	0	-	25
<b>% Heavy</b>	4.4%	6.4%	0%	0%	5.7%	-	0%	5.7%	0%	0%	5.2%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	-	-	1.6%
<b>Bicycles on Road</b>	0	3	0	0	3	-	0	1	0	0	1	-	1	1	0	0	2	-	0	0	0	0	0	-	6
<b>% Bicycles on Road</b>	0%	2.1%	0%	0%	1.3%	-	0%	0.8%	0%	0%	0.7%	-	2.4%	0.1%	0%	0%	0.2%	-	0%	0%	0%	0%	-	-	0.4%
<b>Pedestrians</b>	-	-	-	-	-	66	-	-	-	-	-	60	-	-	-	-	-	52	-	-	-	-	-	58	
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

# 5299373 - Metcalfe and Gladstone - Apr - 4th - TMC

Tue Apr 4, 2017

PM Peak (4:15PM - 5:15PM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 397175, Location: 45.413818, -75.689574, Site Code: 36833103

Provided by: City of Ottawa  
100 Constellation Dr, Nepean, ON, K2G 5J9, CA



Leg Direction	West Eastbound						East Westbound						South Northbound						North Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-04-04 4:15PM	27	49	0	0	76	12	0	38	4	0	42	10	8	99	10	0	117	9	0	0	0	0	0	14	235
4:30PM	22	73	0	0	95	15	0	41	3	0	44	6	11	86	2	0	99	7	0	0	0	0	0	12	238
4:45PM	31	47	0	0	78	15	0	25	3	0	28	13	20	79	4	0	103	20	0	0	0	0	0	13	209
5:00PM	27	46	0	0	73	20	0	33	7	0	40	14	20	86	1	0	107	14	0	0	0	0	0	12	220
<b>Total</b>	107	215	0	0	322	62	0	137	17	0	154	43	59	350	17	0	426	50	0	0	0	0	0	51	902
<b>% Approach</b>	33.2%	66.8%	0%	0%	-	-	0%	89.0%	11.0%	0%	-	-	13.8%	82.2%	4.0%	0%	-	-	0%	0%	0%	0%	-	-	-
<b>% Total</b>	11.9%	23.8%	0%	0%	35.7%	-	0%	15.2%	1.9%	0%	17.1%	-	6.5%	38.8%	1.9%	0%	47.2%	-	0%	0%	0%	0%	0%	-	-
<b>PHF</b>	0.863	0.736	-	-	0.847	-	-	0.835	0.607	-	0.875	-	0.738	0.884	0.425	-	0.910	-	-	-	-	-	-	-	0.947
<b>Lights and Motorcycles</b>	106	207	0	0	313	-	0	127	16	0	143	-	59	346	17	0	422	-	0	0	0	0	0	-	878
<b>% Lights and Motorcycles</b>	99.1%	96.3%	0%	0%	97.2%	-	0%	92.7%	94.1%	0%	92.9%	-	100%	98.9%	100%	0%	99.1%	-	0%	0%	0%	0%	-	-	97.3%
<b>Heavy</b>	1	7	0	0	8	-	0	6	1	0	7	-	0	4	0	0	4	-	0	0	0	0	0	-	19
<b>% Heavy</b>	0.9%	3.3%	0%	0%	2.5%	-	0%	4.4%	5.9%	0%	4.5%	-	0%	1.1%	0%	0%	0.9%	-	0%	0%	0%	0%	-	-	2.1%
<b>Bicycles on Road</b>	0	1	0	0	1	-	0	4	0	0	4	-	0	0	0	0	0	-	0	0	0	0	0	-	5
<b>% Bicycles on Road</b>	0%	0.5%	0%	0%	0.3%	-	0%	2.9%	0%	0%	2.6%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	-	-	0.6%
Pedestrians	-	-	-	-	-	62	-	-	-	-	-	43	-	-	-	-	-	50	-	-	-	-	-	51	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%

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

# 5299374 - Gladstone Ave and O'Connor St - TMC

Tue Mar 21, 2017

AM Peak (8AM - 9AM)

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 393991, Location: 45.413048, -75.691547, Site Code: 36793103



Provided by: City of Ottawa

100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	West Eastbound						East Westbound						South Northbound						North Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-03-21																									
8:00AM	0	57	28	0	85	17	12	25	0	0	37	19	0	4	0	0	4	17	4	162	17	0	183	13	309
8:15AM	0	62	27	0	89	17	7	41	0	0	48	17	0	8	0	0	8	15	3	125	7	0	135	9	280
8:30AM	0	45	38	0	83	20	8	38	0	0	46	29	0	7	0	0	7	21	4	163	7	0	174	19	310
8:45AM	0	61	24	0	85	24	5	41	0	0	46	27	0	6	0	0	6	19	4	144	17	0	165	12	302
<b>Total</b>	0	225	117	0	342	78	32	145	0	0	177	92	0	25	0	0	25	72	15	594	48	0	657	53	1201
<b>% Approach</b>	0%	65.8%	34.2%	0%	-	-	18.1%	81.9%	0%	0%	-	-	0%	100%	0%	0%	-	-	2.3%	90.4%	7.3%	0%	-	-	-
<b>% Total</b>	0%	18.7%	9.7%	0%	28.5%	-	2.7%	12.1%	0%	0%	14.7%	-	0%	2.1%	0%	0%	2.1%	-	1.2%	49.5%	4.0%	0%	54.7%	-	-
<b>PHF</b>	-	0.907	0.770	-	0.961	-	0.667	0.884	-	-	0.922	-	-	0.781	-	-	0.781	-	0.938	0.911	0.706	-	0.898	-	0.969
<b>Lights and Motorcycles</b>	0	212	116	0	328	-	30	133	0	0	163	-	0	0	0	0	0	-	15	578	45	0	638	-	1129
<b>% Lights and Motorcycles</b>	0%	94.2%	99.1%	0%	95.9%	-	93.8%	91.7%	0%	0%	92.1%	-	0%	0%	0%	0%	0%	-	100%	97.3%	93.8%	0%	97.1%	-	94.0%
<b>Heavy</b>	0	10	1	0	11	-	2	7	0	0	9	-	0	0	0	0	0	-	0	16	3	0	19	-	39
<b>% Heavy</b>	0%	4.4%	0.9%	0%	3.2%	-	6.3%	4.8%	0%	0%	5.1%	-	0%	0%	0%	0%	0%	-	0%	2.7%	6.3%	0%	2.9%	-	3.2%
<b>Bicycles on Road</b>	0	3	0	0	3	-	0	5	0	0	5	-	0	25	0	0	25	-	0	0	0	0	0	-	33
<b>% Bicycles on Road</b>	0%	1.3%	0%	0%	0.9%	-	0%	3.4%	0%	0%	2.8%	-	0%	100%	0%	0%	100%	-	0%	0%	0%	0%	0%	-	2.7%
<b>Pedestrians</b>	-	-	-	-	-	78	-	-	-	-	-	92	-	-	-	-	-	72	-	-	-	-	-	53	
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

# 5299374 - Gladstone Ave and O'Connor St - TMC

Tue Mar 21, 2017

PM Peak (3:45PM - 4:45PM) - Overall Peak Hour

All Classes (Lights and Motorcycles, Heavy, Pedestrians, Bicycles on Road)

All Movements

ID: 393991, Location: 45.413048, -75.691547, Site Code: 36793103

Provided by: City of Ottawa  
100 Constellation Dr, Nepean, ON, K2G 5J9, CA

Leg Direction	West Eastbound						East Westbound						South Northbound						North Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2017-03-21 3:45PM	0	53	52	0	105	14	8	28	0	0	36	14	0	0	0	0	0	15	5	317	19	0	341	15	482
4:00PM	0	54	55	0	109	17	6	35	0	0	41	31	0	1	0	0	1	13	9	316	19	0	344	22	495
4:15PM	0	50	43	0	93	16	5	28	0	0	33	11	0	0	0	0	0	22	8	321	21	0	350	21	476
4:30PM	0	52	45	0	97	11	8	35	0	0	43	15	0	0	0	0	0	23	10	302	19	0	331	13	471
<b>Total</b>	0	209	195	0	404	58	27	126	0	0	153	71	0	1	0	0	1	73	32	1256	78	0	1366	71	1924
<b>% Approach</b>	0%	51.7%	48.3%	0%	-	-	17.6%	82.4%	0%	0%	-	-	0%	100%	0%	0%	-	-	2.3%	91.9%	5.7%	0%	-	-	-
<b>% Total</b>	0%	10.9%	10.1%	0%	21.0%	-	1.4%	6.5%	0%	0%	8.0%	-	0%	0.1%	0%	0%	0.1%	-	1.7%	65.3%	4.1%	0%	71.0%	-	-
<b>PHF</b>	-	0.968	0.886	-	0.927	-	0.844	0.900	-	-	0.890	-	-	0.250	-	-	0.250	-	0.800	0.978	0.929	-	0.976	-	0.972
<b>Lights and Motorcycles</b>	0	204	190	0	394	-	27	118	0	0	145	-	0	0	0	0	0	-	31	1238	78	0	1347	-	1886
<b>% Lights and Motorcycles</b>	0%	97.6%	97.4%	0%	97.5%	-	100%	93.7%	0%	0%	94.8%	-	0%	0%	0%	0%	0%	-	96.9%	98.6%	100%	0%	98.6%	-	98.0%
<b>Heavy</b>	0	5	5	0	10	-	0	7	0	0	7	-	0	0	0	0	0	-	0	18	0	0	18	-	35
<b>% Heavy</b>	0%	2.4%	2.6%	0%	2.5%	-	0%	5.6%	0%	0%	4.6%	-	0%	0%	0%	0%	0%	-	0%	1.4%	0%	0%	1.3%	-	1.8%
<b>Bicycles on Road</b>	0	0	0	0	0	-	0	1	0	0	1	-	0	1	0	0	1	-	1	0	0	0	1	-	3
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0%	0.8%	0%	0%	0.7%	-	0%	100%	0%	0%	100%	-	3.1%	0%	0%	0%	0.1%	-	0.2%
Pedestrians	-	-	-	-	-	58	-	-	-	-	-	71	-	-	-	-	-	73	-	-	-	-	-	71	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

### Turning Movement Count - Full Study Peak Hour Diagram

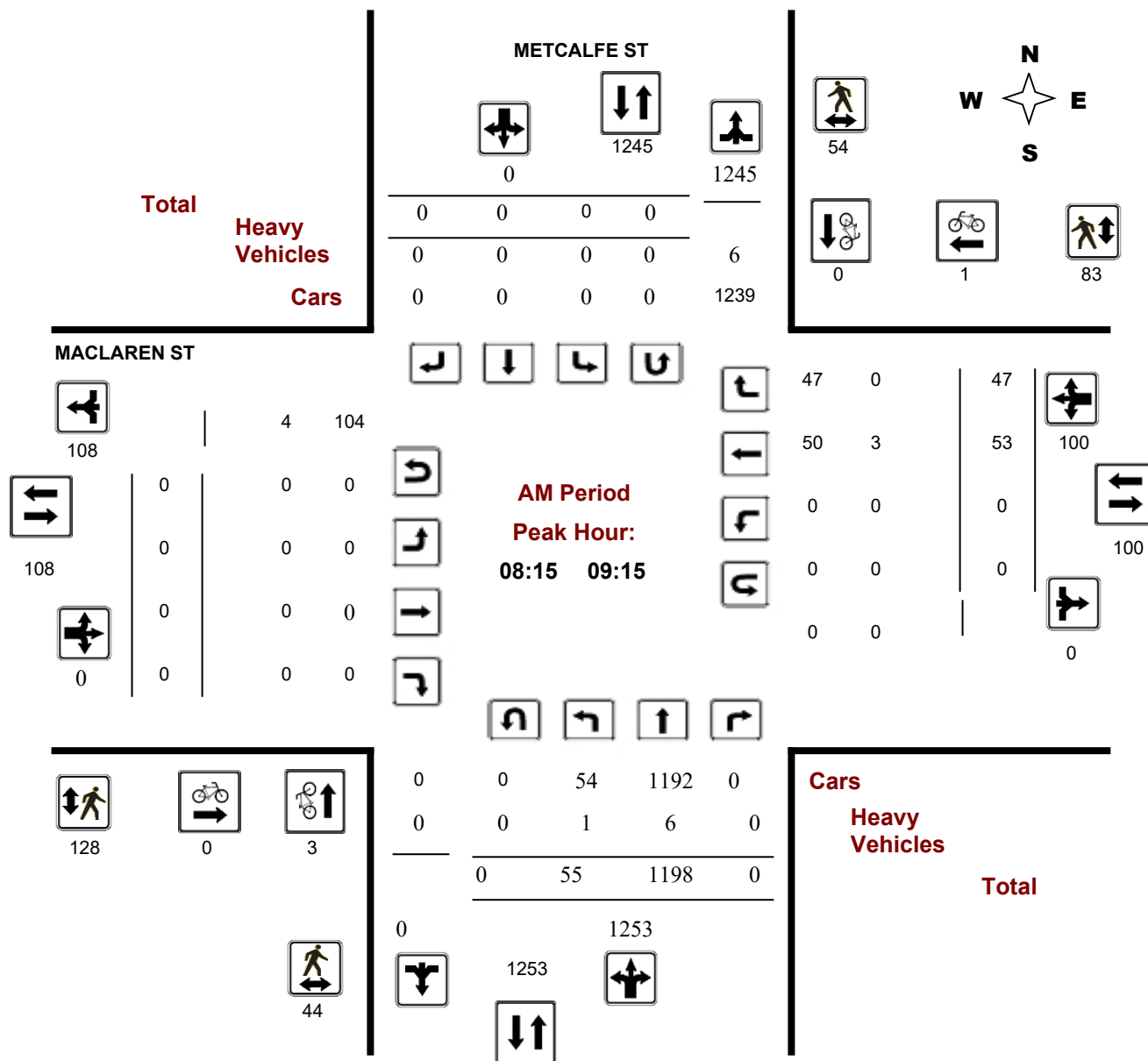
**MACLAREN ST @ METCALFE ST**

**Survey Date:** Tuesday, April 04, 2017

**Start Time:** 07:00

**WO No:** 36835

Device: Miovision



## Comments

### Turning Movement Count - Full Study Peak Hour Diagram

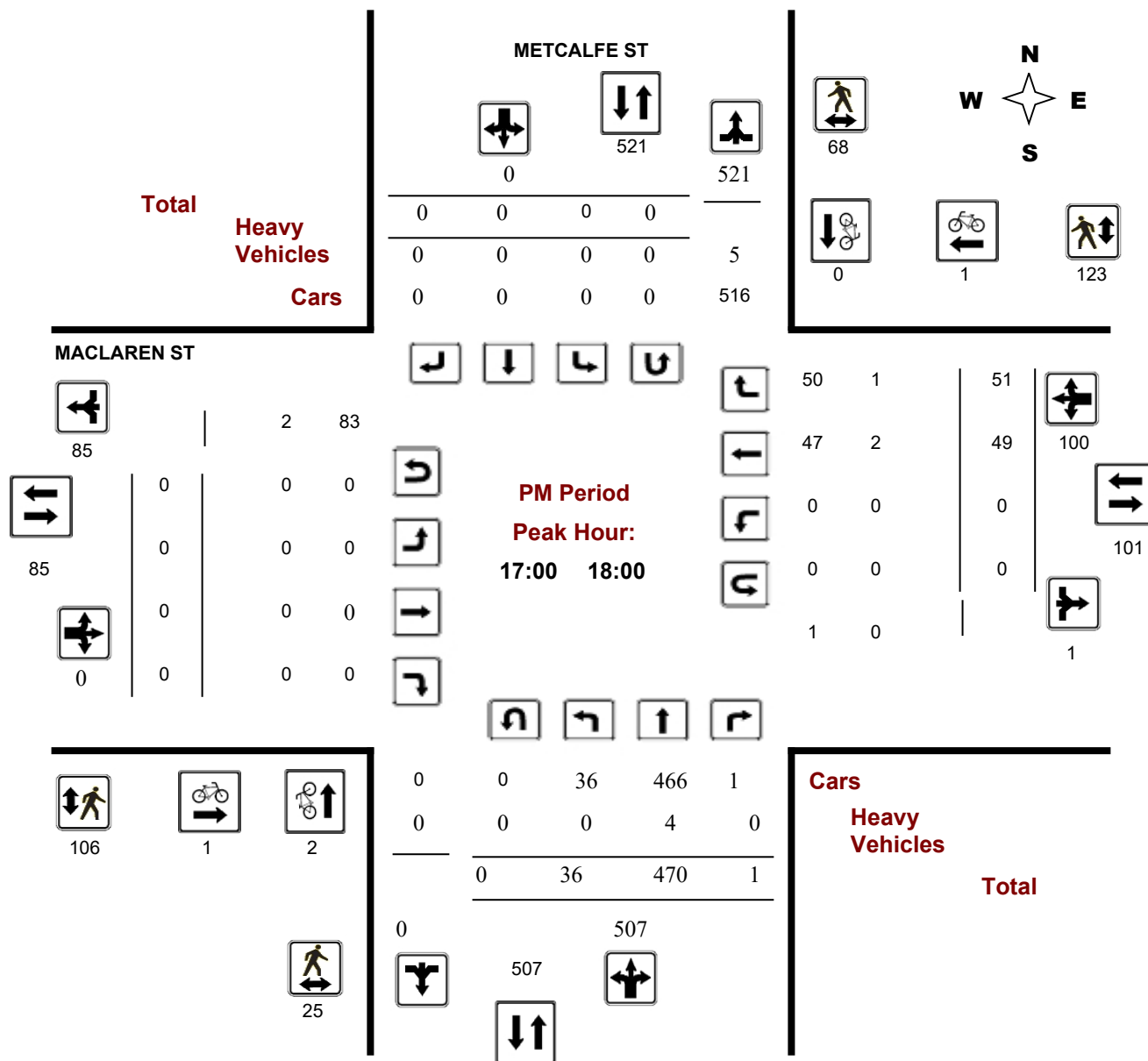
**MACLAREN ST @ METCALFE ST**

**Survey Date:** Tuesday, April 04, 2017

**Start Time:** 07:00

**WO No:** 36835

Device: Miovision



## Comments

### Turning Movement Count - Full Study Peak Hour Diagram

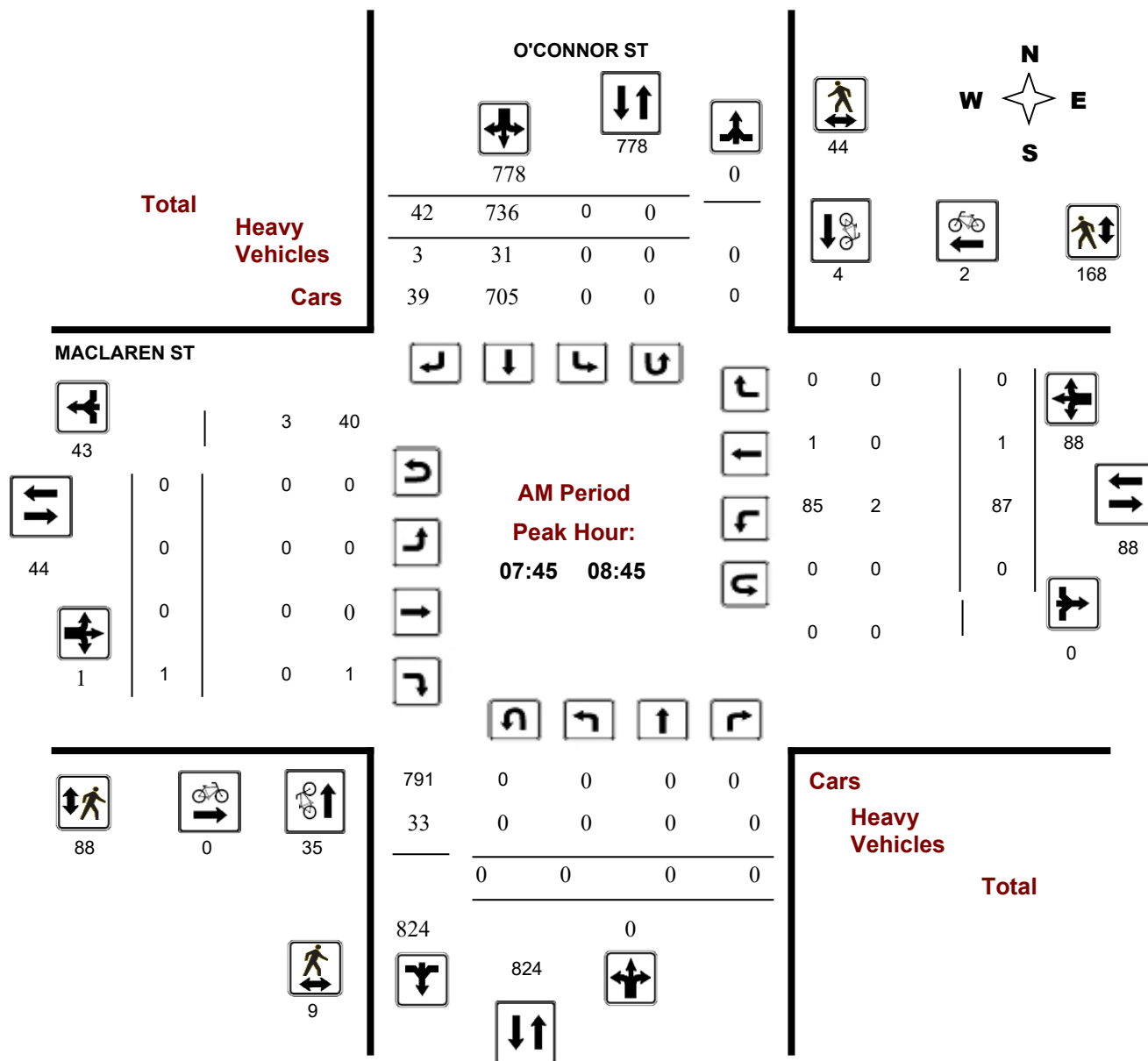
**MACLAREN ST @ O'CONNOR ST**

**Survey Date:** Thursday, March 21, 2019

**Start Time:** 07:00

**WO No:** 38457

Device: Miovision



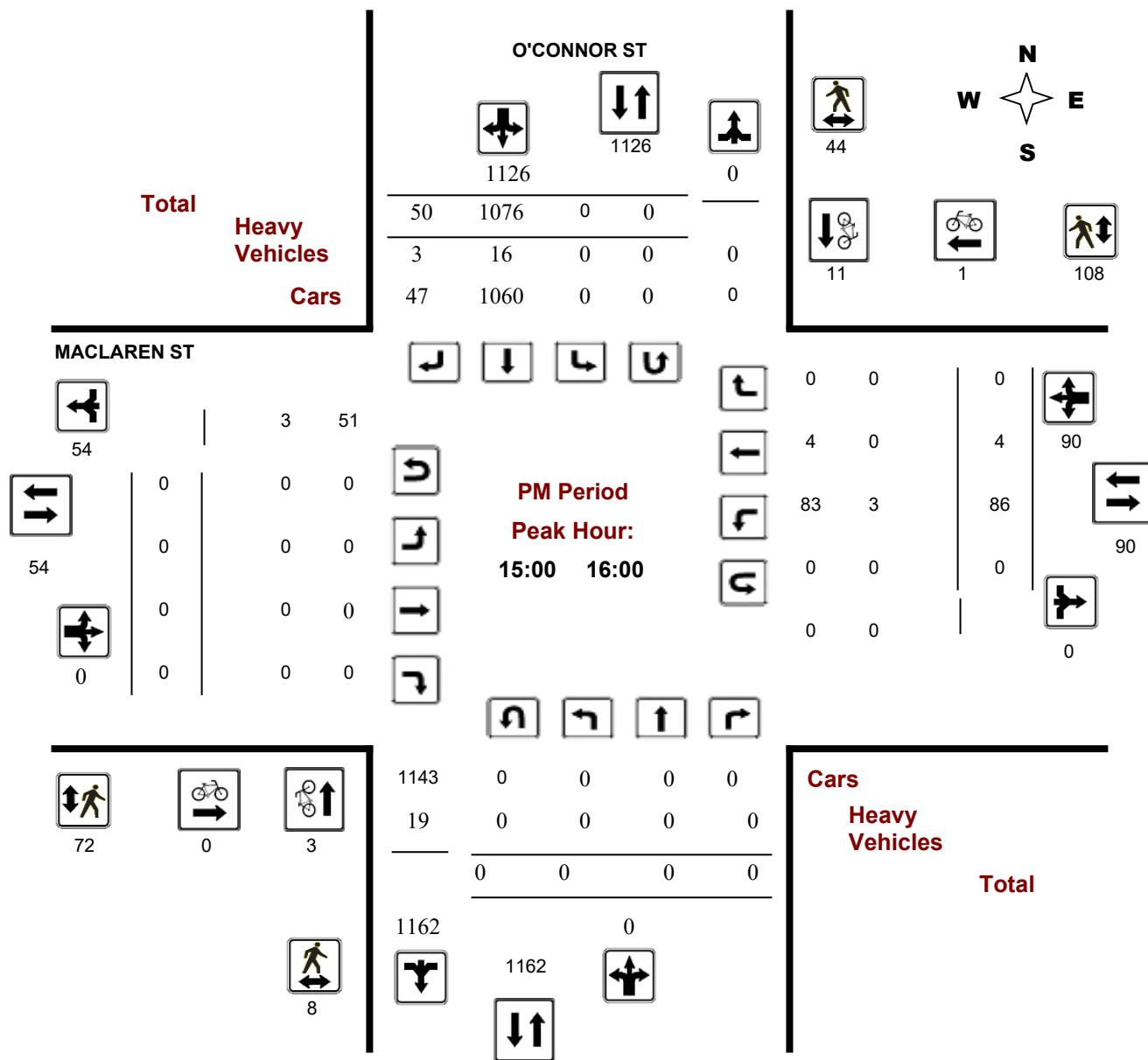
## Comments

**Survey Date:** Thursday, March 21, 2019

**Start Time:** 07:00

**WO No:** 38457

**Device:** Miovision





### Turning Movement Count - Full Study Peak Hour Diagram

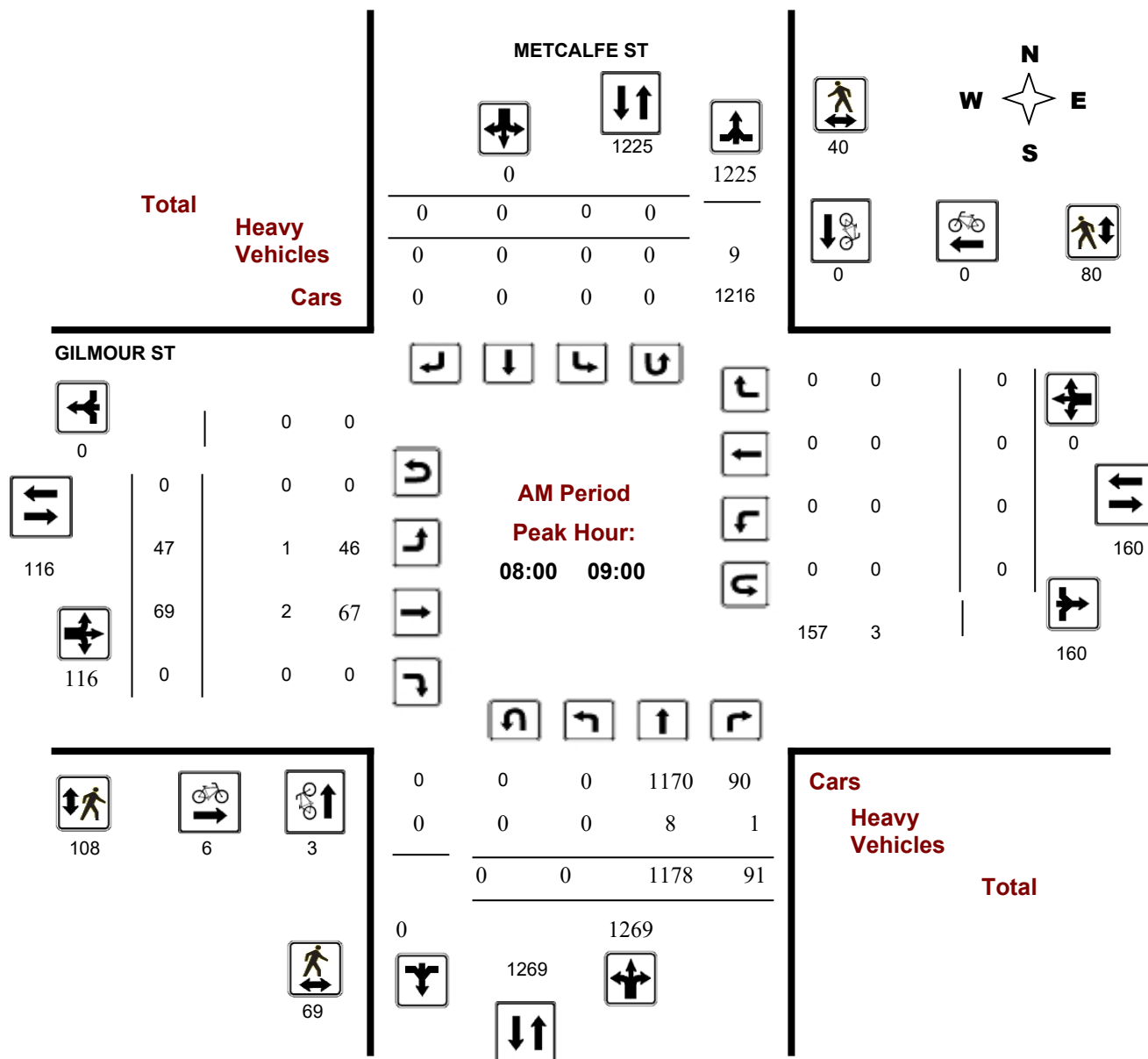
**METCALFE ST @ GILMOUR ST**

**Survey Date:** Tuesday, April 04, 2017

**Start Time:** 07:00

**WO No:** 36834

Device: Miovision



## Comments

## Turning Movement Count - Full Study Peak Hour Diagram

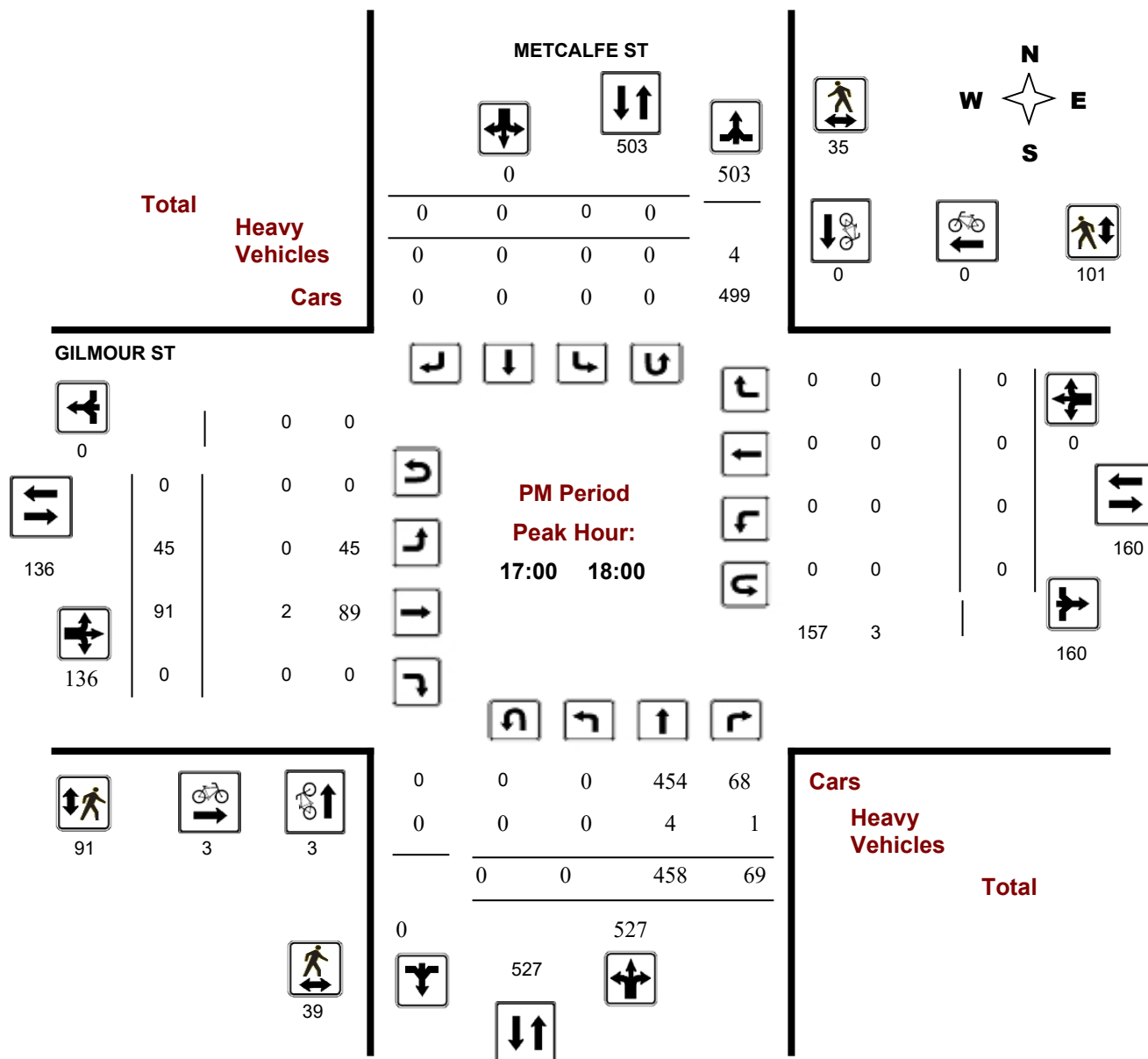
**METCALFE ST @ GILMOUR ST**

**Survey Date:** Tuesday, April 04, 2017

**Start Time:** 07:00

**WO No:** 36834

Device: Miovision



## Comments

## Turning Movement Count - Full Study Peak Hour Diagram

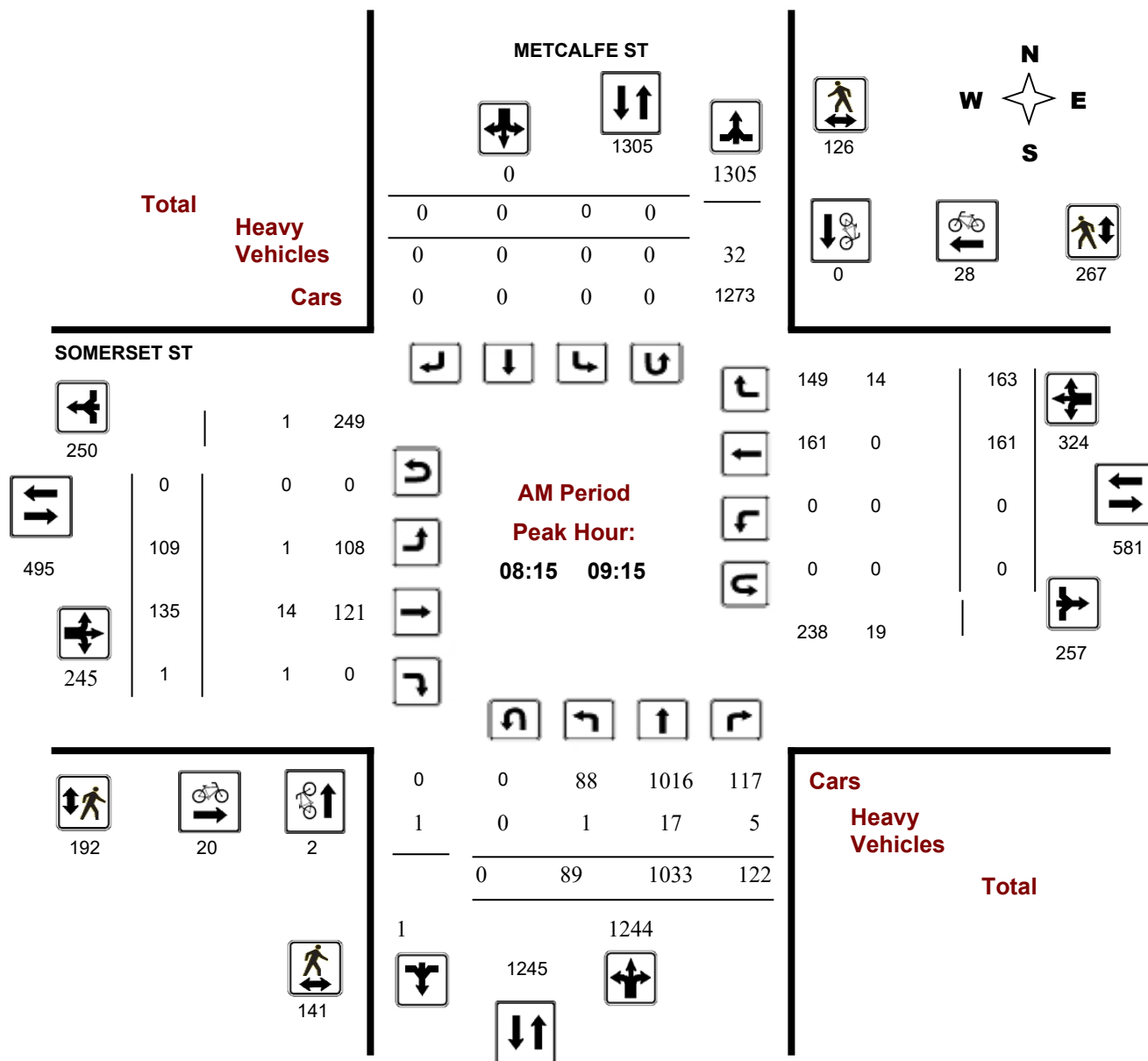
**METCALFE ST @ SOMERSET ST**

**Survey Date:** Thursday, May 02, 2019

**Start Time:** 07:00

**WO No:** 38599

Device: Miovision



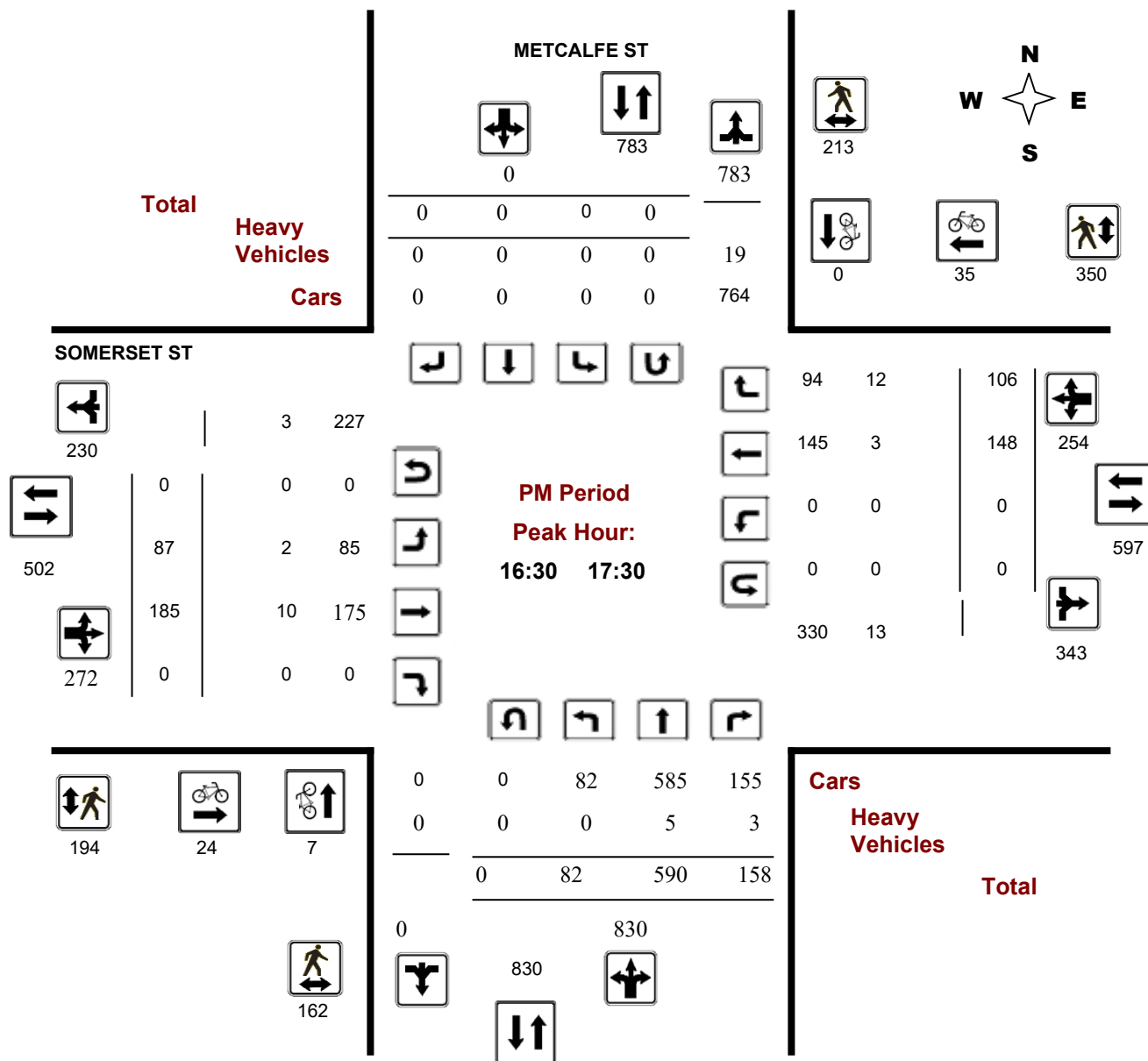
## Comments

**Survey Date:** Thursday, May 02, 2019

**Start Time:** 07:00

**WO No:** 38599

**Device:** Miovision





# Transportation Services - Traffic Services

## Turning Movement Count - Full Study Peak Hour Diagram

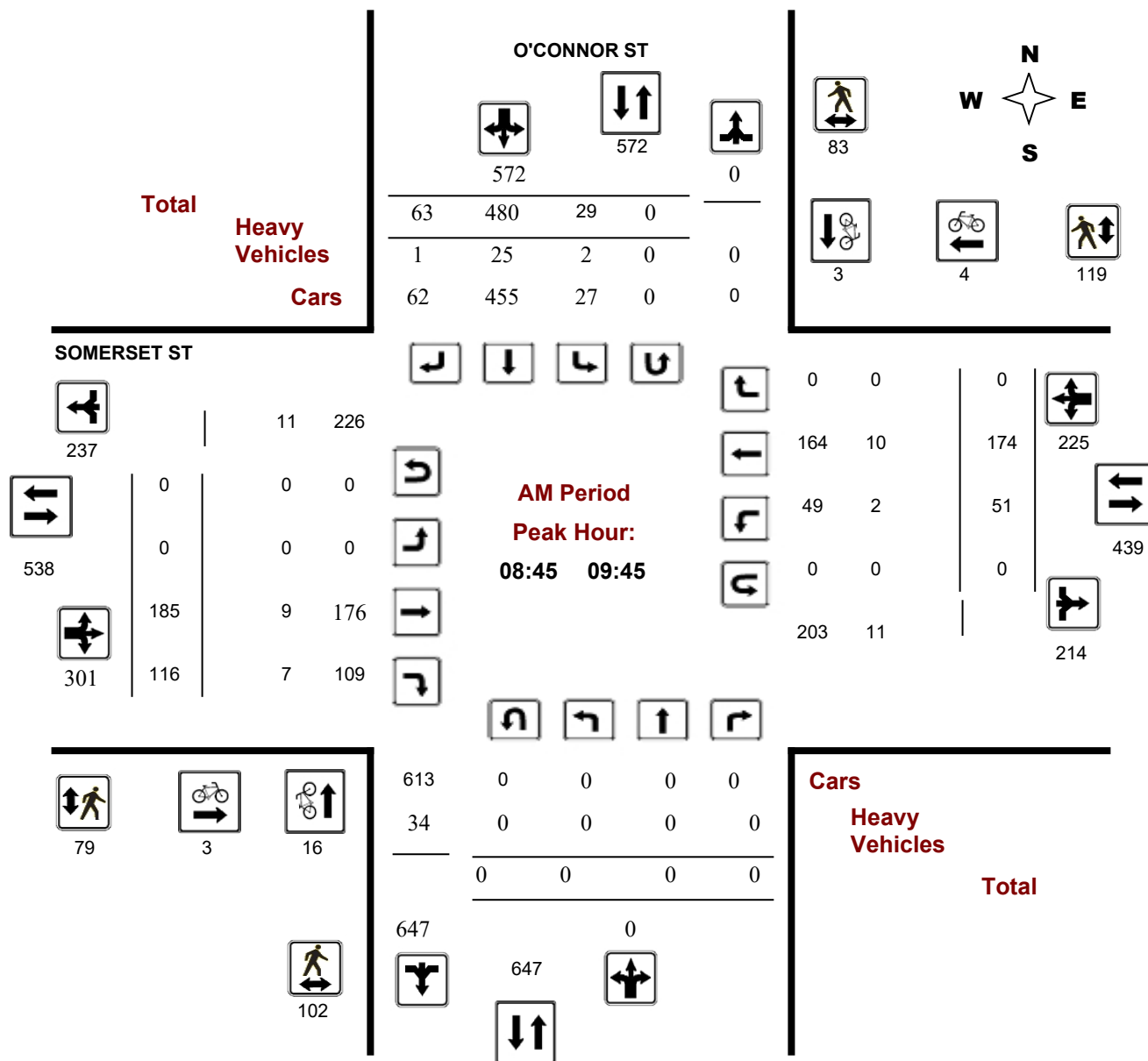
### O'CONNOR ST @ SOMERSET ST

**Survey Date:** Tuesday, March 21, 2017

**Start Time:** 07:00

**WO No:** 36787

**Device:** Miovision

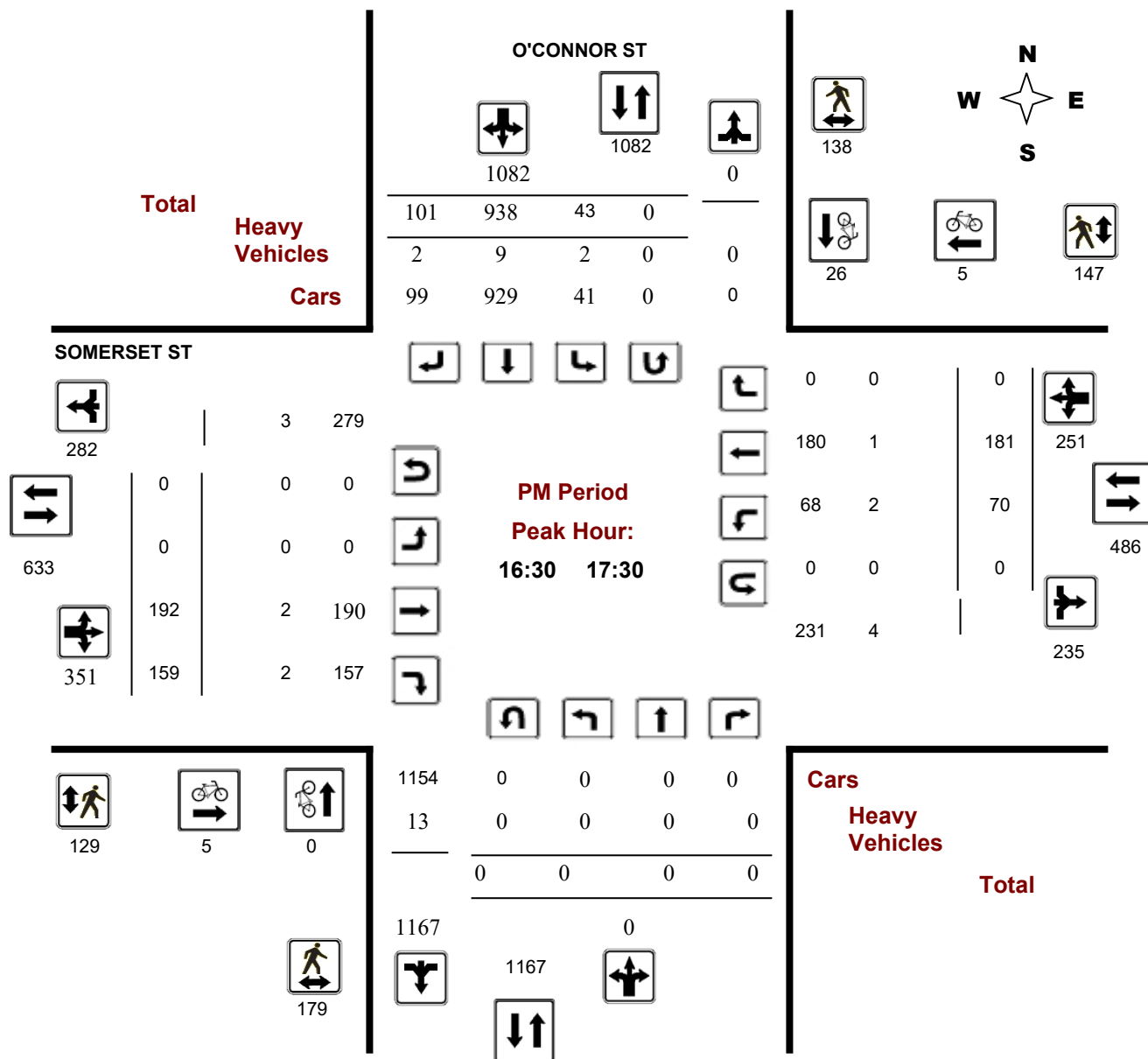


**Survey Date:** Tuesday, March 21, 2017

**Start Time:** 07:00

**WO No:** 36787

**Device:** Miovision





**Analyst:** Juan Lavin

## Total vehicle traffic

Interval starts	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:44	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	8	7	0	1	0	0	0	47	0	0	0	0	63
08:00	7	7	0	0	0	0	0	51	0	0	0	0	65
08:15	2	8	0	2	0	0	0	71	0	0	0	0	83
08:30	8	7	0	1	0	0	0	72	0	0	0	0	88

## Car traffic

Interval starts	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:44	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	8	0	0	1	0	0	0	0	0	0	0	0	9
08:00	7	0	0	0	0	0	0	0	0	0	0	0	7
08:15	2	0	0	2	0	0	0	0	0	0	0	0	4
08:30	8	0	0	1	0	0	0	1	0	0	0	0	10

## Truck traffic

[illegible]

## Bicycle traffic

Interval starts	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
07:44	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	0	7	0	0	0	0	0	47	0	0	0	0	54
08:00	0	7	0	0	0	0	0	51	0	0	0	0	58
08:15	0	8	0	0	0	0	0	71	0	0	0	0	79
08:30	0	7	0	0	0	0	0	71	0	0	0	0	78

## Pedestrian volumes

Interval starts	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
07:44	0	0	0	0	0	0	0	0	0	0	3	3	3
07:45	5	0	5	0	0	0	0	0	0	0	35	35	40
08:00	15	0	15	0	0	0	0	0	0	0	22	22	37
08:15	10	0	10	0	0	0	0	0	0	0	36	36	46
08:30	8	0	8	0	0	0	0	0	0	0	43	43	51

# Intersection Peak Hour

07:45 - 08:45

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	25	29	0	4	0	0	0	241	0	0	0	0	299
Factor	0.78	0.91	0.00	0.50	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.85
Approach Factor	0.90			0.50			0.84			0.00			

## Peak Hour Vehicle Summary

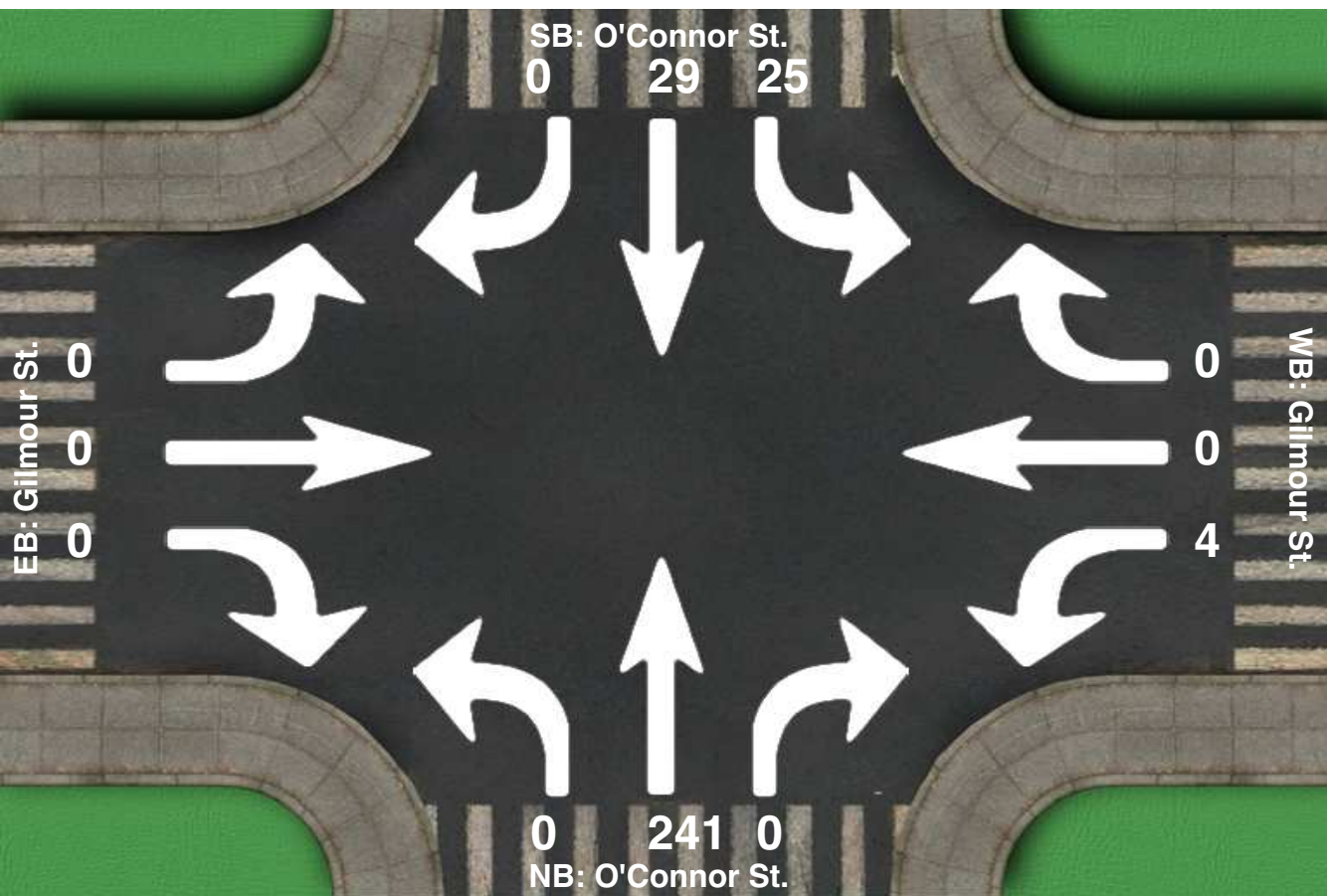
Vehicle	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Car	25	0	0	4	0	0	0	1	0	0	0	0	30
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	29	0	0	0	0	0	240	0	0	0	0	269

## Peak Hour Pedestrians

	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
Pedestrians	38	0	38	0	0	0	0	0	0	0	136	136	174

# Intersection Peak Hour

Location: O'Connor St. at Gilmour St. , Ottawa  
GPS Coordinates:  
Date: 2019-07-09  
Day of week: Tuesday  
Weather: Sunny  
Analyst: Juan Lavin



# Intersection Peak Hour

07:45 - 08:45

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	25	29	0	4	0	0	0	241	0	0	0	0	299
Factor	0.78	0.91	0.00	0.50	0.00	0.00	0.00	0.84	0.00	0.00	0.00	0.00	0.85
Approach Factor	0.90			0.50			0.84			0.00			

**Analyst:** Juan Lavin

## Total vehicle traffic

Interval starts	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	31	0	10	0	0	0	11	0	0	0	0	52
16:15	1	39	0	4	0	0	0	10	0	0	0	0	54
16:30	1	48	0	6	0	0	0	5	0	0	0	0	60
16:45	0	47	0	8	0	0	0	14	0	0	0	0	69
17:00	0	2	0	0	0	0	0	1	0	0	0	0	3

## Car traffic

[illegible]

## Truck traffic

[illegible]

## Bicycle traffic

Interval starts	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
16:00	0	31	0	0	0	0	0	11	0	0	0	0	42
16:15	0	39	0	0	0	0	0	10	0	0	0	0	49
16:30	0	48	0	0	0	0	0	5	0	0	0	0	53
16:45	0	47	0	0	0	0	0	14	0	0	0	0	61
17:00	0	2	0	0	0	0	0	1	0	0	0	0	3

## Pedestrian volumes

[illegible]

## Intersection Peak Hour

16:00 - 17:00

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	2	165	0	28	0	0	0	40	0	0	0	0	235
Factor	0.50	0.86	0.00	0.70	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.85
Approach Factor	0.85			0.70			0.71			0.00			

## Peak Hour Vehicle Summary

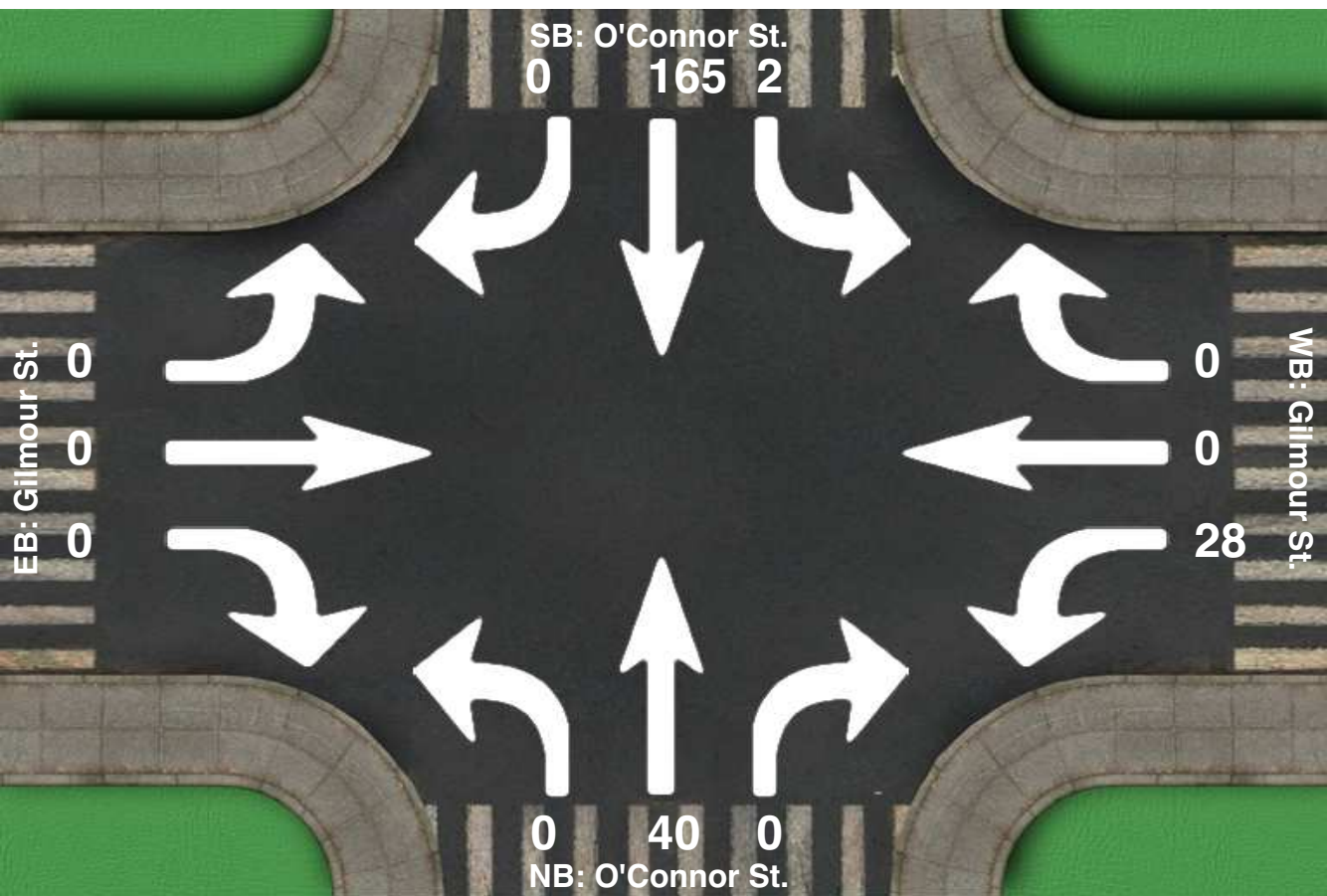
Vehicle	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Car	2	0	0	28	0	0	0	0	0	0	0	0	30
Truck	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycle	0	165	0	0	0	0	0	40	0	0	0	0	205

## Peak Hour Pedestrians

	NE			NW			SW			SE			Total
	Left	Right	Total	Left	Right	Total	Left	Right	Total	Left	Right	Total	
Pedestrians	102	0	102	0	0	0	0	0	0	0	36	36	138

# Intersection Peak Hour

Location: O'Connor St. at Gilmour St. , Ottawa  
GPS Coordinates:  
Date: 2019-07-09  
Day of week: Tuesday  
Weather: Sunny  
Analyst: Juan Lavin



## Intersection Peak Hour

16:00 - 17:00

	SouthBound			Westbound			Northbound			Eastbound			Total
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
Vehicle Total	2	165	0	28	0	0	0	40	0	0	0	0	235
Factor	0.50	0.86	0.00	0.70	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.85
Approach Factor	0.85			0.70			0.71			0.00			



# Appendix C:

OC Transpo Bus Route Maps



EAST  
EST

○ Blair

○ Cyrville

○ St-Laurent

○ Tremblay

■ VIA

○ Hurdman  SOUTH  
SUD → 

○ Lees

24 min. ○ uOttawa

○ Rideau

○ Parliament  
Parlement

○ Lyon

○ Pimisi

○ Bayview 2

○ Tunney's Pasture



WEST  
OUEST





**ELMVALE**

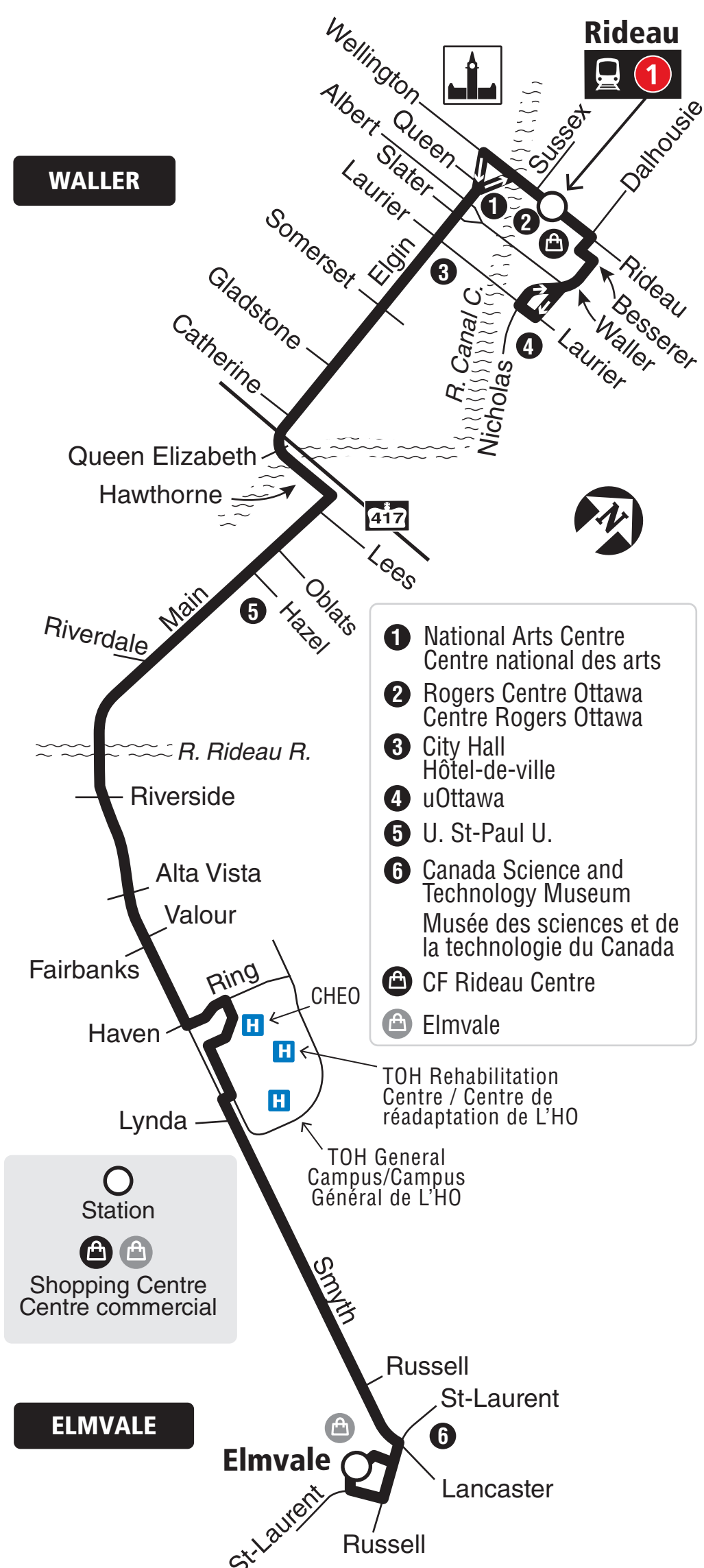
**WALLER**

**Fréquent**

**7 days a week / 7 jours par semaine**

All day service

Service toute la journée



2025.04

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

**Ce circuit sera mis en service le 27 avril 2025,** lorsque le réseau L'autobus réinventé entrera en vigueur.

Customer Service /  
Service à la clientèle ..... **613-560-5000**

Security / Sécurité ..... **613-741-2478**



**octranspo.com**





# ROCKCLIFFE GREENBORO

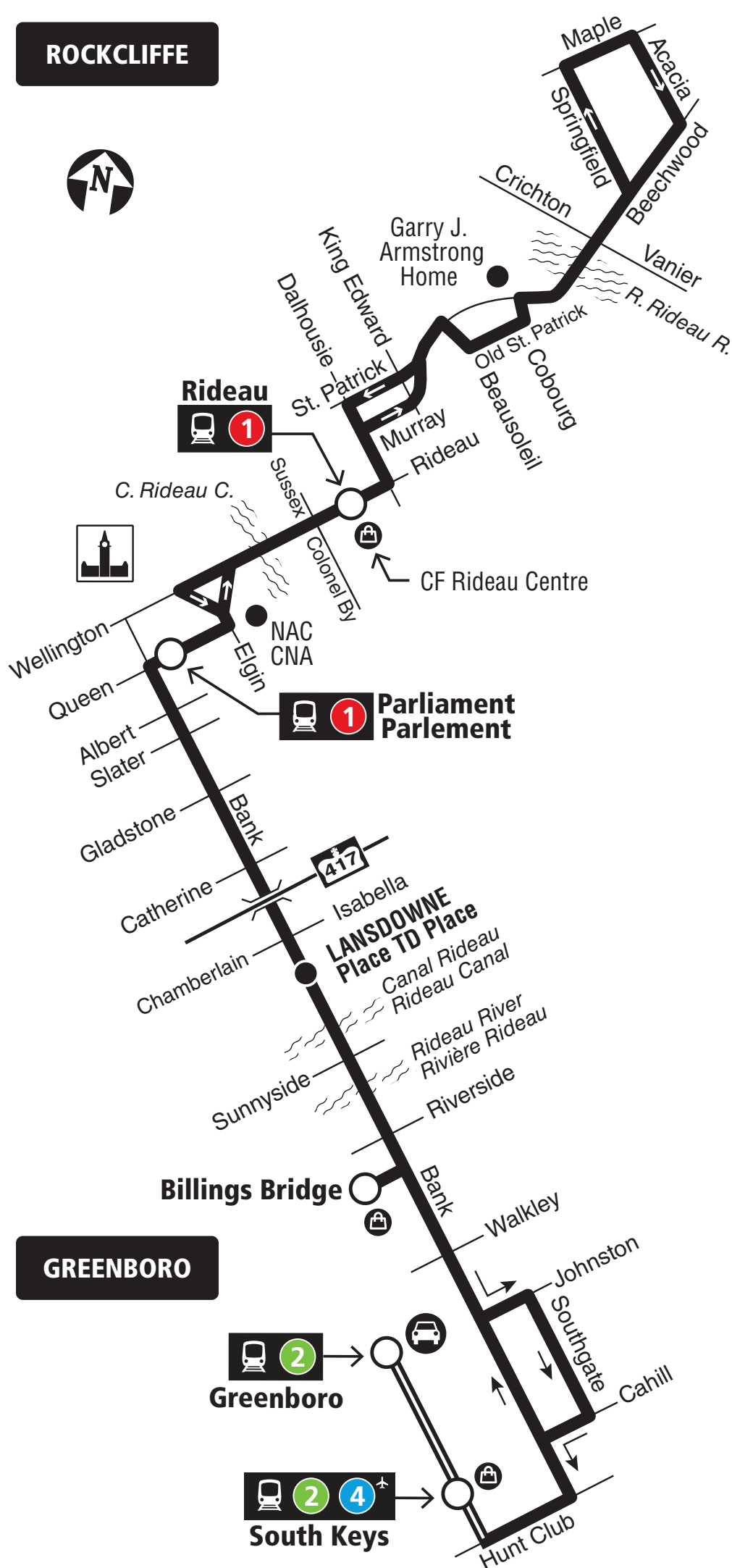
*Fréquent*

**7 days a week / 7 jours par semaine**

All day service

Service toute la journée

**ROCKCLIFFE**



**GREENBORO**



Transitway & Station



Park & Ride / Parc relais



Shopping Centre / Centre commercial

2024

2025.04

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

**Ce circuit sera mis en service le 27 avril 2025**, lorsque le réseau L'autobus réinventé entrera en vigueur.



Customer Service /  
Service à la clientèle . . . . . **613-560-5000**

Security / Sécurité . . . . . **613-741-2478**



**octranspo.com**



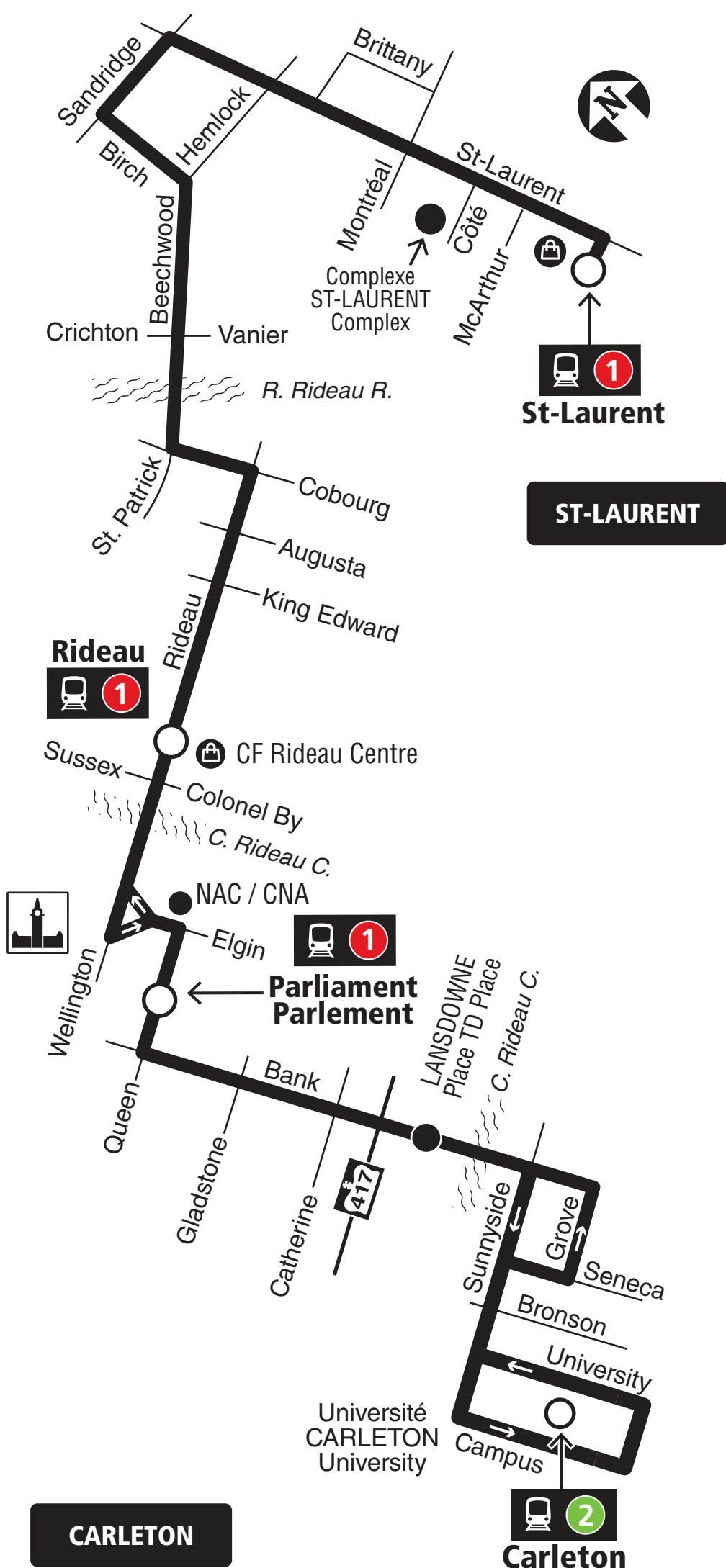
**Fréquent**



## ST-LAURENT CARLETON

**7 days a week / 7 jours par semaine**

All day service

Service toute la journée



-  Station
-  Shopping Centre / Centre commercial

2024

2025.04

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

**Ce circuit sera mis en service le 27 avril 2025,** lorsque le réseau L'autobus réinventé entrera en vigueur.



Customer Service /  
Service à la clientèle ..... **613-560-5000**

Security / Sécurité ..... **613-741-2478**



**octranspo.com**



**Fréquent**

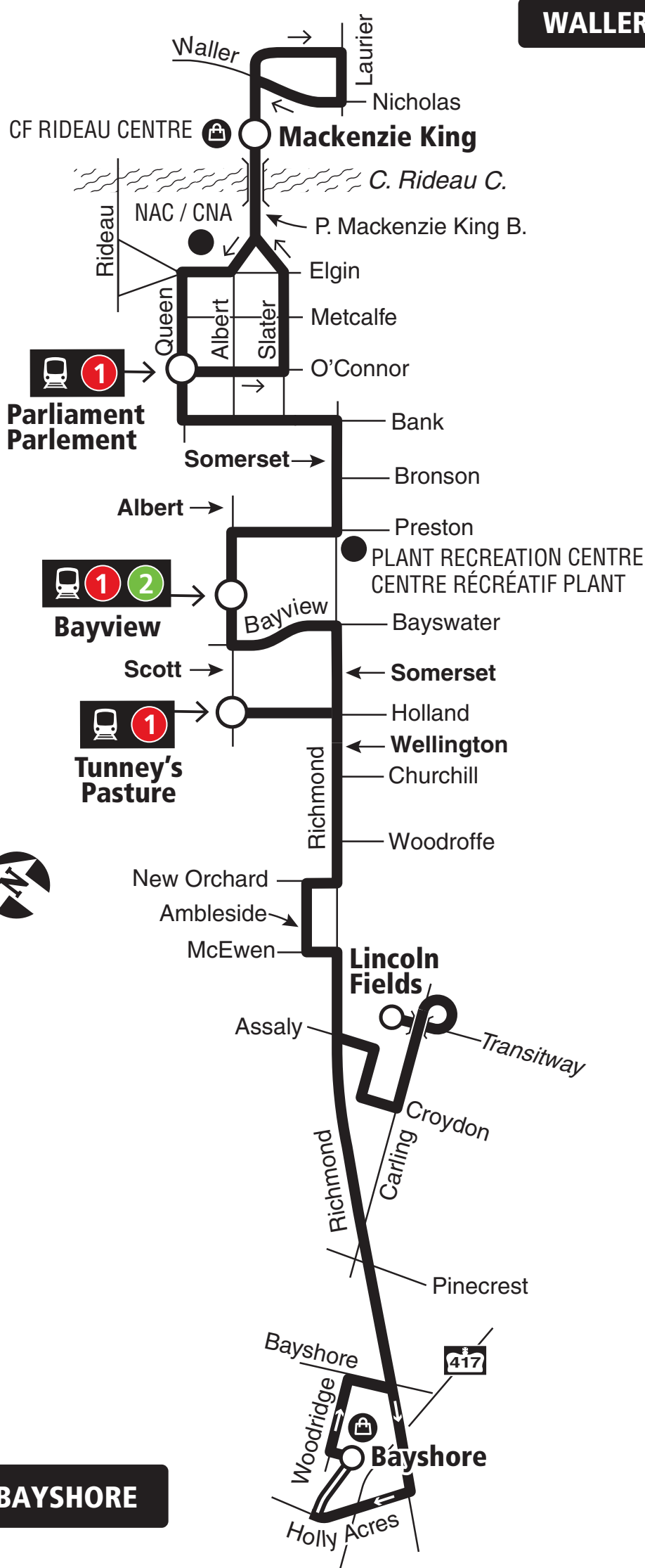
## WALLER BAYSHORE

**7 days a week / 7 jours par semaine**

All day service

Service toute la journée

**WALLER**



**BAYSHORE**



Transitway & Station



Shopping Centre / Centre commercial

04.2025

2025.04

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

**Ce circuit sera mis en service le 27 avril 2025,** lorsque le réseau L'autobus réinventé entrera en vigueur.

Customer Service /  
Service à la clientèle ..... **613-560-5000**

Security / Sécurité ..... **613-741-2478**



**octranspo.com**

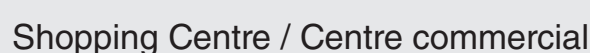
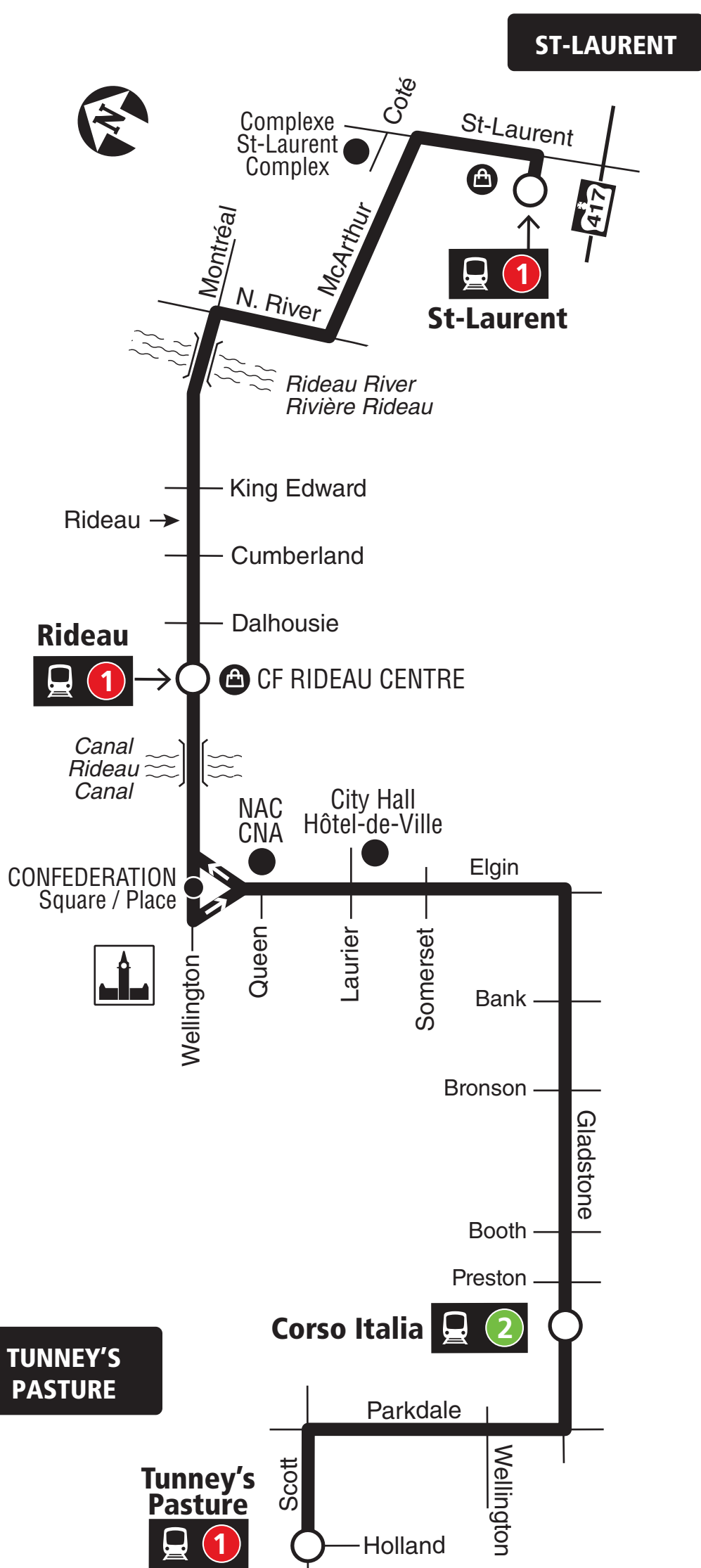


## Fréquent

**7 days a week / 7 jours par semaine**

### All day service

Service toute la journée



04.2025

2025.04

**This route starts on April 27, 2025** when the New Ways to Bus network comes into effect.

**Ce circuit sera mis en service le 27 avril 2025**, lorsque le réseau L'autobus réinventé entrera en vigueur.



**Security / Sécurité . . . . . 613-741-2478**





# Appendix D:

## Collision Analysis

**Total Area**

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	19	35	46	14	0	4	17	1	136	83%
Non-fatal injury	0	8	3	9	0	7	0	1	28	17%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>19</b>	<b>43</b>	<b>49</b>	<b>23</b>	<b>0</b>	<b>11</b>	<b>17</b>	<b>2</b>	<b>164</b>	100%
	#4 or 12%	#2 or 26%	#1 or 30%	#3 or 14%	#8 or 0%	#6 or 7%	#5 or 10%	#7 or 1%		

**METCALFE ST/SOMERSET ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	16	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	6	4	2	0	0	0	1	13	81%
Non-fatal injury	0	0	0	2	0	1	0	0	3	19%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>6</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>16</b>	100%
	0%	38%	25%	25%	0%	6%	0%	6%		

**METCALFE ST/GILMOUR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	4	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	1	1	1	1	0	0	0	0	4	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	100%
	25%	25%	25%	25%	0%	0%	0%	0%		

**METCALFE ST/WAVERLEY ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	1	1	0	1	0	0	0	0	3	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>1</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>	100%
	33%	33%	0%	33%	0%	0%	0%	0%		

**LEWIS ST/METCALFE ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	10	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	3	5	2	0	0	0	0	0	10	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>3</b>	<b>5</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	100%
	30%	50%	20%	0%	0%	0%	0%	0%		

**FRANK ST/METCALFE ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	6	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	2	1	1	0	0	0	0	4	67%
Non-fatal injury	0	1	1	0	0	0	0	0	2	33%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>6</b>	100%
	0%	50%	33%	17%	0%	0%	0%	0%		

**MACLAREN ST/METCALFE ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	6	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	3	2	0	0	1	0	0	6	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>3</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>6</b>	100%
	0%	50%	33%	0%	0%	17%	0%	0%		

**GLADSTONE AVE/METCALFE ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	15	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	2	3	3	1	0	0	0	0	9	60%
Non-fatal injury	0	3	1	1	0	1	0	0	6	40%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>2</b>	<b>6</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>15</b>	100%
	13%	40%	27%	13%	0%	7%	0%	0%		

**GILMOUR ST/O'CONNOR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	21	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	3	3	8	2	0	1	0	0	17	81%
Non-fatal injury	0	2	0	2	0	0	0	0	4	19%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>3</b>	<b>5</b>	<b>8</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>21</b>	100%
	14%	24%	38%	19%	0%	5%	0%	0%		

**WAVERLEY ST/O'CONNOR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	10	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	1	1	1	2	0	1	0	0	6	60%
Non-fatal injury	0	0	1	3	0	0	0	0	4	40%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>1</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>10</b>	100%
	10%	10%	20%	50%	0%	10%	0%	0%		

**GLADSTONE AVE/O'CONNOR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	16	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	4	5	4	2	0	0	1	0	16	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>4</b>	<b>5</b>	<b>4</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>16</b>	100%
	25%	31%	25%	13%	0%	0%	6%	0%		

**O'CONNOR ST/SOMERSET ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	20	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	2	5	5	1	0	1	0	0	14	70%
Non-fatal injury	0	1	0	0	0	5	0	0	6	30%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>2</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>20</b>	100%
	10%	30%	25%	5%	0%	30%	0%	0%		

**FRANK ST/O'CONNOR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	2	0	0	0	0	0	2	67%
Non-fatal injury	0	0	0	1	0	0	0	0	1	33%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	2	1	0	0	0	0	3	100%
	0%	0%	67%	33%	0%	0%	0%	0%		

**LEWIS ST/O'CONNOR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	1	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	1	0	0	0	0	1	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	0	1	0	0	0	0	1	100%
	0%	0%	0%	100%	0%	0%	0%	0%		

**METCALFE ST, WAVERLEY ST to FRANK ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	2	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	1	0	0	0	1	0	2	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	1	0	0	0	1	0	2	100%
	0%	0%	50%	0%	0%	0%	50%	0%		

**METCALFE ST, GILMOUR ST to LEWIS ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	2	0	0	0	0	0	2	67%
Non-fatal injury	0	0	0	0	0	0	0	1	1	33%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	2	0	0	0	0	1	3	100%
	0%	0%	67%	0%	0%	0%	0%	33%		

**METCALFE ST, MACLAREN ST to GILMOUR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	2	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	2	0	0	0	0	0	2	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	2	0	0	0	0	0	2	100%
	0%	0%	100%	0%	0%	0%	0%	0%		

**O'CONNOR ST, GILMOUR ST to LEWIS ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	2	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	1	0	0	0	1	0	2	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	1	0	0	0	1	0	2	100%
	0%	0%	50%	0%	0%	0%	50%	0%		

**O'CONNOR ST, FRANK ST to GLADSTONE AVE**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	0	0	0	3	0	3	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	0	0	0	0	3	0	3	100%
	0%	0%	0%	0%	0%	0%	100%	0%		

**O'CONNOR ST, SOMERSET ST to MACLAREN ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	1	0	0	0	2	0	3	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	1	0	0	0	2	0	3	100%
	0%	0%	33%	0%	0%	0%	67%	0%		

**O'CONNOR ST, WAVERLEY ST to FRANK ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	1	0	0	0	2	0	3	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	1	0	0	0	2	0	3	100%
	0%	0%	33%	0%	0%	0%	67%	0%		

**O'CONNOR ST, LEWIS ST to WAVERLEY ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	2	0	1	0	0	0	0	0	3	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	2	0	1	0	0	0	0	0	3	100%
	67%	0%	33%	0%	0%	0%	0%	0%		

**O'CONNOR ST, MACLAREN ST to GILMOUR ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	4	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	2	0	0	0	1	0	3	75%
Non-fatal injury	0	1	0	0	0	0	0	0	1	25%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	1	2	0	0	0	1	0	4	100%
	0%	25%	50%	0%	0%	0%	25%	0%		

**METCALFE ST, LEWIS ST to WAVERLEY ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	1	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	0	0	0	1	0	1	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	0	0	0	0	0	0	1	0	1	100%
	0%	0%	0%	0%	0%	0%	100%	0%		

**METCALFE ST, SOMERSET ST to MACLAREN ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	1	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	1	0	0	0	0	0	1	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	100%
	0%	0%	100%	0%	0%	0%	0%	0%		

**METCALFE ST, FRANK ST to GLADSTONE AVE**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	2	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	0	0	0	2	0	2	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	100%
	0%	0%	0%	0%	0%	0%	100%	0%		

**GILMOUR ST, O'CONNOR ST to METCALFE ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	3	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	1	0	0	0	2	0	3	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>3</b>	100%
	0%	0%	33%	0%	0%	0%	67%	0%		

**MACLAREN ST, O'CONNOR ST to METCALFE ST**

Years	Total # Collisions	24 Hr AADT Veh Volume	Days
2018-2022	1	n/a	1825

Classification of Accident	Rear End	Turning Movement	Sideswipe	Angle	Approaching	SMV other	SMV unattended vehicle	Other	Total	
P.D. only	0	0	0	0	0	0	1	0	1	100%
Non-fatal injury	0	0	0	0	0	0	0	0	0	0%
Non-reportable	0	0	0	0	0	0	0	0	0	0%
Total	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>1</b>	100%
	0%	0%	0%	0%	0%	0%	100%	0%		

# Appendix E:

## TDM Checklists



## **TDM-Supportive Development Design and Infrastructure Checklist:** *Residential Developments (multi-family or condominium)*

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

<b>TDM-supportive design &amp; infrastructure measures:</b> <i>Residential developments</i>		<b>Check if completed &amp; add descriptions, explanations or plan/drawing references</b>
<b>1. WALKING &amp; CYCLING: ROUTES</b>		
<b>1.1 Building location &amp; access points</b>		
<b>BASIC</b>	1.1.1 Locate building close to the street, and do not locate parking areas between the street and building entrances	<input checked="" type="checkbox"/>
<b>BASIC</b>	1.1.2 Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	<input checked="" type="checkbox"/>
<b>BASIC</b>	1.1.3 Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	<input checked="" type="checkbox"/>
<b>1.2 Facilities for walking &amp; cycling</b>		
<b>REQUIRED</b>	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> )	<input type="checkbox"/>  No transit stations or major stops within 600m
<b>REQUIRED</b>	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> )	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>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> )	<input checked="" type="checkbox"/>
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> )	<input checked="" type="checkbox"/>
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> )	<input checked="" type="checkbox"/>
BASIC	1.2.6 Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	<input type="checkbox"/>
BASIC	1.2.7 Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	<input type="checkbox"/>
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	<input type="checkbox"/>
<b>1.3 Amenities for walking &amp; cycling</b>		
BASIC	1.3.1 Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	<input checked="" type="checkbox"/>
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)	<input checked="" type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
<b>2. WALKING &amp; CYCLING: END-OF-TRIP FACILITIES</b>		
<b>2.1 Bicycle parking</b>		
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> )	<input checked="" type="checkbox"/>
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> )	<input checked="" type="checkbox"/>
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> )	<input checked="" type="checkbox"/>
BASIC	2.1.4 Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	<input type="checkbox"/>
<b>2.2 Secure bicycle parking</b>		
REQUIRED	2.2.1 Where more than 50 bicycle parking spaces are provided for a single residential 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> )	<input checked="" type="checkbox"/>
BETTER	2.2.2 Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	<input type="checkbox"/>
<b>2.3 Bicycle repair station</b>		
BETTER	2.3.1 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)	<input type="checkbox"/>
<b>3. TRANSIT</b>		
<b>3.1 Customer amenities</b>		
BASIC	3.1.1 Provide shelters, lighting and benches at any on-site transit stops	<input type="checkbox"/> No 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	<input type="checkbox"/> No off-site transit stops
BETTER	3.1.3 Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	<input type="checkbox"/>

TDM-supportive design & infrastructure measures: <i>Residential developments</i>		Check if completed & add descriptions, explanations or plan/drawing references
<b>4. RIDESHARING</b>		
<b>4.1 Pick-up &amp; drop-off facilities</b>		
<b>BASIC</b>	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	<input type="checkbox"/>
<b>5. CARSHARING &amp; BIKESHARING</b>		
<b>5.1 Carshare parking spaces</b>		
<b>BETTER</b>	5.1.1 Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses (see <i>Zoning By-law Section 94</i> )	<input checked="" type="checkbox"/>
<b>5.2 Bikeshare station location</b>		
<b>BETTER</b>	5.2.1 Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	<input type="checkbox"/>
<b>6. PARKING</b>		
<b>6.1 Number of parking spaces</b>		
<b>REQUIRED</b>	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	<input checked="" type="checkbox"/>
<b>BASIC</b>	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	<input type="checkbox"/>
<b>BASIC</b>	6.1.3 Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly (see <i>Zoning By-law Section 104</i> )	<input type="checkbox"/>
<b>BETTER</b>	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 (see <i>Zoning By-law Section 111</i> )	<input type="checkbox"/>
<b>6.2 Separate long-term &amp; short-term parking areas</b>		
<b>BETTER</b>	6.2.1 Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	<input type="checkbox"/>

**TDM Measures Checklist:**  
*Residential Developments (multi-family, condominium or subdivision)*

<b>Legend</b>	
<b>BASIC</b>	The measure is generally feasible and effective, and in most cases would benefit the development and its users
<b>BETTER</b>	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

<b>TDM measures: <i>Residential developments</i></b>		<b>Check if proposed &amp; add descriptions</b>
<b>1. TDM PROGRAM MANAGEMENT</b>		
<b>1.1 Program coordinator</b>		
<b>BASIC</b> ★	1.1.1 Designate an internal coordinator, or contract with an external coordinator	<input type="checkbox"/>
<b>1.2 Travel surveys</b>		
<b>BETTER</b>	1.2.1 Conduct periodic surveys to identify travel-related behaviours, attitudes, challenges and solutions, and to track progress	<input type="checkbox"/>
<b>2. WALKING AND CYCLING</b>		
<b>2.1 Information on walking/cycling routes &amp; destinations</b>		
<b>BASIC</b>	2.1.1 Display local area maps with walking/cycling access routes and key destinations at major entrances ( <i>multi-family, condominium</i> )	<input checked="" type="checkbox"/>
<b>2.2 Bicycle skills training</b>		
<b>BETTER</b>	2.2.1 Offer on-site cycling courses for residents, or subsidize off-site courses	<input type="checkbox"/>

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
<b>3. TRANSIT</b>		
<b>3.1 Transit information</b>		
BASIC	3.1.1 Display relevant transit schedules and route maps at entrances ( <i>multi-family, condominium</i> )	<input checked="" type="checkbox"/>
BETTER	3.1.2 Provide real-time arrival information display at entrances ( <i>multi-family, condominium</i> )	<input type="checkbox"/>
<b>3.2 Transit fare incentives</b>		
BASIC ★	3.2.1 Offer PRESTO cards preloaded with one monthly transit pass on residence purchase/move-in, to encourage residents to use transit	<input type="checkbox"/>
BETTER	3.2.2 Offer at least one year of free monthly transit passes on residence purchase/move-in	<input type="checkbox"/>
<b>3.3 Enhanced public transit service</b>		
BETTER ★	3.3.1 Contract with OC Transpo to provide early transit services until regular services are warranted by occupancy levels ( <i>subdivision</i> )	<input type="checkbox"/>
<b>3.4 Private transit service</b>		
BETTER	3.4.1 Provide shuttle service for seniors homes or lifestyle communities (e.g. scheduled mall or supermarket runs)	<input type="checkbox"/>
<b>4. CARSHARING &amp; BIKESHARING</b>		
<b>4.1 Bikeshare stations &amp; memberships</b>		
BETTER	4.1.1 Contract with provider to install on-site bikeshare station ( <i>multi-family</i> )	<input type="checkbox"/>
BETTER	4.1.2 Provide residents with bikeshare memberships, either free or subsidized ( <i>multi-family</i> )	<input type="checkbox"/>
<b>4.2 Carshare vehicles &amp; memberships</b>		
BETTER	4.2.1 Contract with provider to install on-site carshare vehicles and promote their use by residents	<input checked="" type="checkbox"/>
BETTER	4.2.2 Provide residents with carshare memberships, either free or subsidized	<input type="checkbox"/>
<b>5. PARKING</b>		
<b>5.1 Priced parking</b>		
BASIC ★	5.1.1 Unbundle parking cost from purchase price ( <i>condominium</i> )	<input type="checkbox"/>
BASIC ★	5.1.2 Unbundle parking cost from monthly rent ( <i>multi-family</i> )	<input checked="" type="checkbox"/>

TDM measures: <i>Residential developments</i>		Check if proposed & add descriptions
<b>6. TDM MARKETING &amp; COMMUNICATIONS</b>		
<b>6.1 Multimodal travel information</b>		
<b>BASIC</b>	★ 6.1.1 Provide a multimodal travel option information package to new residents	<input checked="" type="checkbox"/>
<b>6.2 Personalized trip planning</b>		
<b>BETTER</b>	★ 6.2.1 Offer personalized trip planning to new residents	<input type="checkbox"/>



## **Appendix F:**

**MMLOS Road Segment Analysis**

Multi-Modal Level of Service - Segments Form  
Project: 267 O'Connor Street  
Consultant: Parsons  
Date: Nov 13, 2025  
Scenario: Existing and Future

Segment Name		O'Connor Street (Existing)				MacLaren Street (Existing)				Gilmour Street (Existing)				
OP Transect / Policy Area		Within 300m of school				Within 300m of school				Within 300m of school				
Segment Component		Majority (>50%)		Critical		Majority (>50%)		Critical		Majority (>50%)		Critical		
Side of Street		W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	
Pedestrian	PLOS Inputs													
	Posted Speed (km/h)		50 km/h		50 km/h		30 km/h		30 km/h		30 km/h		30 km/h	
	Two-Way ADT		12,720		12,720		1,350		1,350		1,460		1,460	
	Pedestrian Facility		Sidewalk		Sidewalk		Sidewalk		Sidewalk		Sidewalk		Sidewalk	
	Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users?		Yes		Yes		Yes		Yes		Yes		Yes	
	Facility Width (m)		1.50m		2.00m		1.60m		1.50m		1.50m		1.50m	
	Offset from Motor Vehicle Travel Lanes (m)		-		≥ 3.0m		-		-		-		-	
	Presence of Adjacent Parking?		-		No		-		-		-		-	
	General Purpose Curb Lane ADT		-		-		-		-		-		-	
	Max. Distance between Controlled Crossings (m)		≤ 200m		≤ 200m		≤ 200m		≤ 200m		≤ 200m		≤ 200m	
Score		2.00		5.00		2.00		2.00		2.00		2.00		
PLOS		D		A		-		-		D		D		
Target PLOS		B		B		B		B		B		B		
Bicycle	BLOS Inputs													
	Cycling Route Classification		Cross-Town Bikeway		Elsewhere		Elsewhere		Elsewhere		Elsewhere		Elsewhere	
	Cycling Facility		Cycle Track		Input PLOS First		Input PLOS First		Shared Operating Space		Shared Operating Space		Input PLOS First	
	Is the minimum level of separation provided, according to OTM Book 18 Pre-Selection, Monograph - Rural Context (Figure 5.6)7 (for paved shoulders)		-		-		-		-		-		-	
	Facility Operation		Bidirectional		-		-		-		-		-	
	Pedestrian/Cyclist Volume		-		-		-		-		-		-	
	Facility Width		3.0-3.49m		-		-		-		-		-	
	Boulevard/Buffer Width (excluding curb)		< 0.6m with or without adjacent parking		-		-		-		-		-	
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)		None		-		-		None		None		-	
	Number of Travel Lanes at Crossing Crossing includes Median Refuse (≥ 2.7m)		-		-		-		-		-		-	
Cross-street Posted Speed (km/h)		-		-		-		-		-		-		
Cycling Path Blockages (i.e., bus stops and/or loading zones)		-		-		Rare		Rare		Rare		Rare		
Score		-		2.00		5.00		5.00		-		-		
BLOS		-		D		A		A		-		-		
Target BLOS		B		B		C		C		C		C		
Transit	TLOS Inputs													
	Transit Facility		Select Transit Designation				Select Transit Designation				Select Transit Designation			
	Facility Type													
	Expected Transit Running Time													
	Transit Travel Speed (if available)													
TLOS		-		-		-		-		-		-		
Target TLOS		-		-		-		-		-		-		
Public Realm	PRLOS Inputs													
	Context		Input PLOS and BLOS First		Other Streets		Other Streets		Other Streets		Other Streets		Other Streets	
	Inner Boulevard Width		≤ 0.6m		≤ 0.6m		≤ 0.6m		≤ 0.6m		≤ 0.6m		≤ 0.6m	
	Middle Boulevard Width		Half-height curb serving as the boulevard		≤ 0.5m		≤ 0.5m		≤ 0.5m		≤ 0.5m		≤ 0.5m	
	Outer Boulevard (Frontage) Width		≤ 0.5m		1.5-1.99m		1.5-1.99m		1.5-1.99m		1.5-1.99m		1.5-1.99m	
	Transit Route on Segment?		No		No		No		No		No		No	
	Bus Stop Elements		-		-		-		-		-		-	
Number of Midblock Traffic Lanes (both travel directions)		≤ 2		≤ 2		≤ 2		≤ 2		≤ 2		≤ 2		
Score		-		24.00		-		20.70		18.00		-		
PRLOS		-		B		-		B		C		-		
Target PRLOS		B		B		B		B		C		C		

Multi-Modal Level of Service - Segments Form

Project: 267 O'Connor Street  
Consultant: Parsons  
Date: Nov 13, 2025  
Scenario: Existing and Future

Segment Name			O'Connor Street (Future)				MacLaren Street (Future)				Gilmour Street (Future)		
OP Transect / Policy Area			Within 300m of school				Within 300m of school				Within 300m of school		
Segment Component			Majority (>50%)		Critical		Majority (>50%)		Critical		Majority (>50%)		
Side of Street			W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	W or N	E or S	
Pedestrian	PLOS Inputs												
	Posted Speed (km/h)	50 km/h	50 km/h		50 km/h		30 km/h		30 km/h		30 km/h		
	Two-Way ADT	12,720	12,720		12,720		1,350		1,350		1,460		
	Pedestrian Facility	Sidewalk	Sidewalk		Sidewalk		Sidewalk		Sidewalk		Sidewalk		
	Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users?	Yes	Yes		Yes		Yes		Yes		Yes		
	Facility Width (m)	1.50m	2.00m		2.00m		2.00m		2.00m		1.50m		
	Offset from Motor Vehicle Travel Lanes (m)	-	≥ 3.0m		-		< 0.5m		< 0.5m		-		
	Presence of Adjacent Parking?	-	No		-		-		-		-		
	General Purpose Curb Lane ADT	-	-		-		≤ 3000		-		-		
	Max. Distance between Controlled Crossings (m)	-	≤ 200m		≤ 200m		≤ 200m		-		≤ 200m		
Score		-	2.00		5.00		2.00		4.25		4.25		
PLOS		-	D		A		-		B		-		
Target PLOS		B				B				B			
Bicycle	BLOS Inputs												
	Cycling Route Classification		Cross-Town Bikeway				Elsewhere				Elsewhere		
	Cycling Facility	Input PLOS First	Cycle Track		Input PLOS First		Input PLOS First		Input PLOS First		Input PLOS First		
	Is the minimum level of separation provided, according to OTM Book 18 Pre-Selection Nomograph - Rural Context (Figure 5.6)? (for paved shoulders)	-	-		-		-		-		-		
	Facility Operation	-	Bidirectional		-		-		-		-		
	Pedestrian/Cyclist Volume	-	-		-		-		-		-		
	Facility Width	-	3.0-3.49m		-		-		-		-		
	Boulevard/Buffer Width (excluding curb)	-	< 0.6m with or without adjacent parking		-		-		-		-		
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)	-	None		-		None		None		None		
	Number of Travel Lanes at Crossing Crossing Includes Median Refuge (≥ 2.7m)	-	-		-		-		-		-		
Cross-street Posted Speed (km/h)		-		-		-		-		-			
Cycling Path Blockages (e.g. bus stops and/or loading zones)		-		-		Rare		Rare		Rare			
Score		-	2.00		5.00		5.00		5.00		5.00		
BLOS		-	D		-		A		A		A		
Target BLOS		B				C				C			
Transit	TLOS Inputs												
	Transit Facility		Select Transit Designation				Select Transit Designation				Select Transit Designation		
	Facility Type												
	Expected Transit Running Time												
	Transit Travel Speed (if available)												
TLOS		-	-		-		-		-		-		
Target TLOS		-		-		-		-		-			
Public Realm	PRLOS Inputs												
	Context	Input PLOS and BLOS First	Other Streets		Other Streets		Other Streets		Other Streets		Other Streets		
	Inner Boulevard Width	-	≤ 0.6m		≤ 0.6m		≤ 0.6m		≤ 0.6m		≤ 0.6m		
	Middle Boulevard Width	-	Half-height curb serving as the boulevard		≤ 0.5m		≤ 0.5m		≤ 0.5m		≤ 0.5m		
	Outer Boulevard (Frontage) Width	-	≥ 3.0m		≥ 3.0m		≥ 3.0m		≥ 3.0m		≥ 3.0m		
	Transit Route on Segment?	-	No		No		No		No		No		
	Bus Stop Elements	-	-		-		-		-		-		
Number of Midblock Traffic Lanes (both travel directions)		≤ 2		≤ 2		≤ 2		≤ 2		≤ 2			
Score		-	27.60		-		25.50		25.50		-		
PRLOS		-	A		-		A		A		-		
		A				A				A			

Multi-Modal Level of Service - Segments Form

Project: 267 O'Connor Street  
Consultant: Parsons  
Date: Nov 13, 2025  
Scenario: Existing and Future

Segment Name eet (Future)			
OP Transect / Policy Area n of school			
Segment Component		Critical	
Side of Street		W or N	E or S
Pedestrian	PLOS Inputs		
	Posted Speed (km/h)	30 km/h	
	Two-Way ADT	1,460	
	Pedestrian Facility		
	Does the facility meet the TMP Sidewalk or MUP Policy? If not, for MUPs, does the location have a low volume of peak daily users AND are pedestrian volumes likely less than 20% of total users?		
	Facility Width (m)		
	Offset from Motor Vehicle Travel Lanes (m)		
	Presence of Adjacent Parking?		
	General Purpose Curb Lane ADT		
	Max. Distance between Controlled Crossings (m)		
Score			
PLOS		-	-
Target PLOS			
Bicycle	BLOS Inputs		
	Cycling Route Classification where		
	Cycling Facility	Input PLOS First	Input PLOS First
	Is the minimum level of separation provided, according to OTM Book 18 Pre-Selection, Nomograph - Rural Context (Figure 5.6)7 (for paved shoulders)		
	Facility Operation		
	Pedestrian/Cyclist Volume		
	Facility Width		
	Boulevard/Buffer Width (excluding curb)		
	Unsignalized Roadway Crossing Type (where cyclists are required to yield)		
	Number of Travel Lanes at Crossing		
	Crossing includes Median Refuse (≥ 2.7m)		
	Cross-street Posted Speed (km/h)		
	Cycling Path Blockages (a.o. bus stops and/or loading zones)		
	Score		
	BLOS		-
Target BLOS			
Transit	TLOS Inputs		
	Transit Facility		
	Facility Type		
	Expected Transit Running Time		
	Transit Travel Speed (if available)		
	TLOS		
Target TLOS			
Public Realm	PRLOS Inputs		
	Context		
	Inner Boulevard Width		
	Middle Boulevard Width		
	Outer Boulevard (Frontage) Width		
	Transit Route on Segment?		
	Bus Stop Elements		
	Number of Midblock Traffic Lanes (both travel directions)		
	Score		
	PRLOS		