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36 Years

278, 280 O'Connor Street and 347 Gilmour Street

Transportation Impact Assessment

278, 280 O'Connor Street and 347 Gilmour Street

Transportation Impact Assessment

Prepared By:

NOVATECH
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario
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August 16, 2019

Novatech File: 118074
Ref: 2019-141

NOVATECH
Engineers, Planners & Landscape Architects

August 16, 2019

City of Ottawa
Planning and Growth Management Department
110 Laurier Ave. W., 4th Floor,
Ottawa, Ontario K1P 1J1

Attention: **Mr. Wally Dubyk**
Project Manager, Infrastructure Approvals

Dear Mr. Dubyk:

Reference: **278, 280 O'Connor Street and 347 Gilmour Street**
Transportation Impact Assessment Report
Novatech File No. 117089

We are pleased to submit the following Transportation Impact Assessment report in support of an Official Plan Amendment, Zoning By-law Amendment and Site Plan Control applications for the above address. The structure and format of this report is in accordance with the City of Ottawa Transportation Impact Assessment Guidelines (June 2017).

If you have any questions or comments regarding this report, please feel free to contact Brad Byvelds, or the undersigned.

Yours truly,

NOVATECH

Rochelle Fortier, B.Eng.
E.I.T. | Transportation/Traffic

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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[1] or registered[2] 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.**

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Dated at Ottawa (City) this 16 day of August, 2019.

Name: Brad Byvelds, P.Eng.
(Please Print)

Professional Title: Project Coordinator, Transportation/Traffic

B. Byvelds

Signature of Individual certifier that s/he meets the above four criteria

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EXECUTIVE SUMMARY

This Transportation Impact Assessment (TIA) report has been prepared in support of an Official Plan Amendment, Zoning By-law Amendment and Site Plan Control applications for 278, 280 O'Connor Street and 347 Gilmour Street. The subject properties are located at the northwest corner of O'Connor Street and Gilmour Street and currently contain three residential buildings, with a total of seventeen residential dwelling units and one ground floor medical practice

The proposed development consists of one six storey building with 65 residential units. One left-in left-out driveway to an underground parking garage providing 29 parking spaces on Gilmour Street is proposed. The development is anticipated to be completed in a single phase, with full build out by 2021.

The main conclusions and recommendations of this TIA can be summarized as follows:

Development Design

- Pedestrian walkways will be provided to connect to the existing facilities along Gilmour Street and O'Connor Street. Sidewalks will be depressed and continuous across the proposed access.
- OC Transpo stops #2483, #7665, #1902, #1548, #2374, and #7669 are all located within a 400m actual walking distance to the proposed development.
- All required Transportation Demand Management (TDM)-supportive development design measures in the TDM checklist are met.
- Garbage bins will be brought out for curbside municipal collection along Gilmour Street.
- The proposed fire route is curbside along Gilmour Street.

Parking

- The 29 proposed vehicular spaces and 60 proposed bicycle parking spaces will meet the minimum requirements of the Zoning By-Law (ZBL). All parking spaces will be provided below-grade.
- Vehicular parking in the underground parking lot will conform to the requirements of the City's *Accessibility Design Standards*.

Boundary Street Design

- O'Connor Street meets the target PLOS, BLOS, TkLOS, and Auto LOS.
- Gilmour Street meets the target BLOS and Auto LOS but does not meet the target PLOS. As part of the proposed development, the northern sidewalk along the Gilmour Street frontage will be widened to 2.0m. This will result in a PLOS B on the north side of Gilmour Street, meeting the target for the General Urban Area.

Access Design

- The proposed development will be served by one left-in, left-out access to an underground parking garage on Gilmour Street.
- The ramp to the parking garage will accommodate vehicles entering and exiting the parking garage however it is intended for one-way vehicular traffic only.
- The proposed access will be approximately 3.4m in width and is located approximately 42m from the Gilmour Street/O'Connor Street intersection. The width and location of the proposed access adheres to the requirements of the City's ZBL and Private Approach By-law.

- The underground parking lot access will have a maximum grade of 6% for a distance of 6m within the property, conforming to the requirements of the City's Private Approach By-law.

Transportation Demand Management

- To encourage travel by sustainable modes, the following TDM measures will be implemented for the subject site:
    - Display local area maps with walking/cycling access routes and key destinations at major entrances;
    - Display relevant transit schedules and route maps at entrances; and
    - Unbundle parking cost from monthly rent.

1.0 INTRODUCTION

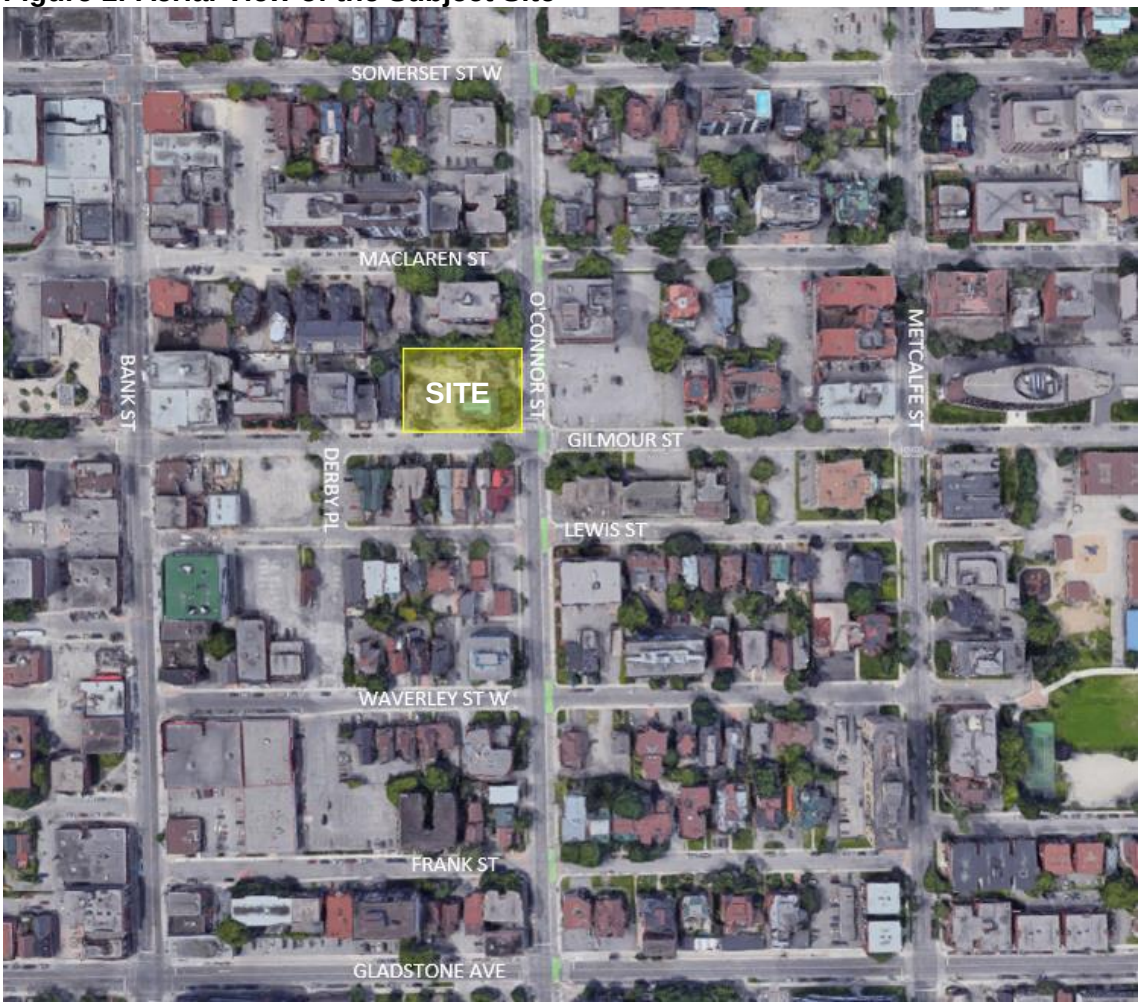
This Transportation Impact Assessment (TIA) report has been prepared in support of an Official Plan Amendment, Zoning By-law Amendment and Site Plan Control applications for 278, 280 O'Connor Street and 347 Gilmour Street. The subject properties currently contain three residential buildings, with a total of seventeen residential dwelling units. One of the buildings contains a medical practice (approximately 1,500 square feet) on the ground floor.

The subject properties are located at the northwest corner of the O'Connor Street/Gilmour Street intersection and are surrounded by the following:

- Residential uses and MacLaren Street to the north;
- O'Connor Street, a 6-storey commercial retail/office building and a pay & display parking lot to the east;
- Residential uses to the west; and
- Gilmour Street and residential uses to the south.

A view of the subject site is provided in **Figure 1**.

Figure 1: Aerial View of the Subject Site



2.0 PROPOSED DEVELOPMENT

The subject site is currently zoned R4T[479] and is located in the General Urban Area.

The proposed development consists of one six storey building with 65 residential units. One left-in left-out driveway to an underground parking garage providing 29 parking spaces on Gilmour Street is proposed. The development is anticipated to be completed in a single phase, with full build out by 2021.

A copy of the proposed site plan is included in **Appendix A**.

3.0 SCREENING

The City's 2017 TIA Guidelines identifies three triggers for completing a TIA report, including trip generation, location, and safety. The criteria for each trigger are outlined in the City's TIA Screening Form. A copy of the TIA screening form is included in **Appendix B**.

The trigger results are as follows:

- Trip Generation Trigger – The development is not anticipated to generate over 60 person trips/peak hour; further assessment is not required based on this trigger.

- Location Triggers – The development is located within a Design Priority Area (DPA); further assessment is required based on this trigger

- Safety Triggers – No safety triggers in the TIA Screening Form were met; further assessment is not required based on this trigger.

4.0 SCOPING

4.1 Existing Conditions

4.1.1 Roadways

All study area roadways fall under the jurisdiction of the City of Ottawa.

O'Connor Street is a north-south arterial roadway with a regulatory speed limit of 50km/h. Within the study area, it operates as a one-way in the southbound direction, with two travel lanes and one on-street parking lane along the west side. Within the vicinity of the subject site, O'Connor street is classified as a truck route. The City of Ottawa's Official Plan identified a right of way (ROW) protection of 20m along O'Connor Street between Nepean Street and Isabella Street. It appears as though a widening of approximately 0.5-0.8m is required across the frontage of the subject site, to be confirmed by legal survey.

Gilmour Street is an east-west local roadway with a regulatory speed limit of 50km/h. Within the study area, it operates as a one-way in the eastbound direction, with one travel lane. On street

parking is permitted along the north side of the road. Speed bumps are provided along Gilmour Street within the study area. Gilmour Street is not classified as a truck route.

Bank Street is a north-south arterial roadway with a regulatory speed limit of 50km/h and one travel lane in each direction. Within the study area, on-street parking is permitted along the west side of Bank Street between Gilmour Street and Gladstone Avenue, and along the east side between Gilmour Street and MacLaren Street. Stopping prohibitions are in place in the aforementioned on-street parking locations from 7-9AM and 3:30-5:30PM on weekdays. Within the vicinity of the subject site, Bank Street is not classified as a truck route.

Metcalfe Street is a north-south arterial roadway with a regulatory speed limit of 50km/h. Within the study area, it operates as a one-way in the northbound direction, with three travel lanes. On-street parking is permitted in the eastern lane. Stopping prohibitions are in place in the aforementioned on-street parking locations from 7-9AM and 3:30-5:30PM on weekdays. Within the vicinity of the subject site, Metcalfe Street is not classified as a truck route.

4.1.2 Intersections

O'Connor Street/Gilmour Street

- Signalized intersection
- Eastbound: one travel lane
- Southbound: two travel lanes
- A standard crosswalk is provided on the west approach, ladder crosswalks are provided on the north, south, and east approaches.
- Bi-directional cycle track provided along the east side of O'Connor Street, with bicycle signals and a cross-ride with green thermoplastic provided at the intersection

Bank Street/Gilmour Street

- Signalized intersection
- Northbound/Southbound: one travel lane
- Eastbound: one travel lane
- Textured crosswalks are provided on the east and west approaches, standard crosswalks are provided on the north and south approaches

Metcalfe Street/Gilmour Street

- Signalized intersection
- Northbound: three travel lanes
- Eastbound: one travel lane
- Ladder crosswalks are provided on the north and south approaches, a textured crosswalk is provided on the east approach, and a standard crosswalk is provided on the west approach

4.1.3 Driveways

In accordance with the City's 2017 TIA guidelines, a review of adjacent driveways along the boundary roads (within 200m of the subject site) was conducted:

Gilmour Street, north side:

- Four driveways to residential dwellings at 355, 359, 371, and 375 Gilmour Street
- One laneway which connects Gilmour Street to McLaren Street

Gilmour Street, south side:

- Three driveways to residential dwellings at 336, 340, and 350 Gilmour Street
- One driveway to a paid parking lot at 370 Gilmour Street
- Two rear yard driveways to the commercial buildings at 365 Bank Street and 487 Lewis Street

O'Connor Street, east side:

- One driveway to a residential building at 261 O'Connor Street
- One driveway to a paid parking lot and office building at 267 O'Connor Street

O'Connor Street, west side:

- One gated driveway to the Embassy of Ukraine at 310 Somerset Street West
- One driveway to the residential buildings at 250 O'Connor Street and 331 MacLaren Street
- One driveway to the residential building at 332 Gilmour Street
- One driveway to a parking lot serving the law office at 304 O'Connor Street
- One driveway to the residential building at 345 O'Connor Street
- One driveway to the office building at 310 O'Connor Street
- One driveway to the residential building at 314 O'Connor Street

4.1.4 Pedestrian and Cycling Facilities

Within the vicinity of the subject site, sidewalks are provided along both sides of all study area roadways.

A bi-directional cycle track is provided along the east side of O'Connor Street, from Laurier Avenue West to Pretoria Avenue. Bike lanes are also provided on both sides of O'Connor Street from Pretoria Avenue to First Avenue.

The City of Ottawa's 2013 Cycling Plan identifies O'Connor Street and Metcalfe Street as Spine Cycling Routes, and Bank Street as a Local Route in the Ultimate Cycling Network. Gilmour Street is not identified as a cycling route.

4.1.5 Transit

The nearest bus stops to the subject site are summarized in the following table. An aerial view of these stops can be found in **Figure 2**.

Table 1: OC Transpo Stops

OC Transpo Bus Stop	Location	Route(s) Serviced
#2483	East side of Bank Street, south of Lewis Street	6 & 7
#7665	West side of Bank Street, across from Lewis Street	6 & 7
#1902	East side of Bank Street, north of Somerset Street West	6, 7 & 11
#1548	North side of Somerset Street West, west of Bank Street	11
#2488	West side of Bank Street, south of Somerset Street West	6 & 7
#2374	North side of Gladstone Avenue, east of O'Connor Street	14
#7669	South side of Gladstone Avenue, west of O'Connor Street	14

OC Transpo Route 6 travels from Rockcliffe to Greenboro Transit Station. It operates seven days a week, with frequent all day service.

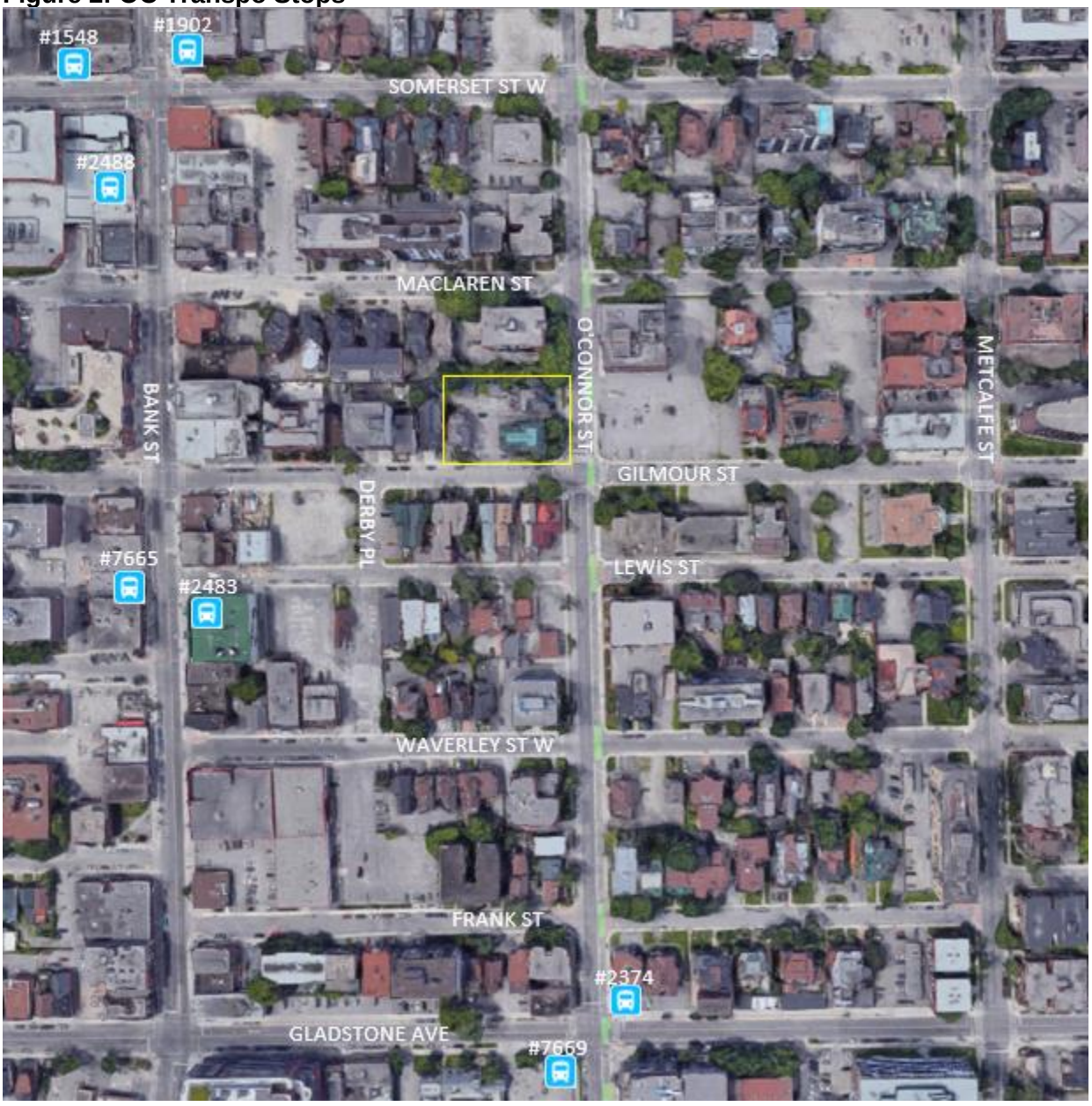
OC Transpo Route 7 travels from St Laurent Transit Station to Carleton University. It operates seven days a week, with frequent all day service.

OC Transpo Route 11 travels from Lincoln Fields Transit Station to Parliament. It operates seven days a week, with frequent all day service.

OC Transpo Route 14 travels from St Laurent Transit Station to Carlington. It operates seven days a week, with all day service.

OC Transpo Route information is included in **Appendix C**.

Figure 2: OC Transpo Stops



4.1.6 Existing Area Traffic Management Measures

Traffic calming measures have been implemented within the study area, including speed humps along Gilmour Street, from Bronson Avenue to Salisbury Place. These measures were implemented per the recommendations of the 1998 *Centretown – Kent Street Traffic Calming Plan.*

Currently, there are no other existing Area Traffic Management (ATM) measures within the study area.

4.1.7 Existing Traffic Volumes

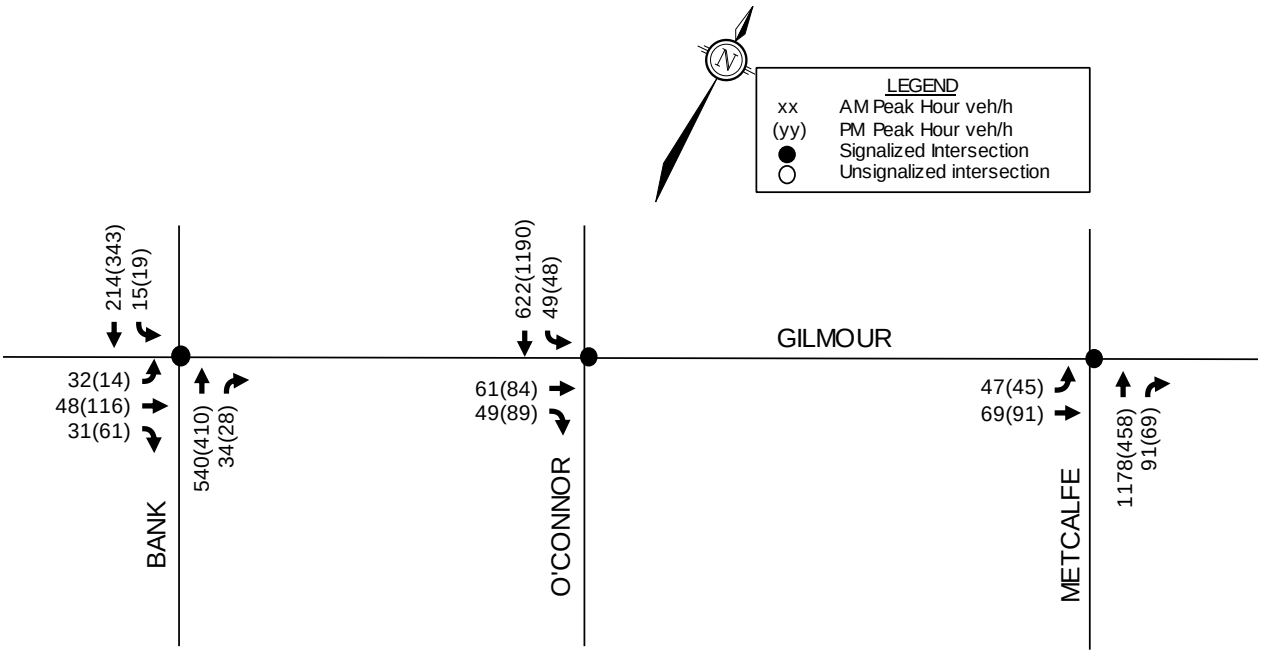
Weekday traffic counts were obtained from the City of Ottawa at the study area intersections to determine the existing pedestrian, cyclist and vehicular traffic volumes. The traffic counts were completed on the following dates:

- Metcalfe Street/Gilmour Street — April 4, 2017 (Tuesday)
- O'Connor Street/Gilmour Street — March 21, 2017 (Tuesday)
- Bank Street/Gilmour Street — August 25, 2015 (Tuesday)

Traffic count data is included in **Appendix D**.

Existing traffic volumes within the study area are shown in **Figure 3**.

Figure 3: Existing Traffic Volumes



4.1.8 Collision Records

Historical collision data from the last five years was obtained from the City's Public Works and Service Department for the study area intersections. Copies of the collision summary report are included in **Appendix E**.

The collision data has been evaluated to determine if there are any identifiable collision patterns. **Table 2** summarizes the number of collisions at each intersection from January 1, 2013 to December 31, 2017.

Table 2: Reported Collisions

Location	Number of Reported Collisions
Bank Street/Gilmour Street	9
Gilmour Street/O'Connor Street	9
Bank Street between MacLaren Street and Gilmour Street	7
Metcalfe Street/Gilmour Street	6
O'Connor Street between MacLaren Street and Gilmour Street	4

Bank Street/Gilmour Street
A total of nine collisions were reported at this intersection over the course of the last five years. Of these, there were four rear end impacts, two turning movement impacts, one angle impact, one sideswipe, and one 'other' collision. Three of the collisions caused injuries, but none caused fatalities. One collision involved a cyclist.

Gilmour Street/O'Connor Street
A total of nine collisions were reported at this intersection over the course of the last five years. Of these, there were three turning movement impacts, two sideswipes, two 'other' impacts, one rear end impact, and one angle impact. Two of the collisions caused injuries, but none caused fatalities. One collision involved a pedestrian.

Bank Street between MacLaren Street and Gilmour Street
A total of seven collisions were reported at this location over the course of the last five years. Of these, there were three 'unattended vehicle' collisions, two sideswipes, one rear end impact, and one approaching impact. Two of the collisions caused injuries, but none caused fatalities.

Metcalfe Street/Gilmour Street
A total of six collisions were reported at this intersection over the course of the last five years. Of these, there were three turning movement impacts, two sideswipes, and one angle impact. All collisions were reported as property damage only.

O'Connor Street between MacLaren Street and Gilmour Street
A total of four collisions were reported at this location over the course of the last five years. Of these, there was one turning movement impact, one unattended vehicle collision, one sideswipe impact, and one collision with a pedestrian. One collision caused injuries, but none caused fatalities.

4.2 Planned Conditions

4.2.1 Planned Roadway Improvements

To the north, Stage 2 of the O'Connor Bikeway will extend north on O'Connor Street from Laurier Avenue to Wellington Street to connect to the future Cross-Town Bikeway #1 along Wellington Street. To the south, the Ottawa Cycling Plan identifies a future extension of Cross-Town Bikeway

#5 east from the O'Connor Street/Fifth Avenue intersection across a future bridge over the Rideau Canal.

The City of Ottawa's Transportation Master Plan (TMP) does not identify any roadway or transit projects along the boundary streets within its Affordable Road Network, and Affordable Rapid Transit and Transit Priority Network.

4.2.2 Other Area Developments

A Transportation Brief (by Parsons) in support of a Zoning By-law Amendment was submitted to the City in May 2014 for a residential development at 267 O'Connor Street. The proposal, consisting of 510 high-rise condominium units and approximately 4,300 ft^2 of ground floor retail, would replace the existing six storey office building and pay/display parking lot on-site. The proposed driveway would be to MacLaren Street, and the existing driveway to O'Connor Street would be closed.

4.3 Study Area and Time Periods

The City's TIA Guidelines suggest the study area should include all signalized intersections within 400m of the site in urban conditions. However, as the development does not meet the trip generation trigger, a reduced study area is proposed. The proposed study area for this report includes the intersections of O'Connor Street/Gilmour Street, Bank Street/Gilmour Street, Metcalfe Street/Gilmour Street, and the site access. As Gilmour Street is a one-way, this proposed study area will capture all vehicles arriving from and departing to all directions.

The time periods chosen for this TIA are the weekday AM and PM peak hours. The TIA will review the 2021 build out year and the 2026 horizon year.

4.4 Exemptions Review

This module reviews possible exemptions from the final TIA, as outlined in the TIA Guidelines. As described in Section 3.0, the trip generation trigger was not met. Therefore, the Network Impact Component (Modules 4.5 to 4.9) of the TIA analysis is exempt from further review.

The applicable exemptions for this site are shown in **Table 3**.

Table 3: TIA Exemptions

Module	Element	Exemption Criteria	Exemption Applies
Design Review Component			
4.1 Development Design	*4.1.2* Circulation and Access	• Only required for site plans	No
	4.1.3 New Street Networks	• Only required for plans of subdivision	Yes
4.2 Parking	*4.2.1* Parking Supply	• Only required for site plans	No
	4.2.2 Spillover Parking	• Only required for site plans where parking supply is 15% below unconstrained demand	Yes
Network Impact Component			
4.5 Transportation Demand Management	*All elements*	• Not required for site plans expected to have fewer than 60 employees and/or students on location at any given time	Yes
4.6 Neighbourhood Traffic Management	*4.6.1* Adjacent Neighbourhoods	• Only required when the development relies on local or collector streets for access and total volumes exceed ATM capacity thresholds	Yes
4.8 Network Concept	*All elements*	• Only required when proposed development generates more than 200 person-trips during the peak hour in excess of the equivalent volume permitted by the established zoning	Yes

Although exempt from the analysis, City staff have requested the TIA include Module 4.5: Transportation Demand Management (TDM).

The proposed zoning (R5 zone, with a maximum height of 6 storeys) is tailored to the proposed development. As described in Section 5.1.1, the proposed development is anticipated to generate 21 person trips during the AM peak hour and 37 person trips during the PM peak hour, which is well short of the 200-person trip threshold for the Network Concept module. The only additional use that is permitted in the R5 zone, compared to the existing R4 zone, is a 75m^2 convenience market on the ground floor. A 75m^2 convenience market is anticipated to generate approximately 64 person trips during the AM peak hour and 50 person trips during the PM peak hour, based on land use code 851 in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. A convenience market is not proposed as part of this Site Plan application. However, if a convenience market was considered, the additional trips would not push the total trips above the 200-person trip threshold compared to the established zoning. Based on the foregoing, Module 4.8: Network Concept is exempt from further review.

Based on the foregoing, the following modules will be included in the TIA report:

- Module 4.1: Development Design
- Module 4.2: Parking
- Module 4.3: Boundary Streets
- Module 4.4: Access Design
- Module 4.5: Transportation Demand Management

5.0 FORECASTING

5.1 Development-Generated Traffic

5.1.1 Trip Generation

The subject properties currently contain three residential buildings, with a total of seventeen residential dwelling units. One of the buildings contains a medical practice (approximately 1,500 square feet) on the ground floor. The proposed development, consisting of one six storey residential building, will provide a total of 65 new residential units.

Trips generated by the existing land uses and the proposed development have been estimated using the peak hour rates identified in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition. For comparison, trips generated by the residential units have also been estimated using the City's 2009 *TRANS Trip Generation Manual*.

Trips generated by the ground floor medical practice have been estimated using the ITE Medical/Dental Office Building Land Use Code 720. Trips generated by the existing and proposed residential units have been estimated using ITE Multi-Family Housing (Mid-Rise) Land Use Code 221 which uses data from apartment, townhouse and condominiums that have between three and nine levels (floors). For comparison, trips generated by the residential units have also been estimated using the TRANS recommended rates for mid-rise apartments in the core area.

Trips generated using the ITE rates have been converted to person trips by using an ITE Trip to Person Trip adjustment factor of 1.28, consistent with the TIA Guidelines. Trips generated using the TRANS rates have been converted to person trips using the assumed modal shares in the 2009 *TRANS Trip Generation Manual*. The Person Trips generated by the existing land uses and the proposed development are summarized in **Table 4**.

Table 4: Person Trip Generation

Land Use	ITE Code	Units/ GFA	AM Peak (PPH)			PM Peak (PPH)		
			IN	OUT	TOT	IN	OUT	TOT
ITE Trip Generation								
Existing Development								
Multifamily Housing (Mid-Rise)	221	17	1	5	6	5	4	9
Medical Office Building	720	1,500 ft^2	5	1	6	3	6	9
Total			**6**	**6**	**12**	**8**	**10**	**18**
Proposed Redevelopment								
Multifamily Housing (Mid-Rise)	221	65	8	21	29	23	14	37
Total			**8**	**21**	**29**	**23**	**14**	**37**
Net Person Trips			**2**	**16**	**17**	**15**	**4**	**19**
TRANS Trip Generation								
Existing Development								
Mid-Rise Apartments	-	17	2	7	9	6	4	10
Medical Office Building	720	1,500 ft^2	5	2	7	3	6	9
Total			**7**	**9**	**16**	**9**	**10**	**19**
Proposed Redevelopment								
Mid-Rise Apartments	-	65	10	31	41	28	17	45
Total			**10**	**31**	**41**	**28**	**17**	**45**
Net Person Trips			**3**	**22**	**25**	**19**	**7**	**2**

It is recognized that the use of the 2009 TRANS Trip Generation Manual is preferred by the City of Ottawa to estimate the trip generation of residential developments. The TRANS rates are based on local data from 2009, using Origin-Destination survey data from 2005, and have a smaller sample size. The person trip conversion has not been as thoroughly tested as the conversion of ITE rates using a person trip adjustment factor of 1.28. Based on the foregoing, the ITE rates for residential developments have been carried forward for the residential units. As such, trip generation based on the ITE rates has been carried forward in this analysis. It is noted that under either scenario, the net additional trips generated by the proposed development does not exceed the 60 person trip threshold identified in the TIA Guidelines.

The modal shares for the proposed development are anticipated to be consistent with the modal shares as outlined in the 2011 TRANS *O-D Survey Report*, specific to the Ottawa Inner Area region. The modal share values applied are based on all trips from/within the Ottawa Inner Area district in the AM peak hour and all trips to/within the Ottawa Inner Area district in the PM peak hour. A full breakdown of the projected person trips by modal share are shown in **Table 5**.

Table 5: Person Trips by Modal Share

Travel Mode	Modal Share	AM Peak			PM Peak		
		IN	OUT	TOT	IN	OUT	TOT
Existing Development							
Person Trips		6	6	12	8	10	18
Auto Driver	35%	2	2	4	3	4	7
Auto Passenger	10%	1	1	2	1	1	2
Transit	20%	1	1	2	1	2	3
Non-Auto	35%	2	2	4	3	3	6
Proposed Redevelopment							
Person Trips		8	21	29	23	14	37
Auto Driver	35%	3	8	11	8	6	14
Auto Passenger	10%	1	3	4	3	1	4
Transit	20%	1	4	5	4	3	7
Non-Auto	35%	3	7	10	8	4	12
Difference							
Net Person Trips		**2**	**16**	**17**	**15**	**4**	**19**
Auto Driver	**35%**	**1**	**6**	**6**	**5**	**2**	**7**
Auto Passenger	**10%**	**0**	**2**	**2**	**2**	**0**	**2**
Transit	**20%**	**0**	**3**	**3**	**3**	**1**	**4**
Non-Auto	**35%**	**1**	**5**	**6**	**5**	**1**	**6**

From the previous table, the proposed development is projected to generate an additional six vehicle trips during the AM peak hour and seven vehicle trips during the PM peak hour.

As the development does not meet the 60 person trip trigger discussed in Section 3.0, trip distribution and trip assignment is not required.

5.2 Background Traffic

A review of the City of Ottawa's Strategic Long Range Model was conducted, comparing snapshots of 2011 and 2031 AM peak hour volumes. On the roadways within and around the study area, the snapshots suggest a growth rate between -3% and +2% per annum.

The City's 2013 TMP projects a 20% growth in population within the 'Inner Area' of Ottawa between 2011 and 2031, equating to a growth rate of approximately 1% per annum. The TMP also outlines transit and non-auto share targets for 2031, based on the observed shares in 2011. For the Inner Area during the AM peak period, the TMP identifies an observed transit share of 15% in 2011 and a target transit share of 20% in 2031 (equating to a growth rate of approximately 1% per annum), as well as an observed non-auto share of 59% in 2011 and a target non-auto share of 64% in 2031 (equating to a growth rate of approximately 0.5% per annum).

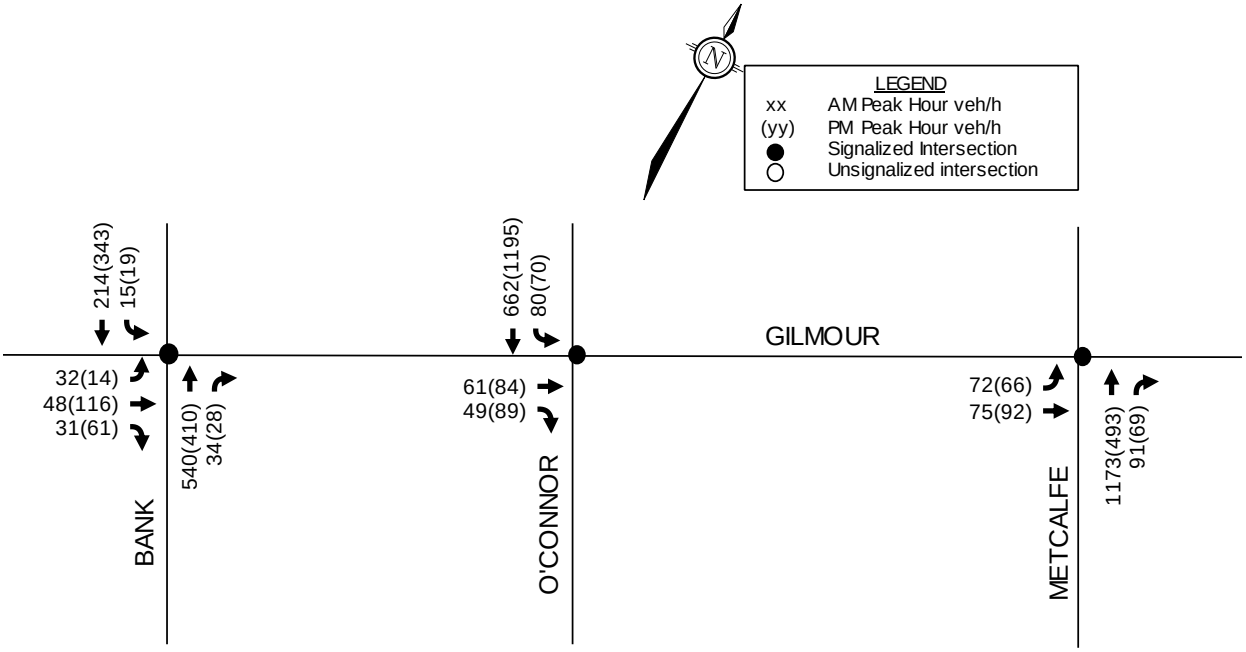
Traffic within the study area is not anticipated to grow significantly within the horizon year. For the purposes of this analysis, traffic within the study area is anticipated to remain generally consistent

with the existing condition. No growth rate has been applied to the existing traffic volumes within the study area.

A summary of other area developments was described in Section 4.2.2. Traffic from the proposed development at 267 O'Connor Street has been added to background traffic in the study area. Relevant excerpts from the 2014 Transportation Overview are included in **Appendix F**.

Background traffic volumes are shown in **Figure 4**.

Figure 4: Background Traffic Volumes



6.0 ANALYSIS

6.1 Development Design

6.1.1 Design for Sustainable Modes

Pedestrian walkways will be provided to connect to the existing facilities along Gilmour Street and O'Connor Street, as shown on the site plan. Sidewalks will be depressed and continuous across the proposed access.

The nearest bus stops to the subject site are described in Section 4.1.5.

OC Transpo's service design guideline for peak period service is to provide service within a five minute (400m) walk of the home, school and work location of 95% of urban residents. The actual walking distance from the main building entrance to the nearest bus stops was measured. Stop #2483 is a 235m walk, stop #7665 is a 240m walk, stop #1902 is a 355m walk, stop #1548 is a

385m walk, stop #2374 is a 265m walk, and stop #7669 is a 285m walk from the proposed development.

Bicycle parking for the proposed development will be in accordance with the City of Ottawa's Zoning By-Law (ZBL) and will be located in the underground parking garage. Bicycle parking requirements are discussed further in Section 6.2.

A review of the Transportation Demand Management (TDM) – Supportive Development Design and Infrastructure Checklist has been completed. A copy of the TDM checklist is included in **Appendix G**. All required TDM measures in the TDM checklist are met.

6.1.2 Circulation and Access

The proposed development will be served by one left-in, left-out access to an underground parking garage on Gilmour Street.

Garbage bins will be brought out for curbside municipal collection along Gilmour Street.

The proposed fire route is curbside along Gilmour Street.

6.2 Parking

The subject site is located in Area X on Schedule 1A of the City of Ottawa's ZBL. Minimum vehicular and bicycle parking rates for the proposed development are identified in the ZBL and are summarized in the following table.

Table 6: Parking Requirements per Zoning By-Law

Land Use	Rate	Units	Required	Proposed
Vehicle Parking				
Dwelling, Mid-Rise Apartment	0.5 per dwelling unit[1,2]	65 units	24 resident	24 resident
	0.1 visitor space per dwelling unit[3]		5 visitor	5 visitor
Bicycle Parking				
Apartment Building	0.5 per dwelling unit	65 units	33	60

1: within Area X, for a residential building, no off-street motor vehicle parking is required to be provided for the first twelve residential units
2: allowable 10% reduction for parking below grade
3: within Area X, no visitor parking spaces are required for the first twelve dwelling units on a lot

Based on the foregoing, the proposed vehicular and bicycle parking spaces will meet the minimum requirements of the ZBL. All parking spaces will be provided below grade.

For a parking lot with 29 spaces, the City of Ottawa's *Accessibility Design Standards* outlines the requirement for two accessible spaces. Of these, one Type A space and one Type B space are required. Vehicular parking in the underground parking lot will conform to the requirements of the City's *Accessibility Design Standards*.

6.3 Boundary Street Design

This section provides a review of the boundary streets (Walkley Road and St. Laurent Boulevard) using complete streets principles. The Multi-Modal Level of Service (MMLOS) guidelines produced by IBI Group in 2015 were used to evaluate the LOS of the boundary roadways for each mode of transportation. Schedule 'B' of the City of Ottawa's Official Plan indicates both boundary roadways are in the 'General Urban Area'.

Targets for the Pedestrian Level of Service (PLOS), Bicycle Level of Service (BLOS), Transit Level of Service (TLOS), Truck Level of Service (TkLOS), and Vehicular Level of Service (Auto LOS) for the study area roadways are based on the targets for General Urban Area, as identified in Exhibit 22 of the MMLOS guidelines.

The following summarizes the findings of the MMLOS segment analysis.

6.3.1 Pedestrian Level of Service (PLOS)

Exhibit 4 of the MMLOS guidelines has been used to evaluate the segment PLOS of the boundary roadways. Exhibit 22 of the MMLOS guidelines suggest a target PLOS C for all road classes within the General Urban Area. The results of the segment PLOS analysis are summarized in the following table.

Table 7: PLOS Segment Analysis

Sidewalk Width	Boulevard Width	Avg. Daily Curb Lane Traffic Volume	Presence of On-Street Parking	Operating Speed	Segment PLOS
O'Connor Street (East Side)					
2m	>2m	> 3,000 vpd	No	50 km/h	B
O'Connor Street (West Side)					
1.5m	0.5-2m	> 3,000 vpd	Yes	50 km/h	C
Gilmour Street (North Side)					
1.5m	0m	< 3,000 vpd	Yes	50 km/h	E
Gilmour Street (South Side)					
1.5m	0m	< 3,000 vpd	No	50 km/h	E

6.3.2 Bicycle Level of Service (BLOS)

Exhibit 11 of the MMLOS guidelines has been used to evaluate the segment BLOS of the boundary roadways. Exhibit 22 of the MMLOS guidelines suggest a target BLOS C for Spine Routes on arterial roads (O'Connor Street), and a target BLOS D for non-bike routes on local roadways (Gilmour Street) in the General Urban Area. The results of the segment BLOS analysis are in the following table.

Table 8: BLOS Segment Analysis

Road Class	Bike Route	Type of Bikeway	Travel Lanes	Operating Speed	Segment BLOS
O'Connor Street					
Arterial	Spine	Cycle Track	2	50km/h	A
Gilmour Street					
Local	N/A	Mixed Traffic	1	50km/h	B

6.3.3 Transit Level of Service (TLOS)

Exhibit 22 of the MMLOS guidelines do not suggest a target TLOS for roadways without rapid transit or transit priority designations. No transit service is currently provided on O'Connor Street or Gilmour Street. As such, the TLOS of these streets has not been evaluated.

6.3.4 Truck Level of Service (TkLOS)

Exhibit 20 of the MMLOS guidelines has been used to evaluate the segment TkLOS of the boundary roadways. Exhibit 22 of the MMLOS guidelines suggests a target TkLOS D for truck routes on arterial roadways (O'Connor Street), and there is no target TkLOS for non-truck routes on local roadways (Gilmour Street) in the General Urban Area. The results of the segment TkLOS analysis are summarized in the following table.

Table 9: TkLOS Segment Analysis

Curb Lane Width	Number of Travel Lanes per Direction	Segment TkLOS
O'Connor Street		
≤ 3.3m	2	C
Gilmour Street		
> 3.7m	1	B

6.3.5 Vehicular Level of Service (Auto LOS)

Exhibit 22 of the MMLOS guidelines suggest a target Auto LOS D for all roadways within the General Urban Area The typical lane capacity along the study area roadways are based on the City's guidelines for the TRANS Long-Range Transportation Model. The lane capacity along the boundary streets has been estimated based on roadway classification and general characteristics (i.e. suburban with limited access, urban with on-street parking, etc.). The results of the Auto LOS analysis are summarized in the following table.

Table 10: Auto LOS Segment Analysis

Direction	Directional Capacity	Traffic Volumes		V/C Ratio and LOS			
		AM Peak	PM Peak	AM Peak		PM Peak	
				V/C	LOS	V/C	LOS
O'Connor Street							
SB	1600	671	1279	0.42	A	0.80	C
Gilmour Street							
EB	400	110	173	0.28	A	0.43	A

6.3.6 Segment MMLOS Summary

A summary of the results of the segment MMLOS analysis for the boundary roadways is provided in the following table.

Table 11: Segment MMLOS Summary

Segment	PLOS	BLOS	TLOS	TkLOS	Auto LOS
O'Connor Street	C	A	-	C	C
Target	**C**	**C**	**-**	**D**	**D**
Gilmour Street	E	B	-	B	A
Target	**C**	**D**	**-**	**-**	**D**

The results of the segment MMLOS analysis can be summarized as follows:

- O'Connor Street meets the target PLOS;
- Gilmour Street does not meet the target PLOS;
- Both boundary streets meet the target BLOS;
- O'Connor Street meets the target TkLOS; and
- Both boundary streets meet the target Auto LOS.

<u>O'Connor Street</u>
O'Connor Street meets the target PLOS, BLOS, TkLOS, and Auto LOS.

<u>Gilmour Street</u>
Gilmour Street meets the target BLOS and Auto LOS but does not meet the target PLOS.

Gilmour Street is currently operating with a PLOS F. As part of the proposed development, the northern sidewalk along the Gilmour Street frontage will be widened to 2.0m. This will result in a PLOS B on the north side of Gilmour Street, meeting the target for the General Urban Area.

6.4 Access Intersection Design

The proposed development will be served by one left-in, left-out access to an underground parking garage on Gilmour Street. The ramp to the parking garage will accommodate vehicles entering and exiting the parking garage however it is intended for one-way vehicular traffic only.

Section 25 (c) of the City of Ottawa's *Private Approach By-Law* identifies a requirement for two-way accesses to have a width no greater than 9m, as measured at the street line. Section 107 (1)(a) of the *Zoning By-Law* identifies a minimum width requirement of 3.0m for a single traffic lane. The proposed access on Gilmour Street is approximately 3.4m in width, measured at the property line, thereby meeting the requirements.

Section 25 (m) of the *Private Approach By-Law* identifies a requirement to provide a minimum distance of 18m at the street line between the private approach and the nearest intersecting street line. The access along Gilmour Street is approximately 42m from the existing ROW of O'Connor Street, measured from the nearest edge of the access. Based on the spacing described, the minimum distance as outlined in the *Private Approach By-Law* is satisfied.

A review of the suggested minimum corner clearances to accesses at major intersections from the Transport Association of Canada (TAC) *Geometric Design Guide for Canadian Roads* was conducted. For an arterial road intersecting with a local road, with signals at the cross road, a minimum clearance of 15m (from nearest edge to nearest edge) is suggested between the intersection and any access. Based on the proposed spacing of the access, this minimum requirement is satisfied.

Section 25 (o) of the *Private Approach By-Law* identifies a requirement to provide a minimum spacing of 3m between the nearest edge of the private approach and the property line, as measured at the street line. The proposed access along Gilmour Street is located 3.5m from the western property line.

Section 25 (s) of the *Private Approach By-Law* identifies a maximum driveway grade of 6% for a distance of 6m for any private approach serving less than 50 parking spaces. The proposed underground parking lot access will have a maximum grade of 6% for a distance of 6m within the property, conforming to the requirements of the City's Private Approach By-law.

6.5 Transportation Demand Management

A review of the TDM Measures checklist was conducted and can be found in **Appendix G**. To encourage travel by sustainable modes, the following TDM measures will be implemented for the subject site:

- Display local area maps with walking/cycling access routes and key destinations at major entrances;
- Display relevant transit schedules and route maps at entrances; and
- Unbundle parking cost from monthly rent.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the foregoing, the conclusions and recommendations of this TIA can be summarized as follows:

Development Design

- Pedestrian walkways will be provided to connect to the existing facilities along Gilmour Street and O'Connor Street. Sidewalks will be depressed and continuous across the proposed access.
- OC Transpo stops #2483, #7665, #1902, #1548, #2374, and #7669 are all located within a 400m actual walking distance to the proposed development.
- All required Transportation Demand Management (TDM)-supportive development design measures in the TDM checklist are met.
- Garbage bins will be brought out for curbside municipal collection along Gilmour Street.
- The proposed fire route is curbside along Gilmour Street.

Parking

- The 29 proposed vehicular spaces and 60 proposed bicycle parking spaces will meet the minimum requirements of the Zoning By-Law (ZBL). All parking spaces will be provided below-grade.
- Vehicular parking in the underground parking lot will conform to the requirements of the City's *Accessibility Design Standards*.

Boundary Street Design

- O'Connor Street meets the target PLOS, BLOS, TkLOS, and Auto LOS.
- Gilmour Street meets the target BLOS and Auto LOS but does not meet the target PLOS. As part of the proposed development, the northern sidewalk along the Gilmour Street frontage will be widened to 2.0m. This will result in a PLOS B on the north side of Gilmour Street, meeting the target for the General Urban Area.

Access Design

- The proposed development will be served by one left-in, left-out access to an underground parking garage on Gilmour Street.
- The ramp to the parking garage will accommodate vehicles entering and exiting the parking garage however it is intended for one-way vehicular traffic only.
- The proposed access will be approximately 3.4m in width and is located approximately 42m from the Gilmour Street/O'Connor Street intersection. The width and location of the proposed access adheres to the requirements of the City's ZBL and Private Approach By-law.
- The underground parking lot access will have a maximum grade of 6% for a distance of 6m within the property, conforming to the requirements of the City's Private Approach By-law.

Transportation Demand Management

- To encourage travel by sustainable modes, the following TDM measures will be implemented for the subject site:
  - Display local area maps with walking/cycling access routes and key destinations at major entrances;
  - Display relevant transit schedules and route maps at entrances; and
  - Unbundle parking cost from monthly rent.

NOVATECH

Prepared by:

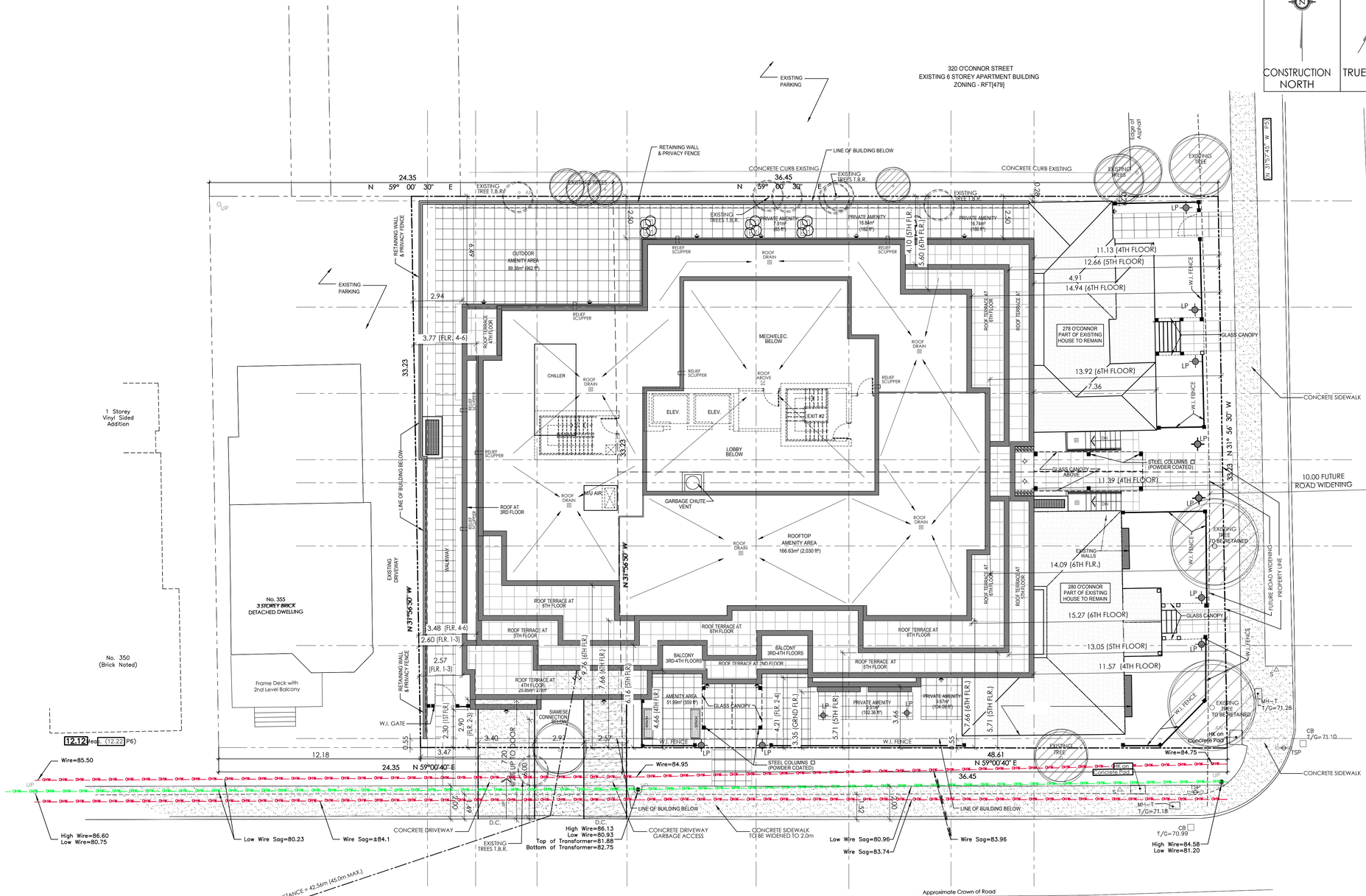
Rochelle Fortier, B.Eng.
E.I.T. | Transportation/Traffic

Reviewed by:

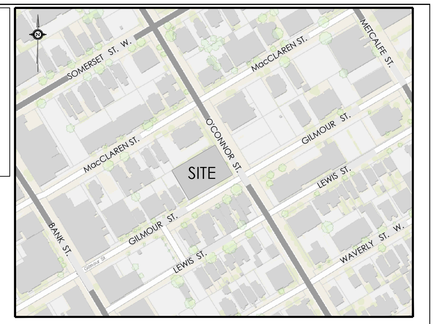
Brad Byvelds, P.Eng.
Project Coordinator | Transportation/Traffic

APPENDIX A

Site Plan



SITE PLAN
SCALE= 1:125



KEY PLAN: N.T.S.

City of Ottawa Zoning By-law 2008-250		
Zoning Information: R5B (Residential Fifth Density Zone, Subzone B)		
Proposed Apartment Dwelling, Mid-rise		
Zoning Mechanism	Required	Provided
R5B Provisions (Sections 163 & 164)		
Min. Lot Area	675m²	1614m²
Min. Lot Width	22.5m	33.23m
Max. Building Height	Varies	21.5m
Min. Front Yard Setback		
Existing Portion of Building	3m	3.92m
Proposed Portion of Building		1st-4th floors=11.13m
		5th Floor = 12.66m
		6th Floor = 13.92m
Min. Corner Side Yard Setback		
Existing Portion of Building	3m	0.79m*
Proposed Portion of Building		2.29m
Min. Rear Yard Setback		
Existing Portion of Building	7.5m	N/A
Proposed Portion of Building		1st-3rd Floors = 2.57m
		4th-6th Floors= 3.48m
Min. Interior Side Yard Setback		
Existing Portion of Building	7.5m	0.28m*
Proposed Portion of Building		2.5m
Min. Landscaped Area	30%	36.53%
Parking Provisions (Sections 101, 102 & 111)		
Min. Parking Spaces (Area X)		29 Spaces
Resident = #units -12 x 0.5 spaces/unit, minus 10%		
65-12=53x0.5=26.5-2.65=23.85	24 spaces	
Min. Visitor Parking Spaces (Area X)		
Visitor = #units - 12, multiplied by 0.1 spaces/unit		
65-12=53x0.1=5.3	5 spaces	
Min. Bicycle Parking Spaces	31 spaces	60 Spaces
Amenity Area Provisions (Section 137)		
Min. Total Amenity Area	372m²	941.41m²
Min. Communal Amenity Area	186m²	367.05m²
* Existing Non-complying Condition		

BUILDING INFORMATION
6 STOREY APARTMENT BUILDING

GROUND FLOOR -	**5- 1 BEDROOM**	
	1- STUDIO	**6 UNITS**
SECOND FLOOR-	8- 1 BEDROOM	
	4- 2 BEDROOM	12 UNITS
THIRD FLOOR-	8- 1 BEDROOM	
	4- 2 BEDROOM	12 UNITS
FOURTH FLOOR-	8- 1 BEDROOM	
	4- 2 BEDROOM	12 UNITS
FIFTH FLOOR-	7- 1 BEDROOM	
	3- 2 BEDROOM	10 UNITS
SIXTH FLOOR-	8- 2 BEDROOM	8UNITS
		60 UNITS TOTAL

EXISTING HERITAGE HOUSES
3- 1 BEDROOM
1-3 BEDROOM
1-4 BEDROOM
5- UNITS TOTAL

REFER TO SP-1a FOR DEMOLITION SITE PLAN

SITE PLAN TO BE READ IN CONJUNCTION WITH
- LANDSCAPE PLAN PREPARED BY:
  NOVATECH ENGINEERING CONSULTANTS LIMITED
  SUITE 200- 240 MICHAEL COWPLAND DRIVE
  OTTAWA ON K2M 1P6
- SITE SERVICING, GRADING & STORM WATER MANAGEMENT PLANS PREPARED BY:
  NOVATECH ENGINEERING CONSULTANTS LIMITED
  SUITE 200- 240 MICHAEL COWPLAND DRIVE
  OTTAWA ON K2M 1P6

SITE INFORMATION DERIVED FROM TOPOGRAPHIC PLAN OF SURVEY OF LOTS 12 AND 13 (WEST O'CONNOR STREET) AND LOT 43 AND PART OF LOT 42 (NORTH GILMOUR STREET) REGISTERED PLAN 15558 , CITY OF OTTAWA PREPARED BY, FARLEY, SMITH & DENIS SURVEYING LTD. , FEB. 4th, 2019

LEGEND:
- POT - POT LIGHT
- LP - LAMP POST
- WALL SCONCE
- UP - UTILITY POLE
- TSP - TRAFFIC SIGNAL POLE
- S - SIGN
- FH - FIRE HYDRANT

SCALE: 0 5 10 15 20M

M. David Blakely Architect Inc.
2200 Prince of Wales Dr. - Suite 101
Ottawa, Ontario K2E 6Z9
Phone (613) 226-8811 Fax (613) 226-7942

GENERAL NOTES:
1. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING AND VERIFYING ALL DIMENSIONS. ANY DISCREPANCY MUST BE REPORTED TO M. DAVID BLAKELY ARCHITECT INC.
2. ALL WORK AND MATERIALS TO BE IN COMPLAINCE WITH ALL CODES, REGULATIONS, & BY-LAWS
3. ADDITIONAL DRAWINGS MAY BE ISSUED FOR CLARIFICATION TO ASSIST THE PROPER EXECUTION OF WORK. SUCH DRAWINGS WILL HAVE THE SAME MEANING AND INTENT AS IF THEY WERE INCLUDED WITH THE PLANS IN CONTRACT DOCUMENTS
4. DO NOT SCALE DRAWINGS.
5. THIS REPRODUCTION SHALL NOT BE ALTERED.
6. THIS DRAWING SHALL NOT BE USED OR COPIED WITHOUT THE AUTHORIZATION OF THE ARCHITECT.
7. THIS DRAWING SHALL NOT BE USED FOR PERMIT OR CONSTRUCTION UNLESS THE DRAWING BEARS THE ARCHITECTS SEAL AND SIGNATURE.

SEAL

No.	DATE	DESCRIPTION	INIT.
1.	17/07/19	FOR SITE PLAN APPLICATION	JB

REVISIONS

A - DETAIL NUMBER
B - SHEET NUMBER (DETAIL REQUIRED)
C - SHEET NUMBER (DETAIL LOCATION)

PROJECT: 6 STOREY APARTMENT BUILDING
280 O'CONNOR ST.
OTTAWA, ONTARIO

CLIENT: AK GLOBAL MANAGEMENT INC.
680 Eagleson Road, P.O. Box 45011
Ottawa, Ontario K2M 2G9

DRAWING TITLE: SITE PLAN

DATE: JULY. 2019 | SCALE: 1 : 125
DRAWN BY: JB | CHECKED: MDB

SHEET No. REV No.: SP-1 RXX

APPENDIX B

TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	**278, 280 O'Connor Street and 347 Gilmour Street**
Description of Location	**Northwest corner of O'Connor Street and Gilmour Street**
Land Use Classification	**Residential**
Development Size (units)	**66 units**
Development Size (m^2)	
Number of Accesses and Locations	**1 left-in left-out access on Gilmour Street to underground parking**
Phase of Development	**1**
Buildout Year	

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

2. Trip Generation Trigger

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

Land Use Type	Minimum Development Size
Single-family homes	40 units
Townhomes or apartments	90 units
Office	3,500 m^2
Industrial	5,000 m^2
Fast-food restaurant or coffee shop	100 m^2
Destination retail	1,000 m^2
Gas station or convenience market	75 m^2

** If the development has a land use type other than what is presented in the table above, estimates of person-trip generation may be made based on average trip generation characteristics represented in the current edition of the Institute of Transportation Engineers (ITE) Trip Generation Manual.*

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

3. Location Triggers

	Yes	No
Does the development propose a new driveway to a boundary street that is designated as part of the City's Transit Priority, Rapid Transit or Spine Bicycle Networks?		X
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*	X	

**DPA and TOD are identified in the City of Ottawa Official Plan (DPA in Section 2.5.1 and Schedules A and B; TOD in Annex 6). See Chapter 4 for a list of City of Ottawa Planning and Engineering documents that support the completion of TIA).*

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

4. Safety Triggers

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

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

5. Summary

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

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

APPENDIX C

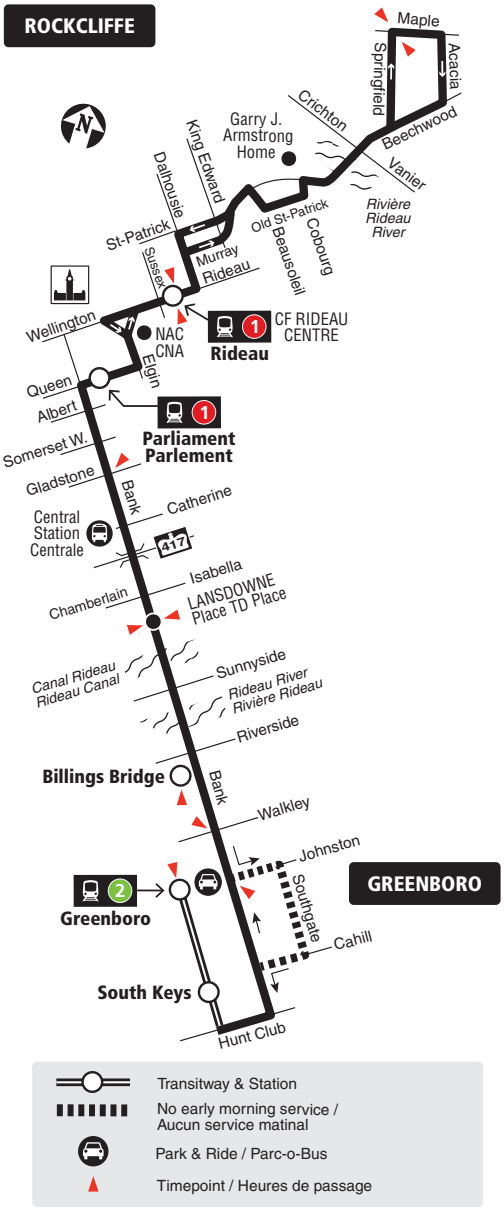
OC Transpo System Information

6 ROCKCLIFFE / GREENBORO

Fréquent

7 days a week / 7 jours par semaine

All day service
Service toute la journée



2018.09

Schedule / Horaire.....613-560-1000
Text / Texto 560560

plus your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Relations
Service à la clientèle **613-741-4390**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité **613-741-2478**

Effective September 2, 2018
En vigueur 2 septembre 2018

OC Transpo

INFO 613-741-4390
octranspo.com

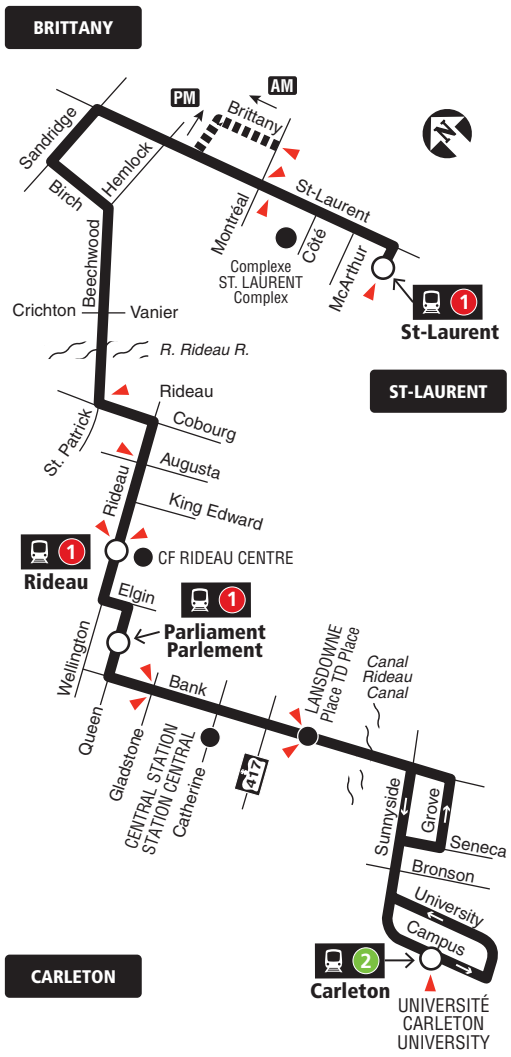
7 ST-LAURENT / CARLETON

Fréquent

7 days a week / 7 jours par semaine

All day service

Service toute la journée



Station

Peak periods only / Périodes de pointe seulement

Timepoint / Heures de passage

2018.09

Schedule / Horaire.....613-560-1000

Text / Texto 560560

plus your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Relations
Service à la clientèle **613-741-4390**

Lost and Found / Objets perdus..... **613-563-4011**

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

Effective Septembre 2, 2018
En vigueur 2 septembre 2018

OC Transpo

INFO 613-741-4390
octranspo.com

11

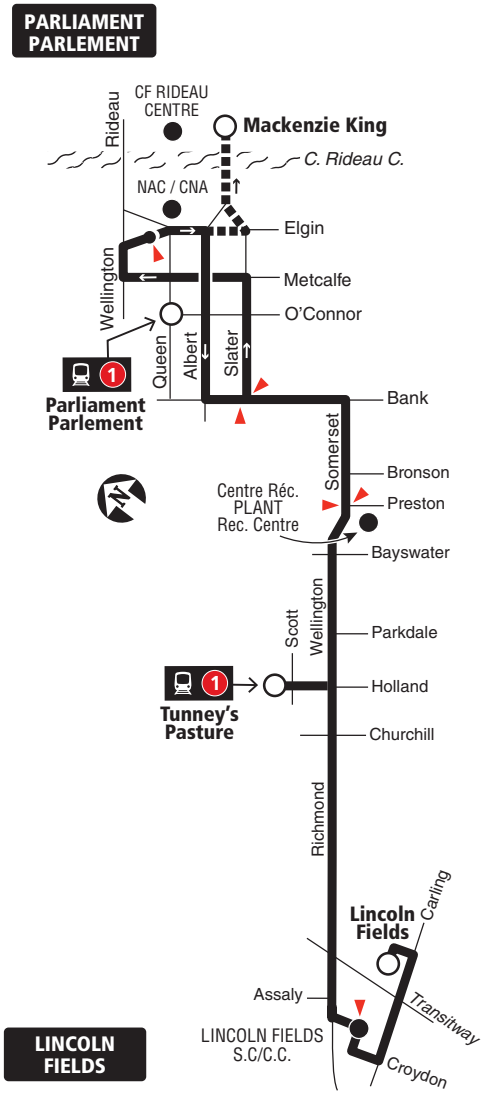
LINCOLN FIELDS
PARLIAMENT
PARLEMENT

Fréquent

7 days a week / 7 jours par semaine

All day service

Service toute la journée



Transitway & Station

Some trips / Quelques trajets

Timepoint / Heures de passage

2018.10

Schedule / Horaire.....613-560-1000

Text / Texto 560560

plus your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Customer Relations
Service à la clientèle **613-741-4390**

Lost and Found / Objets perdus..... **613-563-4011**

Security / Sécurité **613-741-2478**

Effective October 15, 2018
En vigueur 15 octobre 2018

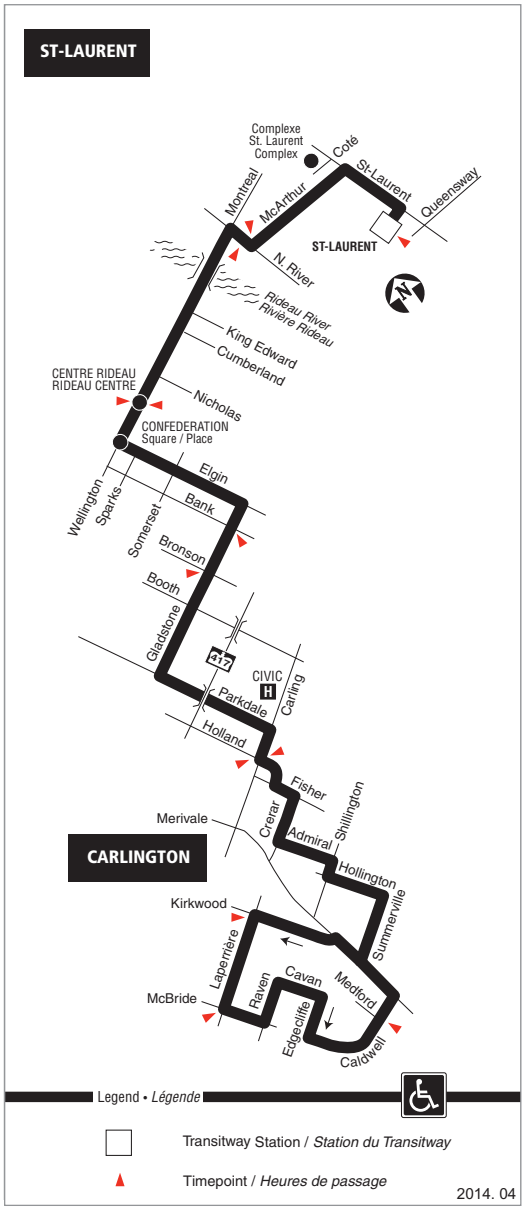
OC Transpo

INFO 613-741-4390
octranspo.com

OC Transpo

14 ST-LAURENT / CARLINGTON

7 days a week / 7 jours par semaine
All day service
Service toute la journée



Information / Renseignement.....**613-741-4390**

Customer Relations
Service à la clientèle **613-842-3600**

Lost and Found / Objets perdus **613-563-4011**

Schedule / Horaire.....**613-560-1000**

Text / Texto **560560**

plus your four digit bus stop number / *plus* votre numéro d'arrêt à quatre chiffres

Effective / En vigueur Sept 5 sept 2004

APPENDIX D

Traffic Count Data

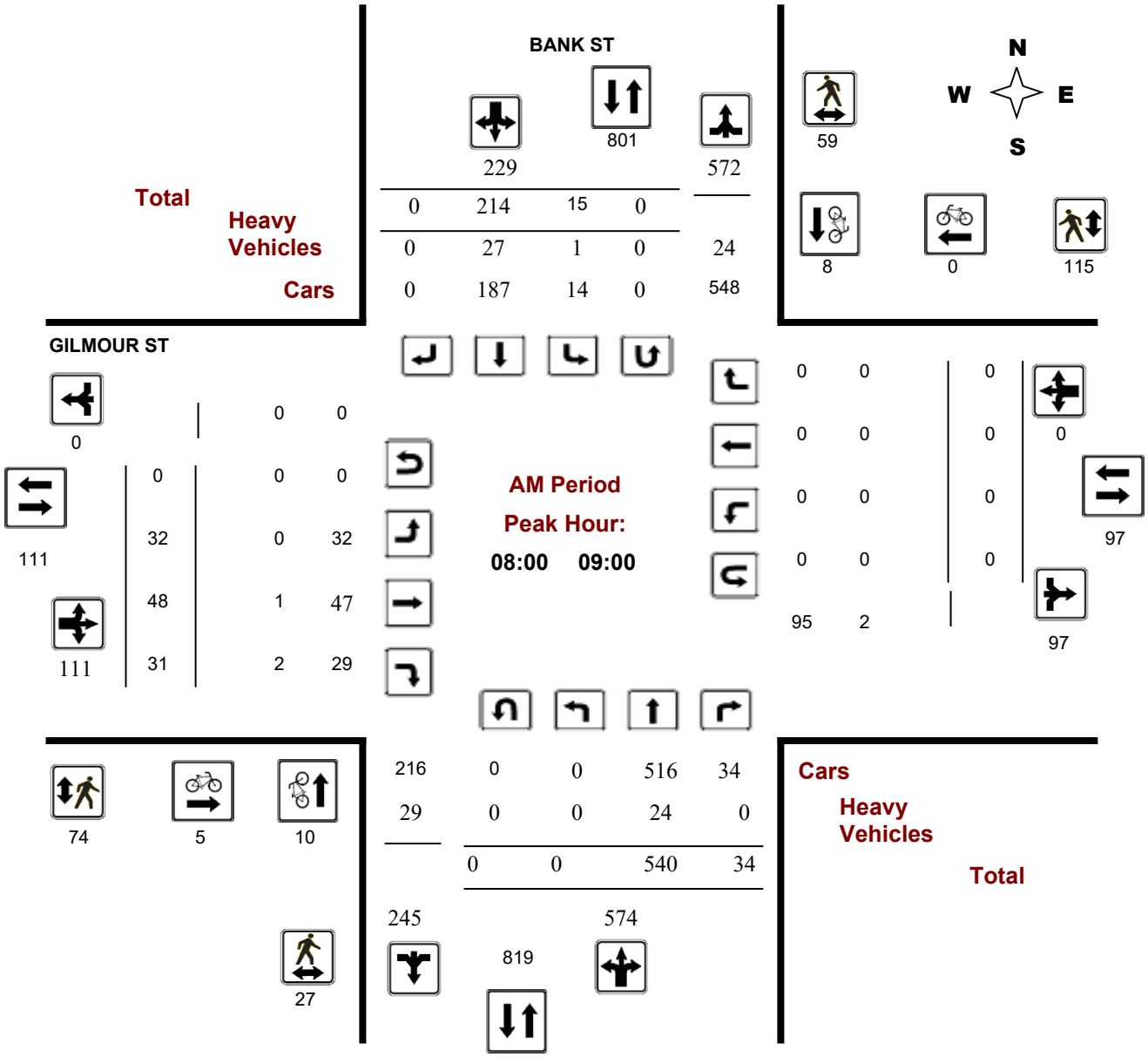
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BANK ST @ GILMOUR ST

Survey Date: Tuesday, August 25, 2015
Start Time: 07:00

WO No: 35291
Device: Jamar Technologies, Inc



Comments

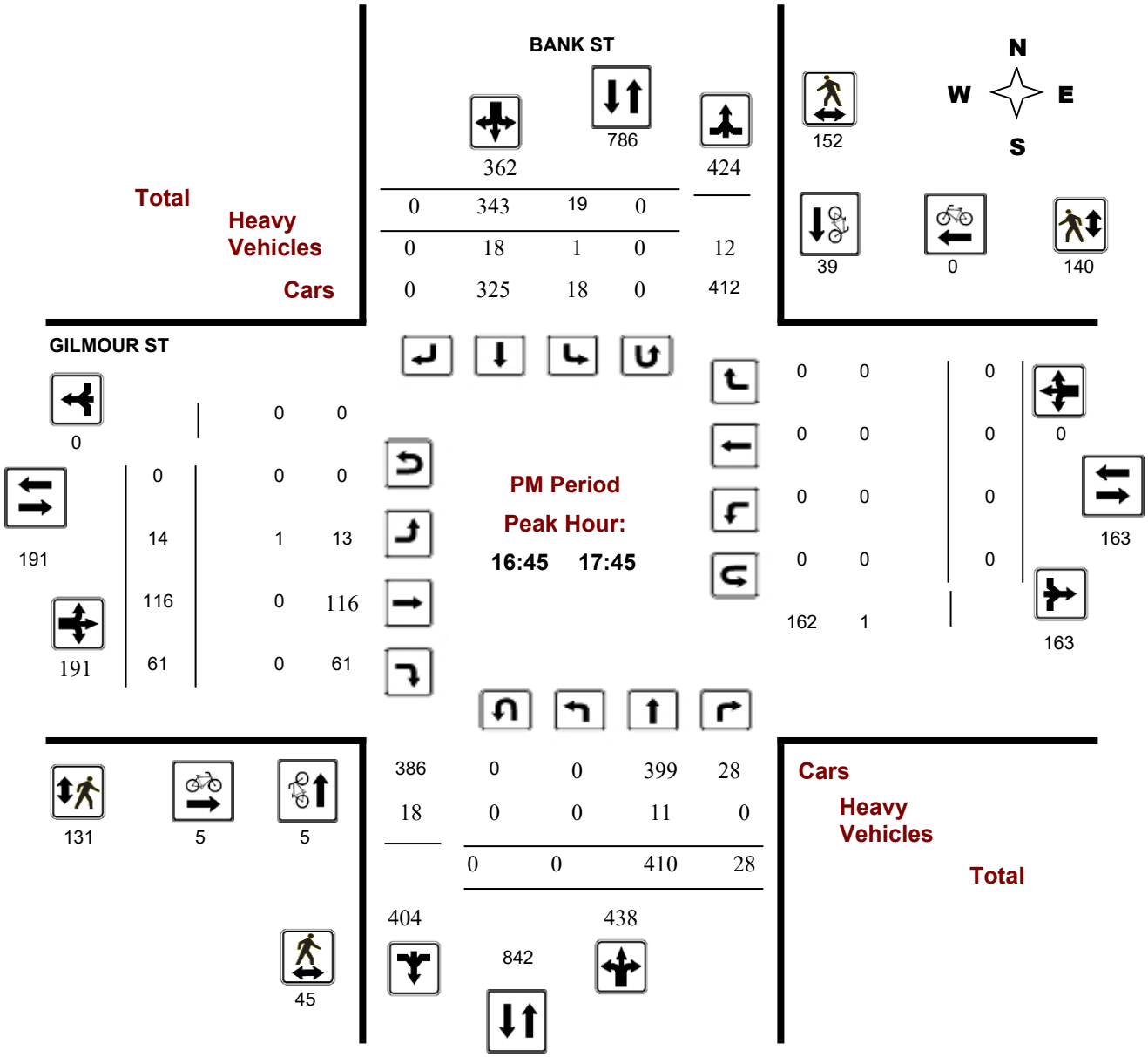
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

BANK ST @ GILMOUR ST

Survey Date: Tuesday, August 25, 2015
Start Time: 07:00

WO No: 35291
Device: Jamar Technologies, Inc



Comments

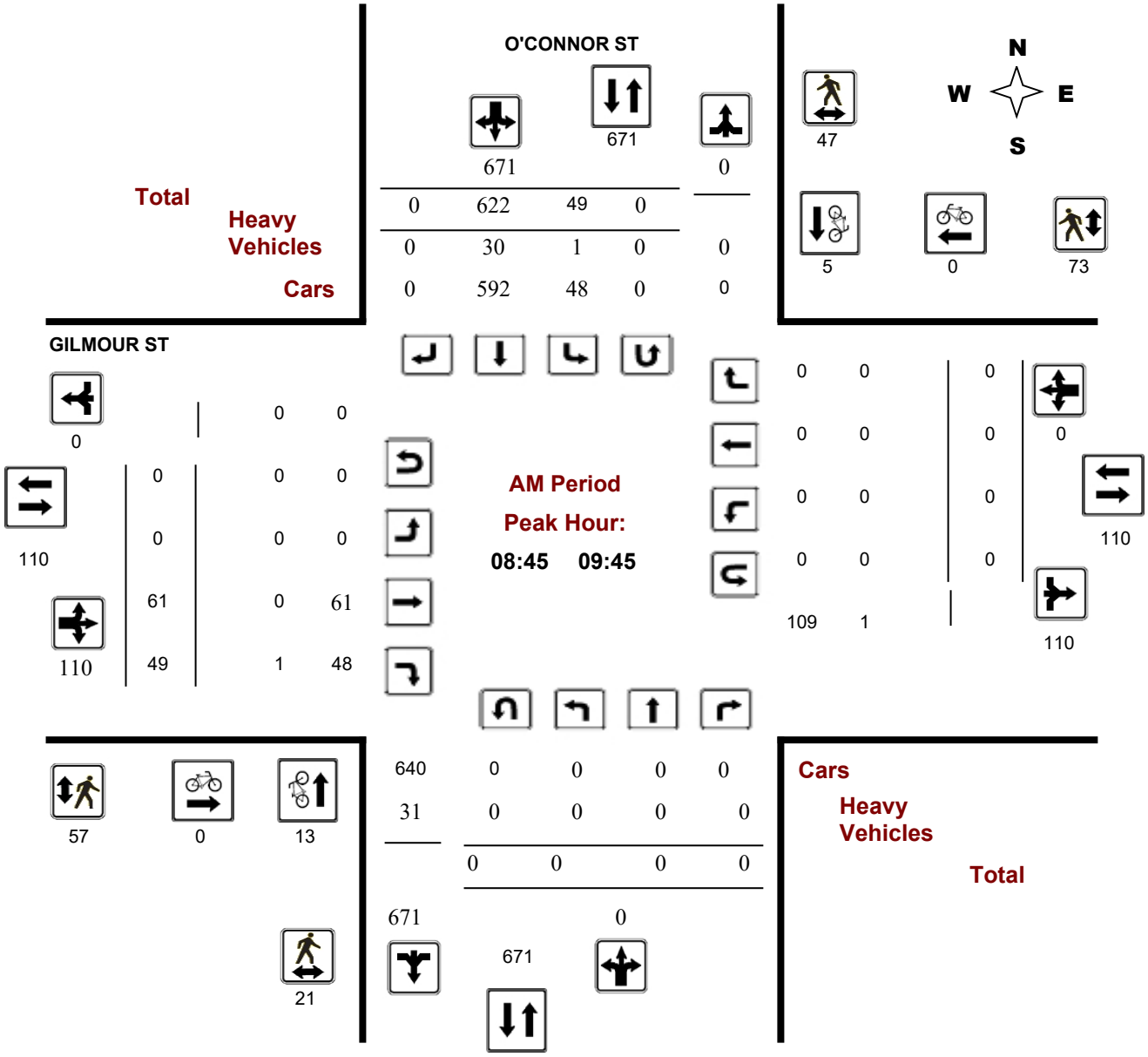
Transportation Services - Traffic Services

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



Comments

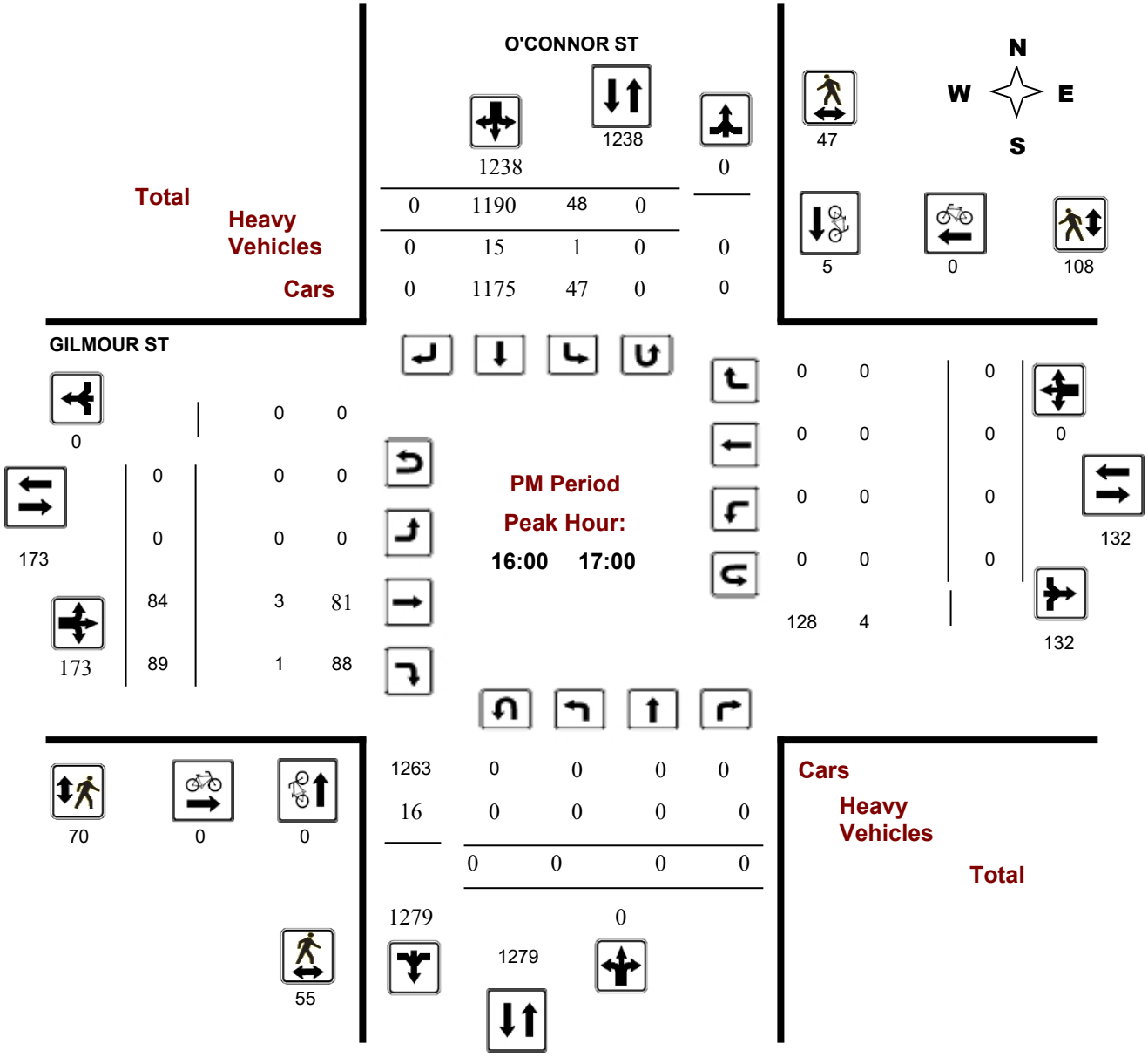
Transportation Services - Traffic Services

Turning Movement Count - Full Study Peak Hour Diagram

GILMOUR ST @ O'CONNOR ST

Survey Date: Tuesday, March 21, 2017 **WO No:** 36785

Start Time: 07:00 **Device:** Miovision



Comments

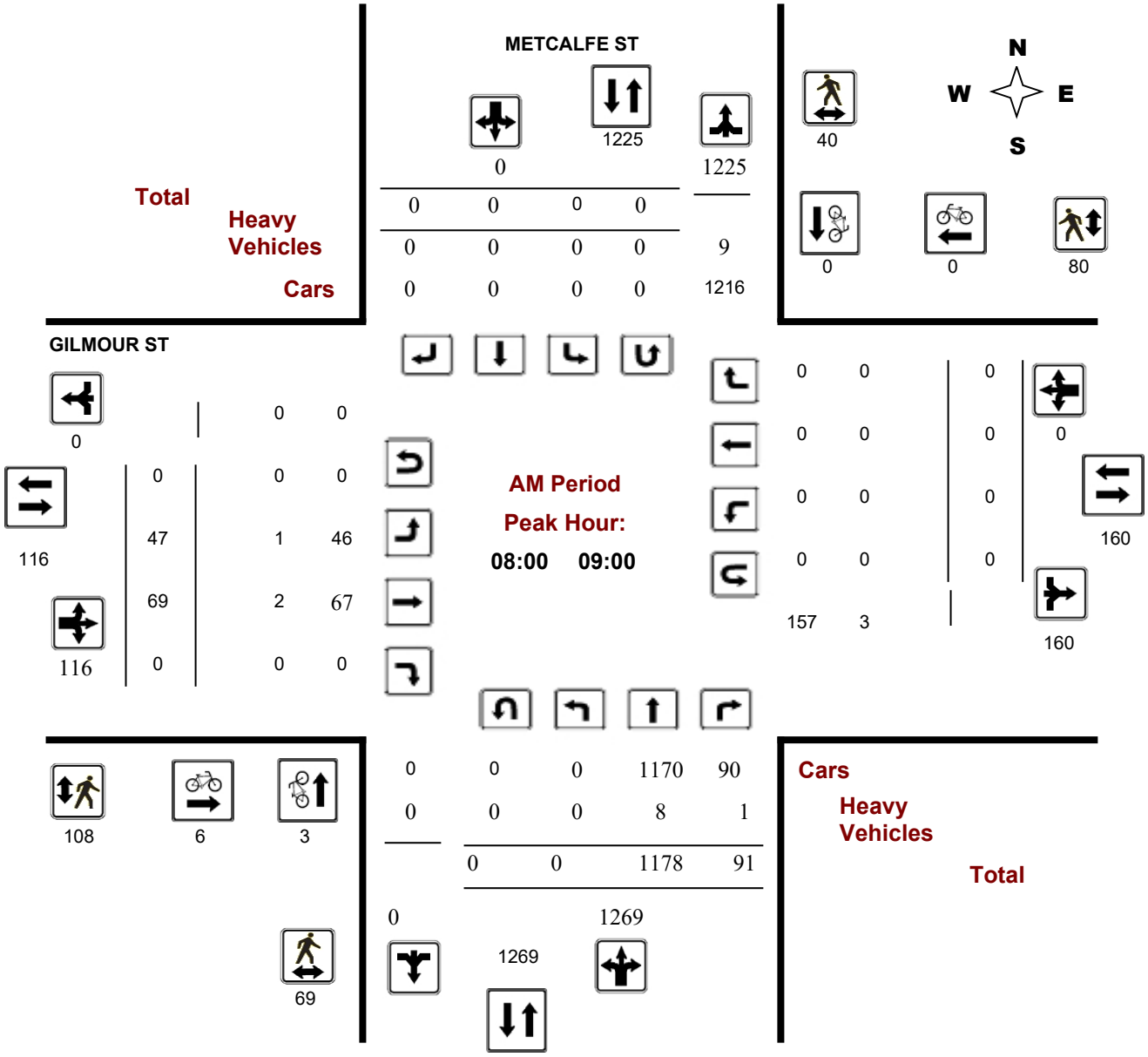
Transportation Services - Traffic Services

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

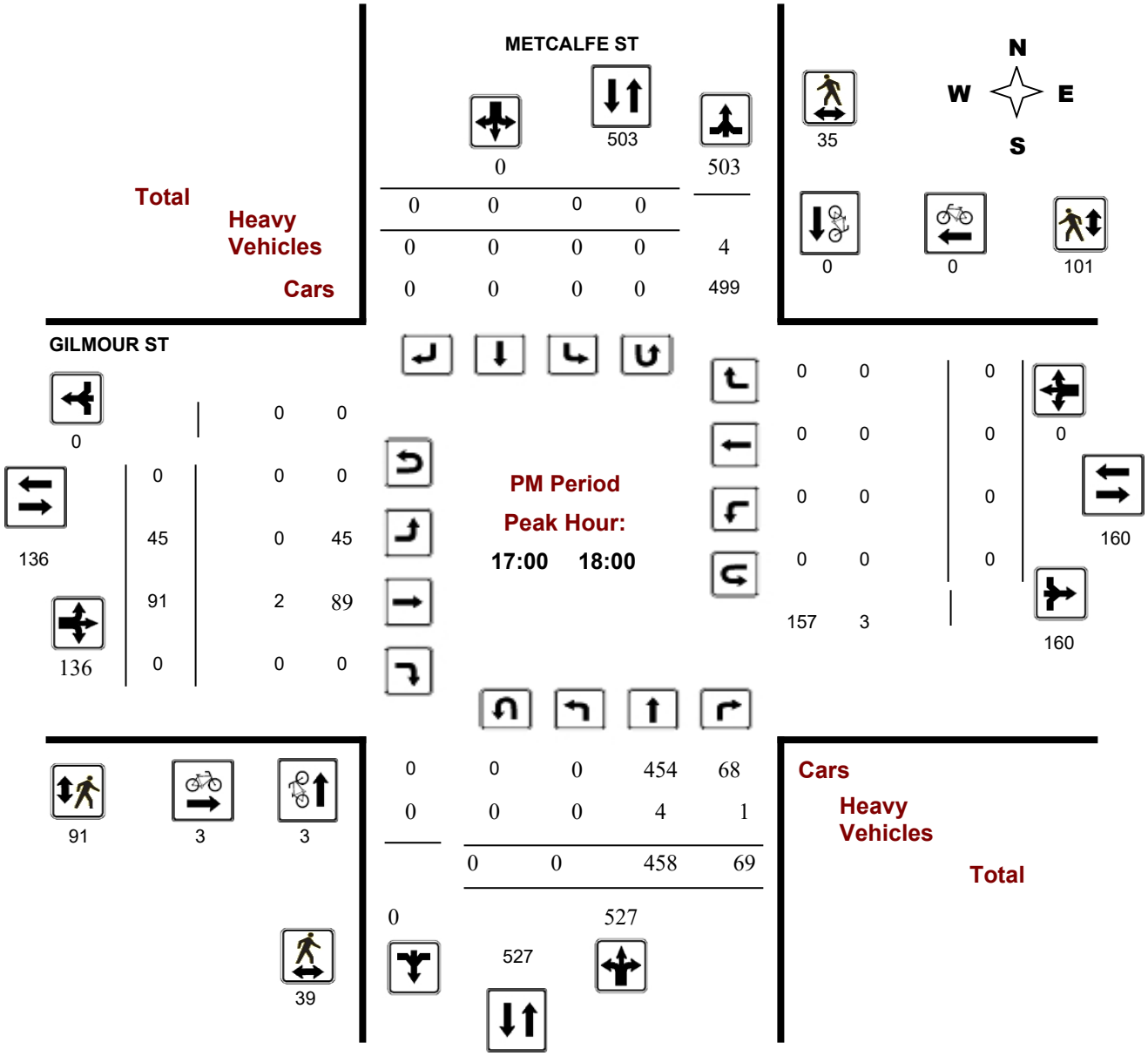
Transportation Services - Traffic Services

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

APPENDIX E

Collision Records

City Operations - Transportation Services

Collision Details Report - Public Version

From: January 1, 2013 **To:** December 31, 2017

Location: BANK ST @ GILMOUR ST

Traffic Control: Traffic signal **Total Collisions:** 9

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2013-Aug-21, Wed,16:22	Clear	Angle	Non-fatal injury	Dry	West	Going ahead	Bicycle	Other motor vehicle	
					North	Turning right	Automobile, station wagon	Cyclist	
2013-Dec-09, Mon,10:20	Snow	Rear end	P.D. only	Loose snow	North	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2013-Feb-10, Sun,04:15	Clear	Turning movement	P.D. only	Slush	South	Overtaking	Automobile, station wagon	Other motor vehicle	
					South	Turning left	Automobile, station wagon	Other motor vehicle	
2014-Jan-29, Wed,14:19	Clear	Rear end	P.D. only	Wet	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Turning right	Pick-up truck	Other motor vehicle	
2014-Apr-01, Tue,00:38	Clear	Other	P.D. only	Dry	South	Reversing	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2015-Jul-17, Fri,14:13	Clear	Rear end	Non-fatal injury	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

					South	Stopped	Pick-up truck	Other motor vehicle
2015-Nov-27, Fri,00:50	Clear	Rear end	P.D. only	Dry	North	Going ahead	Pick-up truck	Other motor vehicle
					North	Stopped	Automobile, station wagon	Other motor vehicle
2015-Dec-02, Wed,03:00	Clear	Sideswipe	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2016-Jun-03, Fri,18:00	Clear	Turning movement	Non-fatal injury	Dry	North	Turning right	Unknown	Cyclist
					North	Stopped	Bicycle	Other motor vehicle

Location: BANK ST btwn MACLAREN ST & GILMOUR ST

Traffic Control: No control

Total Collisions: 7

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2014-May-22, Thu,23:21	Clear	Sideswipe	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Automobile, station wagon	Other motor vehicle	
2014-Jul-27, Sun,16:00	Clear	Approaching	Non-fatal injury	Dry	North	Going ahead	Pick-up truck	Other motor vehicle	
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Curb	
2014-Aug-15, Fri,18:25	Rain	Rear end	Non-fatal injury	Wet	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

					South	Stopped	Automobile, station wagon	Other motor vehicle
2015-May-16, Sat,08:10	Clear	SMV unattended vehicle	P.D. only	Dry	East	Reversing	Delivery van	Unattended vehicle
2016-Sep-12, Mon,00:35	Clear	SMV unattended vehicle	P.D. only	Dry	South	Going ahead	Pick-up truck	Unattended vehicle
2017-Mar-26, Sun,03:04	Clear	Sideswipe	P.D. only	Dry	South	Going ahead	Automobile, station wagon	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle
2017-May-05, Fri,00:00	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle

Location: GILMOUR ST @ O'CONNOR ST

Traffic Control: Traffic signal **Total Collisions:** 9

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2013-Feb-05, Tue,09:29	Clear	Turning movement	P.D. only	Wet	South	Turning left	Delivery van	Other motor vehicle	
					South	Going ahead	Delivery van	Other motor vehicle	
2014-Feb-05, Wed,17:23	Clear	Sideswipe	Non-fatal injury	Slush	South	Changing lanes	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Jan-02, Fri,09:07	Clear	Angle	P.D. only	Dry	West	Going ahead	Pick-up truck	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	

2015-Dec-14, Mon,15:53	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					South	Stopped	Pick-up truck	Other motor vehicle	
2016-Jun-24, Fri,12:34	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	
2016-Sep-19, Mon,12:01	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Mar-01, Wed,11:30	Rain	SMV other	Non-fatal injury	Wet	East	Turning right	Unknown	Pedestrian	1
2017-Aug-21, Mon,00:00	Clear	SMV unattended vehicle	P.D. only	Dry	Unknown	Unknown	Unknown	Unattended vehicle	
2017-Oct-20, Fri,22:01	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Automobile, station wagon	Other motor vehicle	
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle	

Location: METCALFE ST @ GILMOUR ST

Traffic Control: Traffic signal **Total Collisions:** 6

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2013-Jan-30, Wed,13:20	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Police vehicle	Other motor vehicle	

2014-Sep-27, Sat,04:21	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	
2014-Oct-25, Sat,12:49	Clear	Turning movement	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle	
					North	Going ahead	Pick-up truck	Other motor vehicle	
2015-Apr-30, Thu,14:53	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Pick-up truck	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2016-May-04, Wed,13:59	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2017-Nov-07, Tue,12:08	Clear	Sideswipe	P.D. only	Dry	North	Changing lanes	Passenger van	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: O'CONNOR ST btwn MACLAREN ST & GILMOUR ST

Traffic Control: No control

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2015-Mar-30, Mon,17:46	Clear	Turning movement	P.D. only	Dry	South	Turning left	Passenger van	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	
2017-Aug-15, Tue,11:20	Clear	SMV other	Non-fatal injury	Dry	South	Going ahead	Pick-up truck	Pedestrian	1

2017-Oct-10, Tue,10:20	Clear	SMV unattended vehicle	P.D. only	Dry	West	Reversing	Automobile, station wagon	Unattended vehicle
2017-Nov-08, Wed,18:32	Clear	Sideswipe	P.D. only	Dry	South	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle

APPENDIX F

Relevant Excerpts from Other Transportation Studies

These 'new' trips were then distributed based on the site's connectivity to the existing road network and our knowledge of the surrounding area. The resultant distribution is assumed to be:

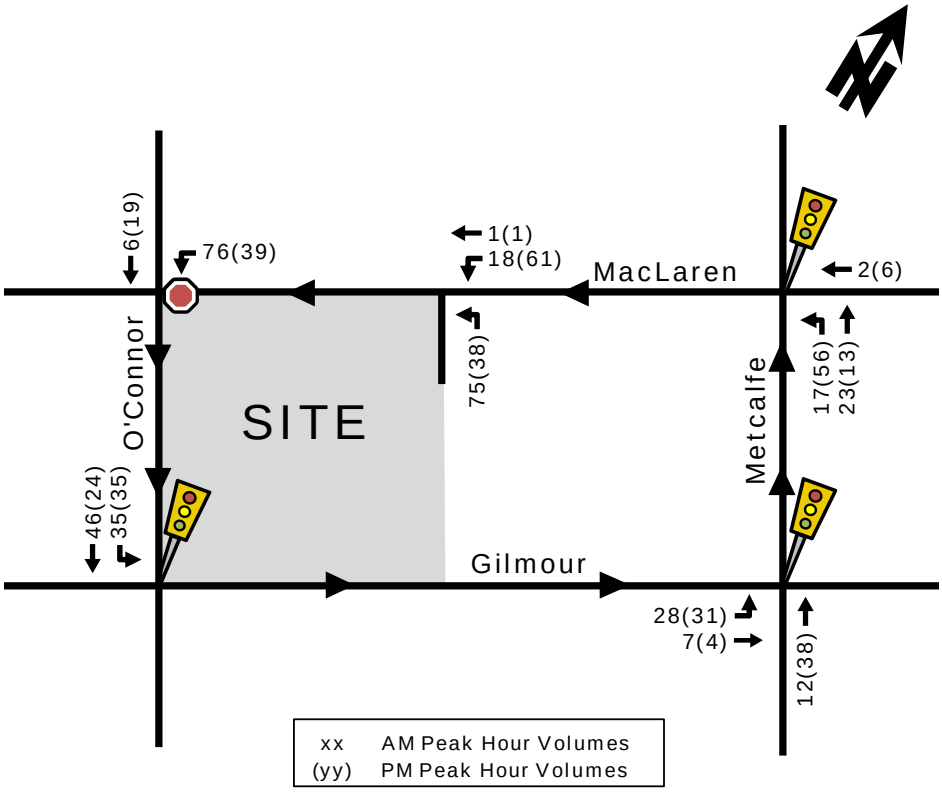
- 60% to/from the south via O'Connor Street and Metcalfe Street;
- 30% to/from the north via O'Connor Street and Metcalfe Street; and
- 10% to/from the west via Gilmour Street and MacLaren Street.

100%

Given the proposed development is located approximate 800 m (approximately 10 minute walking distance) from the center of Ottawa's Downtown Central Business District area, it is reasonable to assume the majority of site-generated trips to/from the north will be non-motorized person trips. Therefore, with respect to vehicle site-generated trips, the majority will be to/from the south, towards the HWY 417.

Based on the assumed distributions, 'new' and 'pass-by' site-generated trips were assigned to study area intersections and are illustrated as Figure 5. It should be noted that no on-site commercial parking is proposed for the subject development. Therefore, only residential site-generated trips were assigned to the proposed site driveway connection to MacLaren Avenue and retail site-generated trips were assigned to on-street parking. This is reflected in Figure 5.

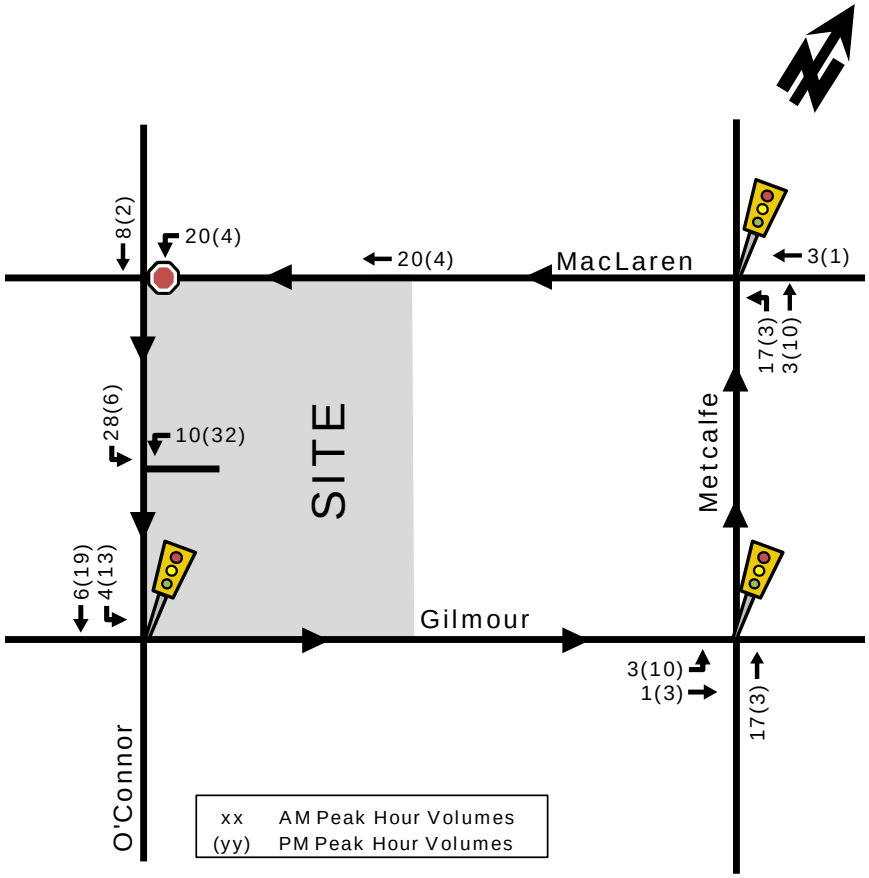
Figure 5: 'New' and 'Pass-by' Site-Generated Traffic Volumes



Given the proposed site is currently occupied by an approximate 50,000 ft^2 office building and a pay/display parking lot, which will be replaced by the proposed development, peak hour traffic counts were conducted at the existing site driveway connection to O'Connor Street to obtain existing peak hour site-generated trips. Assuming the same traffic distribution as the 'new' site-generated trips, the observed office/parking lot site-generated trips were removed from the study area network to obtain a 'net' increase in total projected peak hour traffic volumes. Existing office/parking lot site-generated traffic is illustrated as Figure 6 and it equates to 38 veh/h two-way total during both the morning and afternoon peak hours.

Removing the office/parking lot site-generated traffic, the projected 'net' increase in study area traffic is approximately 58 and 66 veh/h during the weekday morning and afternoon peak hours, respectively. This amount of 'new' traffic equates to approximately 1 new vehicle every minute.

Figure 6: Existing Site-Generated Traffic Volumes



APPENDIX G

TDM Checklist

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

Legend

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

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	1.	**WALKING & CYCLING: ROUTES**	
	1.1	**Building location & access points**	
BASIC	1.1.1	Locate building close to the street, and do not locate parking areas between the street and building entrances	✓
BASIC	1.1.2	Locate building entrances in order to minimize walking distances to sidewalks and transit stops/stations	✓
BASIC	1.1.3	Locate building doors and windows to ensure visibility of pedestrians from the building, for their security and comfort	✓
	1.2	**Facilities for walking & cycling**	
REQUIRED	1.2.1	Provide convenient, direct access to stations or major stops along rapid transit routes within 600 metres; minimize walking distances from buildings to rapid transit; provide pedestrian-friendly, weather-protected (where possible) environment between rapid transit accesses and building entrances; ensure quality linkages from sidewalks through building entrances to integrated stops/stations *(see Official Plan policy 4.3.3)*	☐ N/A - no rapid transit within 600m
REQUIRED	1.2.2	Provide safe, direct and attractive pedestrian access from public sidewalks to building entrances through such measures as: reducing distances between public sidewalks and major building entrances; providing walkways from public streets to major building entrances; within a site, providing walkways along the front of adjoining buildings, between adjacent buildings, and connecting areas where people may congregate, such as courtyards and transit stops; and providing weather protection through canopies, colonnades, and other design elements wherever possible *(see Official Plan policy 4.3.12)*	✓

		TDM-supportive design & infrastructure measures: *Residential developments*	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 *(see Official Plan policy 4.3.10)*	☑
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 *(see Official Plan policy 4.3.10)*	☑
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 *(see Official Plan policy 4.3.11)*	☑
BASIC	1.2.6	Provide safe, direct and attractive walking routes from building entrances to nearby transit stops	☑
BASIC	1.2.7	Ensure that walking routes to transit stops are secure, visible, lighted, shaded and wind-protected wherever possible	☑
BASIC	1.2.8	Design roads used for access or circulation by cyclists using a target operating speed of no more than 30 km/h, or provide a separated cycling facility	☐
	1.3	**Amenities for walking & cycling**	
BASIC	1.3.1	Provide lighting, landscaping and benches along walking and cycling routes between building entrances and streets, sidewalks and trails	☐
BASIC	1.3.2	Provide wayfinding signage for site access (where required, e.g. when multiple buildings or entrances exist) and egress (where warranted, such as when directions to reach transit stops/stations, trails or other common destinations are not obvious)	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☑
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 *(see Zoning By-law Section 111)*	☑
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 *(see Zoning By-law Section 111)*	☑
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	☐
	2.2	**Secure bicycle parking**	
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 *(see Zoning By-law Section 111)*	☑
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☐
	2.3	**Bicycle repair station**	
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)	☐
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses *(see Zoning By-law Section 94)*	☐
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☑
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	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)	☐

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

Legend

BASIC — The measure is generally feasible and effective, and in most cases would benefit the development and its users

BETTER — The measure could maximize support for users of sustainable modes, and optimize development performance

★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

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

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

			TDM measures: *Residential developments*	Check if proposed & add descriptions
		6.	**TDM MARKETING & COMMUNICATIONS**	
		6.1	**Multimodal travel information**	
BASIC	★	6.1.1	Provide a multimodal travel option information package to new residents	☐
		6.2	**Personalized trip planning**	
BETTER	★	6.2.1	Offer personalized trip planning to new residents	☐