

Residential Development
175 Richmond Road
Transportation Impact Assessment
Scoping Report

Prepared By:

NOVATECH
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario
K2M 1P6

Dated: April 2, 2019
Revised: July 10, 2020

Novatech File: 111130
Ref: 2020-092

July 10, 2020

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: Residential Development, 175 Richmond Road
Revised Transportation Impact Assessment Scoping Report
Novatech File No. 111130

We are pleased to submit the following Revised Transportation Impact Assessment (TIA) Scoping report in support of a Zoning By-law Amendment Application 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).

A TIA Scoping report was submitted to the City of Ottawa in April 2019 in support of a Zoning By-Law Amendment Application. This revised TIA Scoping report has been prepared to reflect revisions to the Site Plan and respond to comments received from the City in April 2019.

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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1.0 INTRODUCTION

This Transportation Impact Assessment (TIA) Scoping report has been prepared in support of a Zoning By-law Amendment application for 175 Richmond Road.

The subject site is surrounded by the following:

- Wilber Avenue and residential dwellings to the north;
- Kirkwood Avenue and the Canadian Bank Note Company to the east;
- Residential dwellings and Clifton Road to the west; and
- Richmond Road and the Real Canadian Superstore to the south.

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

Figure 1: View of the Subject Site



The subject site is currently occupied by a one to two storey building which contains specialty retail uses such as a travel agency, hair salon, dance academy, yoga studio, paint store, electrical equipment wholesaler, and sign shop as well as an engineering office at the north end of the site. The site currently has an access onto Richmond Road and has five loading bays on Wilber Avenue. Access on Wilber Street is poorly defined as there is no curb line and no differentiation between the asphalt loading area and the paved roadway.

A Transportation Brief was written by Novatech in September 2011 in support of a residential development on the subject property. The proposal included 239 residential condo/townhouse units and 6,620 ft² of specialty retail.

The report layout will follow the City of Ottawa Transportation Impact Assessment Guidelines (June 2017). The required sections of the TIA report that have already been addressed and remain unchanged with the development proposed will reference the 2011 Transportation Brief.

2.0 PROPOSED DEVELOPMENT

The proposed development consists of a 6-storey residential building (123 units) on the north portion of the subject property and a 9-storey mixed-use building (104 residential units and 7,525 square feet of retail) on the south portion fronting Richmond Road. A total of 253 vehicular parking spaces on three levels of underground parking are proposed via a full movement access on Kirkwood Avenue.

The development is anticipated to be completed in one phase, with full build out by 2025.

The subject site is currently zoned General Industrial. A Zoning By-law Amendment is required to permit the residential use.

A copy of the concept 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.

The trigger results are as follows:

- Trip Generation Trigger – the net difference in traffic between the existing development and the proposed development is anticipated to marginally exceed the trip generation trigger of 60 person trips during the peak hour.
- Location Trigger – the development in a Design Priority Area (Richmond Traditional Mainstreet) and a Transit Oriented Development (TOD) Zone; further assessment is required based on this trigger.
- Safety Trigger – a new access to the development is within the area of influence of an adjacent traffic signal at Richmond Road/Kirkwood Avenue; further assessment is required based on this trigger.

Based on the foregoing, the proposed development satisfies the trip generation, location and safety triggers for completing a TIA. However, City staff have confirmed that the TIA will only be required to address Modules 4.1 to 4.5 of the 2017 TIA Guidelines.

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

4.0 SCOPING

4.1 Existing Conditions

As identified above, a Transportation Brief was written by Novatech in September 2011 in support of a residential development on the subject property. A review of existing conditions was provided in Section 2 of the Transportation Brief. The following were reviewed:

- Roadways
- Intersections
- Transit Facilities
- Bicycle Facilities
- Pedestrian Facilities
- Existing Traffic Volumes

As such, sections of the 2011 Transportation Brief have been used in the following sections of this TIA report, with any new changes to the existing conditions updated.

4.1.1 Roadways

Wilber Street is an east-west local roadway extending between Clifton Road and Kirkwood Avenue. It has a rural two-lane cross section and a regulatory speed limit of 50km/h.

Richmond Road is an east-west arterial extending between Robertson Road and Island Park Drive. It is designated as a truck route. Within the study area Richmond Road has a four-lane cross section with a posted speed of 50km/h. Ninety-minute on-street parking is permitted from 7AM to 7PM on the south side of Richmond Road, and on the north side west of Kirkwood Avenue. East of Kirkwood Avenue, ninety-minute on-street parking is permitted on the north side from 7AM to 3:30PM with no stopping between 3:30PM and 5:30PM.

Kirkwood Avenue is a north-south arterial extending between Merivale Road and Richmond Road. Kirkwood Avenue continues north of Richmond Road as a local roadway and terminates at Wilber Street. Within the study area, Kirkwood Avenue has a two-lane cross section with a posted speed of 50km/h. North of Richmond Road, on street parallel parking is permitted on the west side of Kirkwood Avenue for a distance of approximately 25m. North of this, perpendicular parking is provided for patrons and employees of the existing stores and office. A total of 29 angled parking spaces allowing 3-hour parking between 7AM to 7PM are painted along the east side of Kirkwood Avenue immediately north of Richmond Road. Kirkwood Avenue is designated as a truck route with restricted loads from Richmond Road to Carling Avenue, and a truck route with full loads south of Carling Avenue. Traffic calming measures have been implemented along Kirkwood Avenue, as described in Section 4.1.6.

4.1.2 Intersections

The Richmond Road/Kirkwood Avenue intersection operates under traffic signal control; a designated left-turn lane is provided on the south approach. Pedestrian priority markings are provided at the crosswalks on the west and south legs.

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.

- Wilber Avenue, north side: one driveway to a residential dwelling at 185 Wilber Avenue
- Wilber Avenue, south side: one driveway to a residential dwelling at 188 Wilber Avenue. East of this driveway, Wilber Avenue has no defined curb line and no differentiation between the asphalt loading area and the paved roadway
- Kirkwood Avenue, east side (north of Richmond Road): one driveway with a gated access to the Canadian Bank Note Company
- Kirkwood Avenue, east side (south of Richmond Road): four driveways to residential dwellings at 164 Richmond Road, 168 Lyman Street, 167 Mulvihill Avenue, and 421 Kirkwood Avenue.
- Kirkwood Avenue, west side (south of Richmond Road): one access to the development at 400 Kirkwood Avenue (Real Canadian Superstore)
- Richmond Road, north side (east of Kirkwood Avenue): one gated driveway to a parking lot at 145 Richmond Road
- Richmond Road, south side (east of Kirkwood Avenue): two driveways to businesses at 146, 148, and 150 Richmond Road
- Richmond Road, north side (west of Kirkwood Avenue): three driveways to businesses at 177, 199 and 205 Richmond Road
- Richmond Road, south side (west of Kirkwood Avenue): one access to the development at 400 Kirkwood Avenue and 222 Richmond Road (Real Canadian Superstore and LCBO)

4.1.4 Pedestrian and Cycling Facilities

Richmond Road is designated as a Spine Route in the City's Ultimate Cycling Network. Kirkwood Avenue and Wilber Avenue are classified as Local Routes.

Within the study area, sidewalks are provided on both sides of Richmond Road and on both sides of Kirkwood Avenue (south of Richmond Road). A pathway is provided at the northern terminus of Kirkwood Avenue, providing connectivity to Scott Street and to the West Village subdivision.

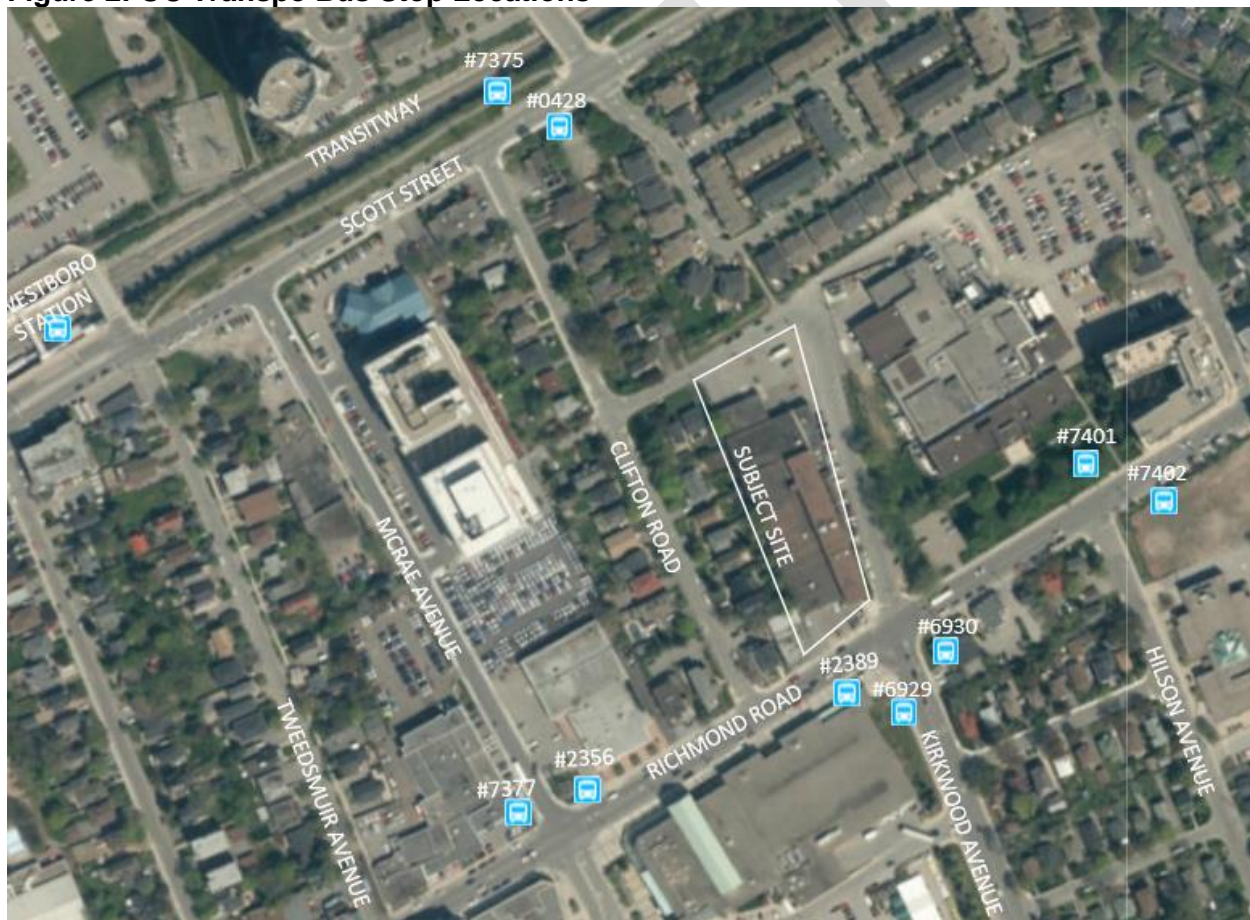
4.1.5 Transit

Bus Rapid Transit (BRT) is available approximately 590 meters from the site at Westboro Transit Station, located on the north side of Scott Street (west of Tweedsmuir Avenue). OC Transpo routes 50, 61, 62, 63, 64, 66, 81, 87, 91, 94, 95, 97, 153, 164, 282, and 403 currently stop at Westboro Transit Station. Phase 2 of the Light Rail Transit (LRT) project is anticipated to be completed by 2023. The Westboro Transit Station will become the Westboro LRT Station once Phase 2 is complete, as discussed further in Section 4.2.

OC Transpo bus stop #2389 is located on the southwest corner of Richmond/Kirkwood and provides service to routes 11, 81 and 153. Stop #2356 is located on the northeast corner of the Richmond Road/McRae Avenue intersection and provides service to routes 11, 81, and 153. Stop #7377 is located on the northwest corner of the Richmond Road/McRae Avenue intersection and provides service to routes 81 and 153. Stops #7401 and #7402 are located approximately 20 meters east of Hilson Avenue on either side of Richmond Road and provide service to routes 11, 16, and 153. Stops #6929 and #6930 are located on the southeast and southwest corners of the Richmond Road/Kirkwood Avenue intersection and provide service to route 16. Stops #0428 and #7375 are located just east of Clifton Road, on either side of Scott Street and provide service to route 50.

These bus stop locations are shown in **Figure 2**.

Figure 2: OC Transpo Bus Stop Locations



OC Transpo Route 11 travels from Lincoln Fields Transit Station to Mackenzie King Transit Station. It operates seven days a week, with all day service. OC Transpo Route 81 travels from Tunney's Pasture Transit Station to Clyde Avenue. It operates Monday to Saturday, with no service Saturday evening or all-day Sunday. OC Transpo Route 16 travels from Main Street to Britannia Park. It operates seven days a week, with all day service. OC Transpo Route 153 travels from Lincoln Fields Transit Station to Bayshore Transit Station. It operates seven days a week, with service in selected time periods only. OC Transpo Route 50 travels from Tunney's Pasture

Transit Station to Lincoln Fields Transit Station. It operates Monday to Saturday, with no service Saturday evening or all-day Sunday.

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

4.1.6 Existing Area Traffic Management Measures

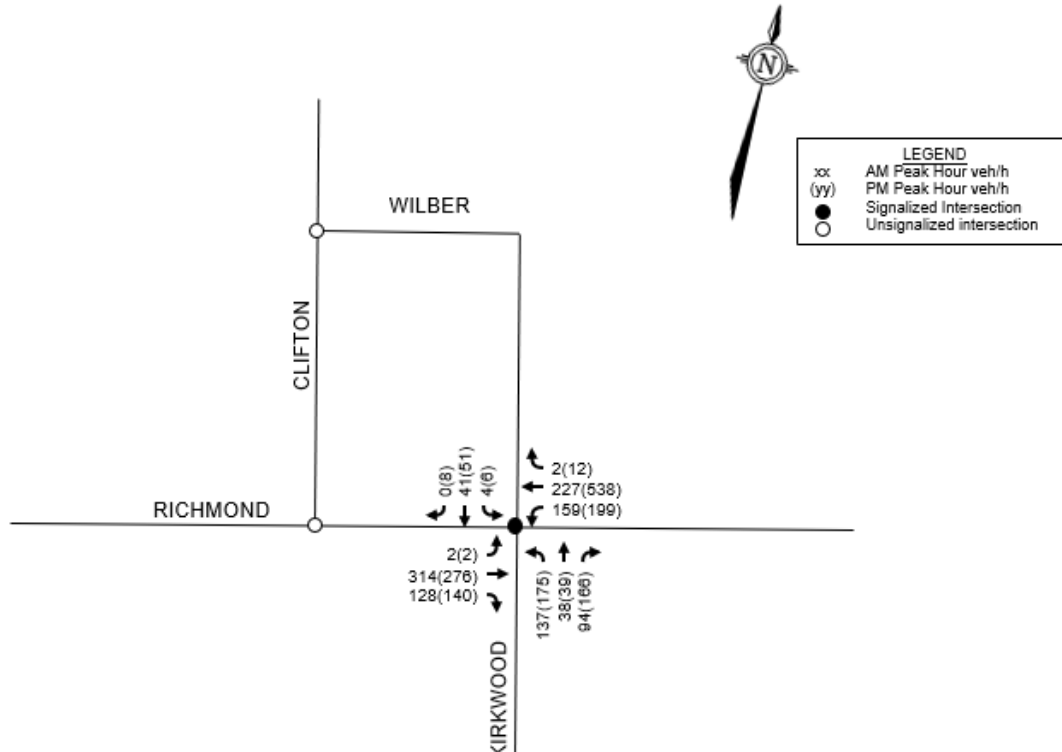
Traffic calming measures have been implemented along Kirkwood Avenue (from Carling Avenue to Richmond Road) including mid-block and intersection narrowings, as well as mid-block speed humps. These measures were implemented per the recommendations of the 1996 *Island Park, Kirkwood and Churchill Avenue Area Transportation Assessment and Traffic Calming Plan*. The report identified Kirkwood Avenue as having excessive traffic volumes that impacted the quality of life of the residents. Issued addressed by the traffic calming measures included cut through traffic and speeding.

4.1.7 Existing Traffic Volumes

A traffic count was obtained from the City of Ottawa at the Richmond Road/Kirkwood Avenue intersection to determine the existing pedestrian, cyclist and vehicular traffic volumes. The traffic count was completed on April 20th, 2017 (Thursday).

Existing traffic volumes along the study area roadways are shown in **Figure 3**. Peak hour summary sheets of the above traffic count are included in **Appendix D**.

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. Copies of the collision summary reports are included in **Appendix E**.

The collision data has been evaluated to determine if there are any identifiable collision patterns. The following summarizes the number of reported collisions from January 1, 2013 to December 31, 2017.

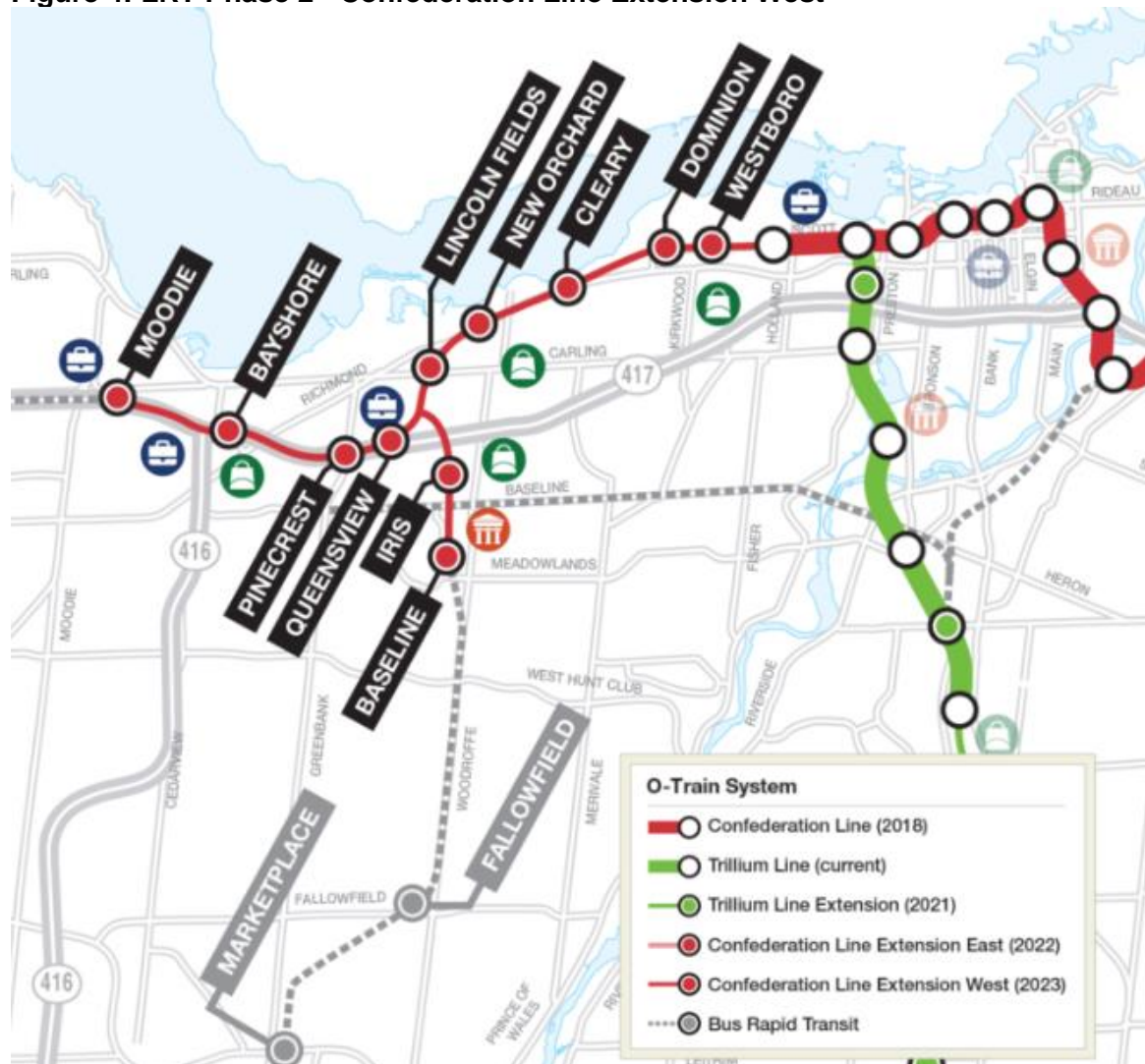
A total of twenty-four collisions were reported at the Richmond Road/Kirkwood Avenue intersection over the last five years. Of these, there were seven rear end impacts, six turning movement impacts, five sideswipe impacts, three angle impacts, and two 'other' impacts. One collision involved a pedestrian. Of the total twenty-four collisions, two occurred in snowy conditions, four occurred in rainy conditions, and eighteen occurred in clear conditions. Four collisions caused injuries, but none cause fatalities.

Of the seven rear end impacts, four occurred on the westbound approach, two on the northbound approach, and one on the southbound approach. Of the six turning movement impacts, three involved eastbound municipal transit buses. Of the five sideswipe impacts, three occurred on the eastbound approach and two on the westbound approach.

4.2 Planned Conditions

Phase 2 of the LRT construction, which will extend the LRT further east, west and south is under construction. The Confederation Line Extension West is anticipated to be completed by 2023 and the Westboro Transit Station will open as the Westboro LRT Station. The proposed western Confederation Line extension is shown in **Figure 3**. During the LRT Phase 2 construction, buses will be routed off the existing Transitway and onto Scott Street.

Figure 4: LRT Phase 2 - Confederation Line Extension West



Other area development includes:

- A mixed-use development is proposed at 320 McRae Avenue, 1976 Scott Street and 315 Tweedsmuir. This development proposes 297 residential units and 14,440 square feet of retail land uses. A Community Transportation Study (CTS) was published in 2015, with two addendums in 2016 and 2017 in support of this redevelopment. The original date of full occupancy as stated in the CTS was 2017, but the development is not yet constructed.
- A mixed-used development is proposed at 1960 Scott Street. This development proposes 251 residential units and 9,850 square feet of retail. A Transportation Brief was written in 2016, with an Addendum in 2017, in support of this development. The development is currently being constructed at the time of writing this TIA.
- The residential development at 1950 Scott Street. This development proposes 141 condominium/apartment units. A TIA Strategy Report was written in 2018 in support of this development. The date of full occupancy is 2020.

- The residential development at 1946 Scott Street. This development proposes a 12-storey building with approximately 60 apartment units. A Screening and Scoping Report was prepared in 2017 in support of this development. The estimated date of full occupancy was 2019.
- The residential development at 190 Richmond Road. Two residential apartment buildings providing 187 units are proposed in the southeast corner of the existing development on 190 Richmond Road. A Transportation Overview was written in 2016 and updated in 2017 in support of this development.
- The mixed-use redevelopment at 114 Richmond Road. This development proposes 280 senior adult housing units, 428 high-rise condominium units, 51,000 square feet of office space, a 1,500 square foot coffee shop, and 13,500 square feet of specialty retail. A Community Transportation and Traffic Impact Study was written in 2010 in support of this development. Currently, the site is partially built out with the building fronting Richmond Road having been constructed.

4.3 Study Area and Time Periods

The study area intersections will include the Richmond Road/Kirkwood Avenue intersection and the site access. A boundary street review will be conducted for Richmond Road, Kirkwood Avenue and Wilber Street.

The time periods chosen for analysis are the weekday AM and PM peak hours. Analysis will be performed for the build out year and a 5-year horizon.

4.4 Exemptions Review

This module reviews possible exemptions from the final TIA, as outlined in the TIA Guidelines. The applicable exemptions for this site are shown in **Table 1**.

As confirmed with City staff, the Network Impact Component (Modules 4.5 to 4.9) of the TIA analysis is exempt from further review.

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

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

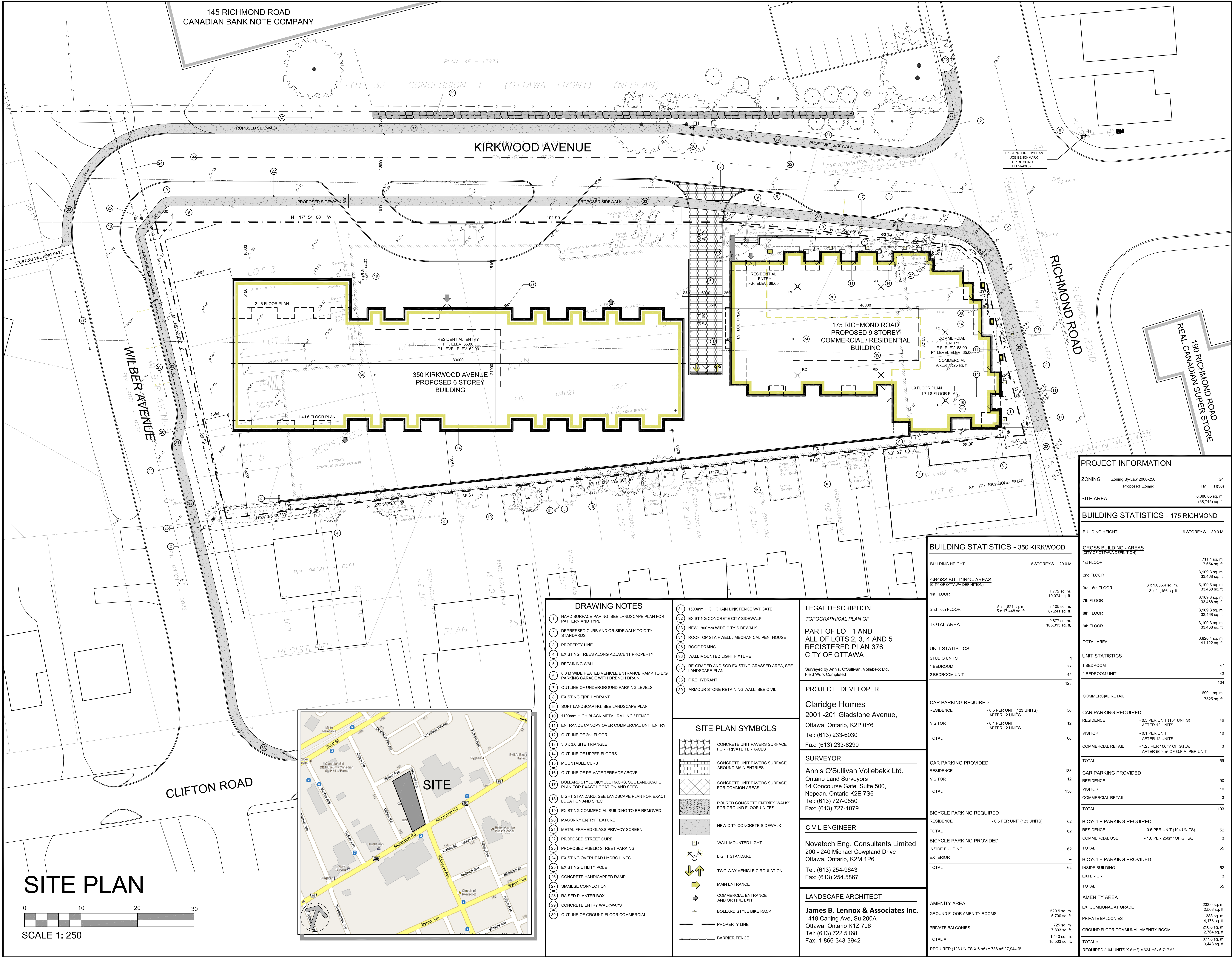
Table 1: TIA Exemptions

Module	Element	Exemption Criteria	Exemption Applies
Design Review Component			
4.1 Development Design	4.1.2 Circulation and Access	<ul style="list-style-type: none"> Only required for site plans 	Not Exempt
	4.1.3 New Street Networks	<ul style="list-style-type: none"> Only required for plans of subdivision 	Exempt
4.2 Parking	4.2.1 Parking Supply	<ul style="list-style-type: none"> Only required for site plans 	Not Exempt
	4.2.2 Spillover Parking	<ul style="list-style-type: none"> Only required for site plans where parking supply is 15% below unconstrained demand 	Exempt

City staff have confirmed that the TIA Scoping report is sufficient for the Zoning application and the remaining steps of the TIA process can be completed at the Site Plan stage.

APPENDIX A

Concept Plan



SITE PLAN



SCALE 1: 250



DRAWING NOTES

- 1 HARD SURFACE PAVING, SEE LANDSCAPE PLAN FOR PATTERN AND TYPE
- 2 DEPRESSED CURB AND SIDEWALK TO CITY STANDARDS
- 3 PROPERTY LINE
- 4 EXISTING TREES ALONG ADJACENT PROPERTY
- 5 RETAINING WALL
- 6 6.0 M WIDE HEATED VEHICLE ENTRANCE RAMP TO U/G PARKING GARAGE WITH DRENCH DRAIN
- 7 OUTLINE OF UNDERGROUND PARKING LEVELS
- 8 EXISTING FIRE HYDRANT
- 9 SOFT LANDSCAPING, SEE LANDSCAPE PLAN
- 10 1100mm HIGH BLACK METAL RAILING / FENCE
- 11 ENTRANCE CANOPY OVER COMMERCIAL UNIT ENTRY
- 12 OUTLINE OF 2nd FLOOR
- 13 3.0 x 3.0 SITE TRIANGLE
- 14 OUTLINE OF UPPER FLOORS
- 15 MOUNTABLE CURB
- 16 OUTLINE OF PRIVATE TERRACE ABOVE
- 17 BOLLARD STYLE BICYCLE RACKS, SEE LANDSCAPE PLAN FOR EXACT LOCATION AND SPEC
- 18 LIGHT STANDARD, SEE LANDSCAPE PLAN FOR EXACT LOCATION AND SPEC
- 19 EXISTING COMMERCIAL BUILDING TO BE REMOVED
- 20 MASONRY ENTRY FEATURE
- 21 METAL FRAMED GLASS PRIVACY SCREEN
- 22 PROPOSED STREET CURB
- 23 PROPOSED PUBLIC STREET PARKING
- 24 EXISTING OVERHEAD HYDRO LINES
- 25 EXISTING UTILITY POLE
- 26 CONCRETE HANDICAPPED RAMP
- 27 SIAMSE CONNECTION
- 28 RAISED PLANTER BOX
- 29 CONCRETE ENTRY WALKWAYS
- 30 OUTLINE OF GROUND FLOOR COMMERCIAL

SITE PLAN SYMBOLS

- CONCRETE UNIT PAVERS SURFACE FOR PRIVATE TERRACES
- CONCRETE UNIT PAVERS SURFACE AROUND MAIN ENTRIES
- CONCRETE UNIT PAVERS SURFACE FOR COMMON AREAS
- POURED CONCRETE ENTRIES WALKS FOR GROUND FLOOR UNITS
- NEW CITY CONCRETE SIDEWALK
- WALL MOUNTED LIGHT
- LIGHT STANDARD
- TWO WAY VEHICLE CIRCULATION
- MAIN ENTRANCE
- COMMERCIAL ENTRANCE AND OR FIRE EXIT
- BOLLARD STYLE BIKE RACK
- PROPERTY LINE
- BARRIER FENCE

LEGAL DESCRIPTION

TOPOGRAPHICAL PLAN OF
PART OF LOT 1 AND
ALL OF LOTS 2, 3, 4 AND 5
REGISTERED PLAN 376
CITY OF OTTAWA

Surveyed by Anns, O'Sullivan, Vollebakk Ltd.
Field Work Completed

PROJECT DEVELOPER

Claridge Homes
2001 -201 Gladstone Avenue,
Ottawa, Ontario, K2P 0Y6
Tel: (613) 233-6030
Fax: (613) 233-8290

SURVEYOR

Annis O'Sullivan Vollebakk Ltd.
Ontario Land Surveyors
14 Concourse Gate, Suite 500,
Nepean, Ontario K2E 7S6
Tel: (613) 727-0850
Fax: (613) 727-1079

CIVIL ENGINEER

Novatech Eng. Consultants Limited
200 - 240 Michael Cowpland Drive
Ottawa, Ontario, K2M 1P6
Tel: (613) 254-9643
Fax: (613) 254-5867

LANDSCAPE ARCHITECT

James B. Lennox & Associates Inc.
1419 Carling Ave. Su 200A
Ottawa, Ontario K1Z 7L6
Tel: (613) 722-5168
Fax: 1-866-343-3942

BUILDING STATISTICS - 350 KIRKWOOD

BUILDING HEIGHT	6 STOREYS	20.0 M
GROSS BUILDING - AREAS (CITY OF OTTAWA DEFINITION)		
1st FLOOR	1,772 sq. m. 19,074 sq. ft.	
2nd - 6th FLOOR	5 x 1,621 sq. m. 5 x 17,448 sq. ft.	8,105 sq. m. 87,241 sq. ft.
TOTAL AREA		9,877 sq. m. 106,315 sq. ft.

UNIT STATISTICS

STUDIO UNITS	1
1 BEDROOM	77
2 BEDROOM UNIT	45
TOTAL	123

CAR PARKING REQUIRED

RESIDENCE	- 0.5 PER UNIT (123 UNITS)	56
VISITOR	- 0.1 PER UNIT AFTER 12 UNITS	12
TOTAL		68

CAR PARKING PROVIDED

RESIDENCE	138
VISITOR	12
TOTAL	150

BICYCLE PARKING REQUIRED

RESIDENCE	- 0.5 PER UNIT (123 UNITS)	62
TOTAL		62

BICYCLE PARKING PROVIDED

INSIDE BUILDING	62
EXTERIOR	-
TOTAL	62

AMENITY AREA

GROUND FLOOR AMENITY ROOMS	528.5 sq. m. 5,700 sq. ft.
PRIVATE BALCONIES	725 sq. m. 7,803 sq. ft.
TOTAL =	1,440 sq. m. 15,503 sq. ft.
REQUIRED (123 UNITS X 6 m ²) = 738 m ² / 7,944 ft ²	

PROJECT INFORMATION

ZONING	Zoning By-Law 2008-250 Proposed Zoning	IG1 TM, H(30)
SITE AREA		6,386.65 sq. m. (66,745) sq. ft.

BUILDING STATISTICS - 175 RICHMOND

BUILDING HEIGHT	9 STOREYS	30.0 M
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GROSS BUILDING - AREAS
(CITY OF OTTAWA DEFINITION)

1st FLOOR	711.1 sq. m. 7,654 sq. ft.
2nd FLOOR	3,109.3 sq. m. 33,468 sq. ft.
3rd - 6th FLOOR	3 x 1,036.4 sq. m. 3 x 11,156 sq. ft.
7th FLOOR	3,109.3 sq. m. 33,468 sq. ft.
8th FLOOR	3,109.3 sq. m. 33,468 sq. ft.
9th FLOOR	3,109.3 sq. m. 33,468 sq. ft.
TOTAL AREA	3,820.4 sq. m. 41,122 sq. ft.

UNIT STATISTICS

1 BEDROOM	61
2 BEDROOM UNIT	43
TOTAL	104

COMMERCIAL RETAIL

RESIDENCE	699.1 sq. m. 7,525 sq. ft.
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CAR PARKING REQUIRED

RESIDENCE	- 0.5 PER UNIT (104 UNITS)	46
VISITOR	- 0.1 PER UNIT AFTER 12 UNITS	10
COMMERCIAL RETAIL	- 1.25 PER 100m ² OF G.F.A. AFTER 500 m ² OF G.F.A. PER UNIT	3
TOTAL		59

CAR PARKING PROVIDED

RESIDENCE	90
VISITOR	10
COMMERCIAL RETAIL	3
TOTAL	103

BICYCLE PARKING REQUIRED

RESIDENCE	- 0.5 PER UNIT (104 UNITS)	52
COMMERCIAL USE	- 1.0 PER 250m ² OF G.F.A.	3
TOTAL		55

BICYCLE PARKING PROVIDED

INSIDE BUILDING	52
EXTERIOR	3
TOTAL	55

AMENITY AREA

EX. COMMUNAL AT GRADE	233.0 sq. m. 2,508 sq. ft.
PRIVATE BALCONIES	388 sq. m. 4,178 sq. ft.
GROUND FLOOR COMMUNAL AMENITY ROOM	256.8 sq. m. 2,764 sq. ft.
TOTAL =	877.8 sq. m. 9,448 sq. ft.
REQUIRED (104 UNITS X 6 m ²) = 624 m ² / 6,717 ft ²	

IT IS THE RESPONSIBILITY OF THE APPROPRIATE CONTRACTOR TO CHECK AND VERIFY ALL DIMENSIONS ON SITE AND TO REPORT ALL ERRORS AND/OR OMISSIONS TO THE ARCHITECT.
ALL CONTRACTORS MUST COMPLY WITH ALL PERTINENT CODES AND BY-LAWS.
THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION UNTIL SIGNED BY THE ARCHITECT.
DO NOT SCALE DRAWINGS.
COPYRIGHT RESERVED.

NOTATION SYMBOLS:

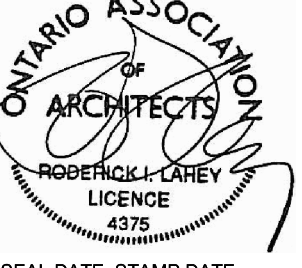
- INDICATES DRAWING NOTES, LISTED ON EACH SHEET.
- INDICATES ASSEMBLY TYPE; REFER TO TYPICAL ASSEMBLIES SCHEDULE.
- INDICATES WINDOW TYPE; REFER TO WINDOW ELEVATIONS AND DETAILS ON A300 SERIES.
- INDICATES DOOR TYPE; REFER TO DOOR SCHEDULE AND DETAILS ON A300 SERIES.
- DETAIL NUMBER
- TITLE
- DETAIL REFERENCE PAGE
- DETAIL CROSS REFERENCE PAGE

GENERAL NOTES:

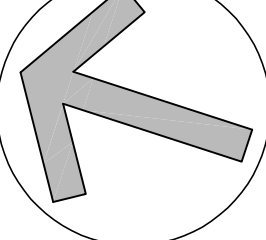
- REFER TO TYPICAL ASSEMBLIES SHEET FOR WALL, PARTITION, ROOF CEILING & FLOOR TYPES.
- FOR DOOR TYPES AND HARDWARE REQUIREMENTS REFER TO DOOR SCHEDULE ON A300 SERIES.
- ALL INTERIOR DIMENSIONS ARE TAKEN FROM THE FACE OF DRYWALL.
- ALL EXTERIOR DIMENSIONS ARE TAKEN FROM THE FACE OF CLADDING.
- ALL EXTERIOR WALLS ARE TO BE TYPE "W1" UNLESS NOTED OTHERWISE.
- ALL INTERIOR PARTITIONS ARE TO BE TYPE "P1" UNLESS NOTED OTHERWISE.

ISSUED FOR ZONING AMENDMENT	Jul 07, 20
ISSUED FOR ZONING AMENDMENT	Oct 11, 19
ISSUED FOR DESIGN REVIEW	Apr 05, 19
REVISED AS PER S.P.C. COMMENTS	Mar 22, 12
ISSUED FOR SITE PLAN CONTROL & ZONING AMENDMENT APPLICATION	Oct 12, 11
PRINTER FOR DESIGN REVIEW	Sept 8, 11
ISSUED FOR ZONING AMENDMENT	July 15, 11
No. DESCRIPTION	DATE

REVISIONS:



NORTH ARROW:



CLIENT:



ARCHITECT:



PROJECT TITLE:

175 RICHMOND ROAD

OTTAWA

ONTARIO

SHEET TITLE:

SITE PLAN

DRAWN:

RV

CHECKED:

R.L.A.

SCALE:

1:200

SHEET No.

SP-1

PROJECT No.

1108

APPENDIX B

TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	175 Richmond Road
Description of Location	West side of Kirkwood Avenue between Richmond Road and Wilber Avenue
Land Use Classification	Residential with ground floor retail
Development Size (units)	227 residential units
Development Size (m ²)	700m ² of ground floor retail
Number of Accesses and Locations	One full movement access to Kirkwood Avenue
Phase of Development	1
Buildout Year	2025

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

2. Trip Generation Trigger

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

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.

Transportation Impact Assessment Screening Form

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



11

**LINCOLN FIELDS
PARLIAMENT
PARLEMENT**

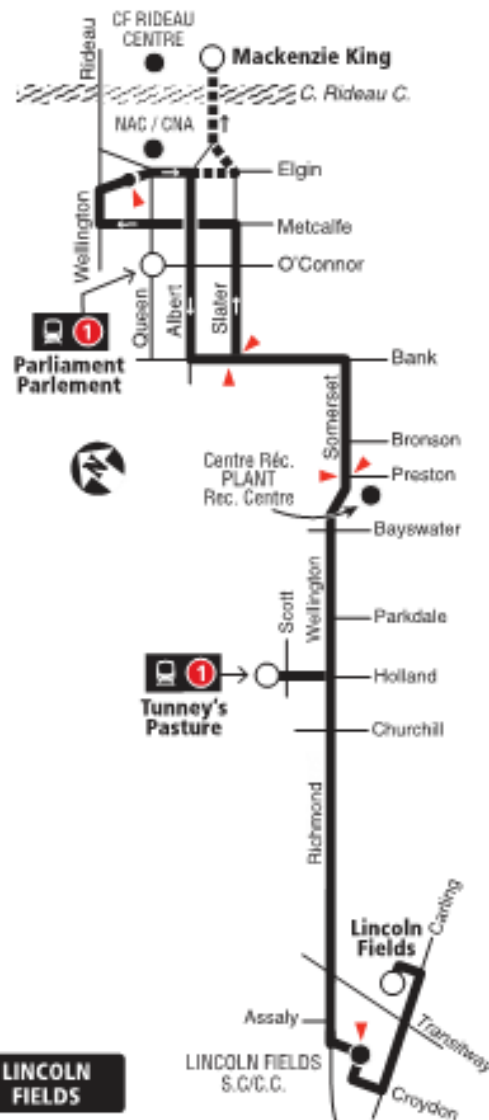
Fréquent

7 days a week / 7 jours par semaine



All day service

Service toute la journée

**PARLIAMENT
PARLEMENT**



**LINCOLN
FIELDS**

-  Transitway & Station
-  Some trips / Quelques trajets
-  Timepoint / Heures de passage

FORMER / ANCIEN 151

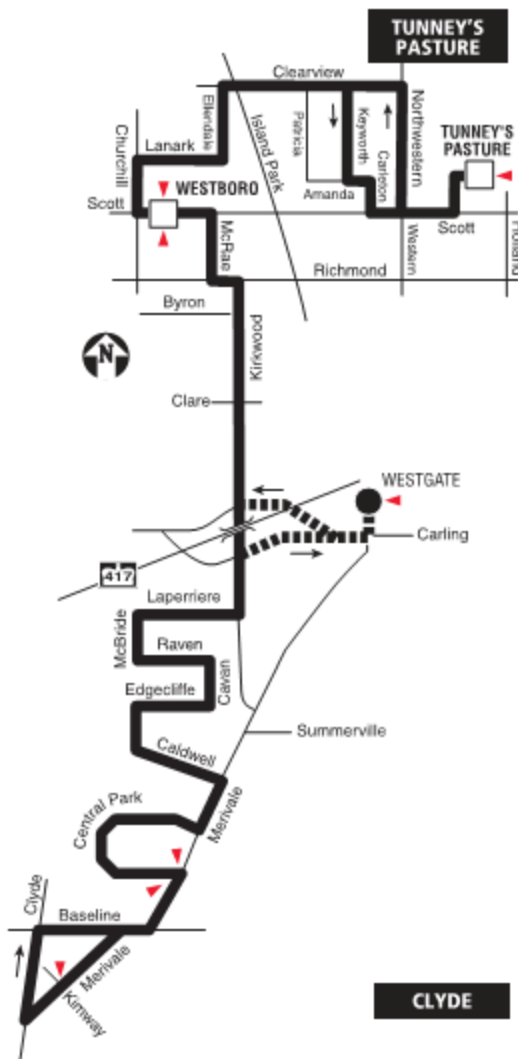
81

TUNNEY'S PASTURE CLYDE

Local

Monday to Saturday / Lundi au samedi

No service Sat. eve. or all day Sunday / Aucun service le soir le sam. ou toute la journée dimanche





16

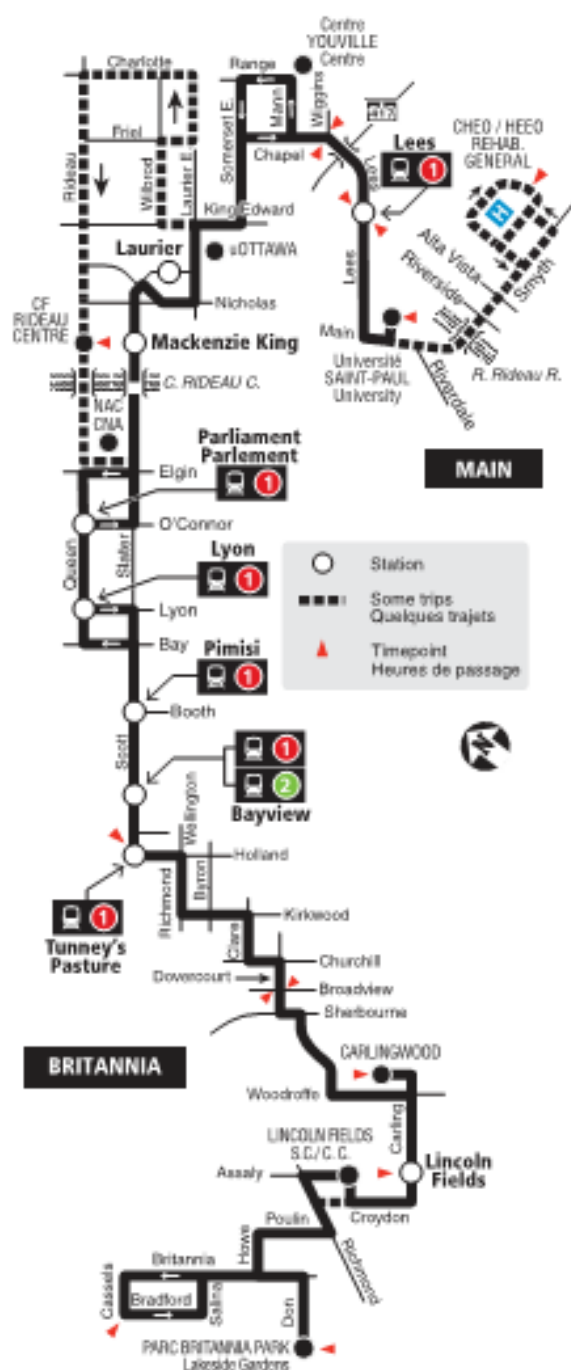
**MAIN
BRITANNIA**

Fréquent

7 days a week / 7 jours par semaine

All day service

Service toute la journée





153

**LINCOLN FIELDS
BAYSHORE
TUNNEY'S PASTURE
CARLINGWOOD**

Local

7 days a week / 7 jours par semaine

Selected time periods only
Périodes sélectionnées seulement



APPENDIX D

Traffic Count Data

Turning Movement Count - Peak Hour Diagram

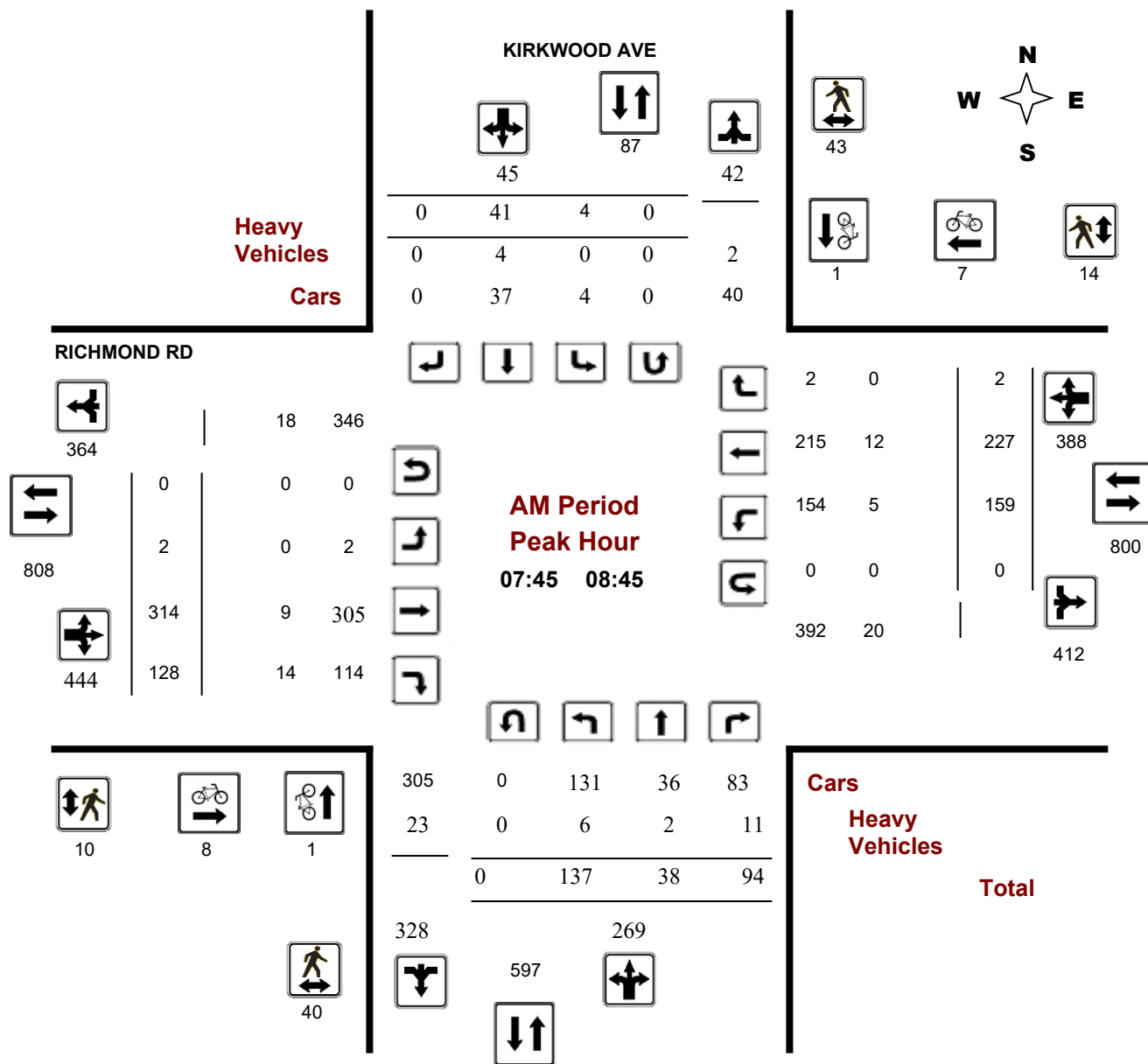
KIRKWOOD AVE @ RICHMOND RD

Survey Date: Thursday, April 20, 2017

Start Time: 07:00

WO No: 36956

Device: Miovision



Turning Movement Count - Peak Hour Diagram

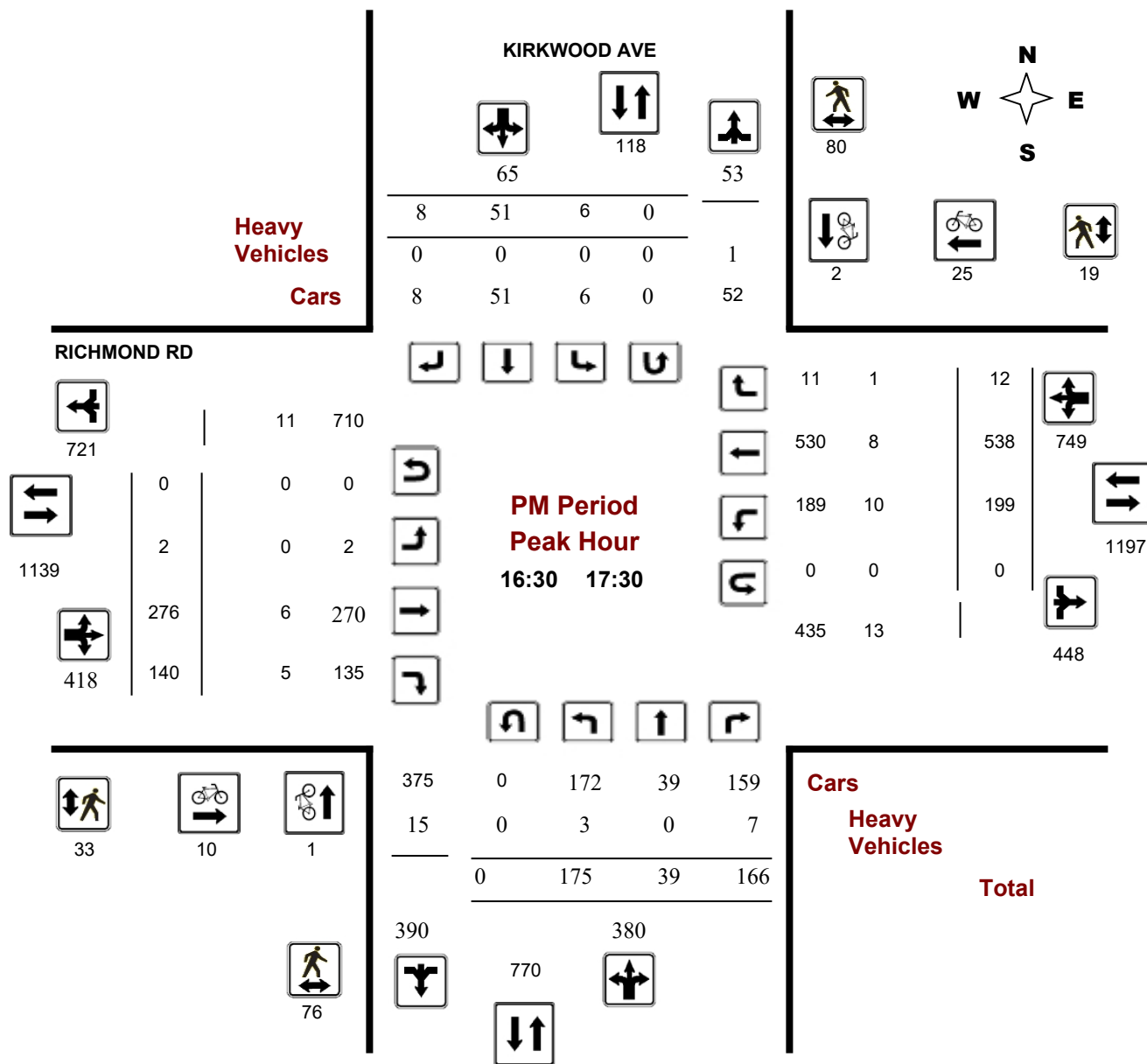
KIRKWOOD AVE @ RICHMOND RD

Survey Date: Thursday, April 20, 2017

Start Time: 07:00

WO No: 36956

Device: Miovision



APPENDIX E

Collision Records



City Operations - Transportation Services

Collision Details Report - Public Version

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

Location: BYRON AVE @ KIRKWOOD AVE

Traffic Control: Traffic signal

Total Collisions: 14

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2016-Oct-03, Mon,14:22	Clear	Rear end	P.D. only	Dry	North	Going ahead	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
					North	Stopped	Pick-up truck	Other motor vehicle	
2016-Aug-15, Mon,10:18	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Jun-08, Mon,10:27	Rain	Other	P.D. only	Wet	North	Reversing	Passenger van	Other motor vehicle	
					North	Stopped	Automobile, station wagon	Other motor vehicle	
2015-Feb-13, Fri,15:14	Clear	Sideswipe	P.D. only	Dry	South	Changing lanes	Pick-up truck	Other motor vehicle	
					South	Turning right	Automobile, station wagon	Other motor vehicle	
2015-Feb-11, Wed,20:56	Snow	Angle	P.D. only	Packed snow	South	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

2014-Sep-16, Tue,14:47	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Aug-26, Tue,16:40	Clear	Angle	Non-fatal injury	Dry	South	Turning right	Automobile, station wagon	Cyclist
					East	Going ahead	Bicycle	Other motor vehicle
2014-Apr-07, Mon,10:36	Clear	Angle	Non-fatal injury	Dry	North	Going ahead	Passenger van	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle
2013-Dec-07, Sat,17:31	Clear	Turning movement	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Cyclist
					East	Going ahead	Bicycle	Other motor vehicle
2013-Nov-11, Mon,07:42	Clear	Rear end	P.D. only	Dry	North	Turning left	Pick-up truck	Other motor vehicle
					North	Turning left	Automobile, station wagon	Other motor vehicle
2013-Sep-28, Sat,14:23	Clear	Turning movement	P.D. only	Dry	South	Turning left	Automobile, station wagon	Other motor vehicle
					North	Going ahead	Automobile, station wagon	Other motor vehicle
2013-Aug-23, Fri,15:54	Clear	Rear end	Non-fatal injury	Dry	East	Going ahead	Automobile, station wagon	Other motor vehicle
					East	Stopped	Automobile, station wagon	Other motor vehicle

2013-Jun-28, Fri,11:30	Rain	Rear end	P.D. only	Wet	South	Going ahead	Passenger van	Other motor vehicle
					South	Stopped	Automobile, station wagon	Other motor vehicle

2013-Mar-20, Wed,10:18	Clear	Angle	P.D. only	Wet	South	Going ahead	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle

Location: CLIFTON RD @ SCOTT ST

Traffic Control: Stop sign

Total Collisions: 3

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Jan-04, Wed,15:45	Snow	Angle	P.D. only	Loose snow	North	Turning left	Pick-up truck	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Nov-24, Mon,15:00	Clear	Angle	P.D. only	Wet	North	Turning left	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2013-Jun-20, Thu,19:01	Clear	Angle	Non-fatal injury	Dry	North	Turning right	Automobile, station wagon	Cyclist	
					East	Going ahead	Bicycle	Other motor vehicle	

Location: KIRKWOOD AVE @ RICHMOND RD

Traffic Control: Traffic signal

Total Collisions: 24

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2017-Nov-06, Mon,20:00	Clear	Sideswipe	P.D. only	Dry	East	Unknown	Unknown	Other motor vehicle	

					East	Going ahead	Automobile, station wagon	Other motor vehicle
2017-Sep-20, Wed,15:49	Clear	Turning movement	P.D. only	Dry	North	Turning left	Automobile, station wagon	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2017-Aug-16, Wed,16:18	Clear	Turning movement	Non-fatal injury	Dry	East	Going ahead	Municipal transit bus	Other motor vehicle
					East	Turning right	Automobile, station wagon	Other motor vehicle
2017-Jun-14, Wed,21:35	Clear	Rear end	P.D. only	Dry	North	Turning right	Automobile, station wagon	Other motor vehicle
					North	Turning right	Automobile, station wagon	Other motor vehicle
2017-Jan-04, Wed,15:00	Snow	Rear end	P.D. only	Slush	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					West	Stopped	Pick-up truck	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2016-Dec-18, Sun,18:00	Snow	Turning movement	P.D. only	Slush	East	Turning right	Automobile, station wagon	Other motor vehicle
					West	Turning left	Automobile, station wagon	Other motor vehicle
2016-Oct-08, Sat,19:37	Clear	Rear end	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Other motor vehicle
					West	Turning left	Automobile, station wagon	Other motor vehicle

2016-Jul-19, Tue,16:21	Clear	Sideswipe	P.D. only	Dry	East	Changing lanes	Automobile, station wagon	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2016-Jun-11, Sat,20:41	Clear	SMV other	Non-fatal injury	Dry	North	Turning left	Pick-up truck	Pedestrian	1
2016-Feb-12, Fri,14:42	Clear	Angle	P.D. only	Wet	East	Turning right	Automobile, station wagon	Other motor vehicle	
					North	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Oct-28, Wed,13:51	Rain	Rear end	Non-fatal injury	Wet	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	
2015-Jun-18, Thu,15:29	Clear	Sideswipe	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	
2015-Jan-31, Sat,10:40	Clear	Turning movement	P.D. only	Wet	West	Turning left	Passenger van	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2014-Dec-08, Mon,14:44	Clear	Sideswipe	P.D. only	Dry	East	Overtaking	Pick-up truck	Other motor vehicle	
					East	Stopped	Municipal transit bus	Other motor vehicle	

2014-Sep-18, Thu,17:32	Clear	Turning movement	P.D. only	Dry	East	Turning right	Municipal transit bus	Other motor vehicle
					West	Turning left	Automobile, station wagon	Other motor vehicle
					North	Turning left	Automobile, station wagon	Other motor vehicle
2014-Sep-15, Mon,00:34	Rain	SMV other	P.D. only	Wet	West	Going ahead	Pick-up truck	Ran off road
2014-Sep-08, Mon,17:53	Clear	Angle	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle
					South	Going ahead	Automobile, station wagon	Other motor vehicle
2014-Sep-08, Mon,15:42	Clear	Turning movement	P.D. only	Dry	East	Turning right	Municipal transit bus	Other motor vehicle
					West	Turning left	Automobile, station wagon	Other motor vehicle
2014-Mar-18, Tue,12:42	Clear	Rear end	P.D. only	Dry	North	Slowing or stopping	Pick-up truck	Other motor vehicle
					North	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2014-Feb-21, Fri,13:00	Rain	Rear end	P.D. only	Wet	West	Slowing or stopping	Pick-up truck	Other motor vehicle
					West	Stopped	Automobile, station wagon	Other motor vehicle
2014-Feb-18, Tue,17:20	Clear	Angle	P.D. only	Slush	South	Turning right	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Pick-up truck	Other motor vehicle

2013-Oct-26, Sat,16:25	Rain	Sideswipe	P.D. only	Wet	East	Pulling away from shoulder or curb	Automobile, station wagon	Other motor vehicle
					East	Going ahead	Automobile, station wagon	Other motor vehicle
2013-Feb-06, Wed,18:30	Clear	Rear end	P.D. only	Dry	South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
					South	Slowing or stopping	Automobile, station wagon	Other motor vehicle
2013-Jan-05, Sat,15:15	Clear	Sideswipe	P.D. only	Wet	West	Changing lanes	Automobile, station wagon	Other motor vehicle
					West	Going ahead	Automobile, station wagon	Other motor vehicle

Location: MCRAE AVE @ RICHMOND RD

Traffic Control: Traffic signal

Total Collisions: 11

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuvre	Vehicle type	First Event	No. Ped
2017-Dec-23, Sat,15:30	Snow	Rear end	P.D. only	Loose snow	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2017-Jul-15, Sat,13:28	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Pedestrian	1
2017-Jan-30, Mon,13:48	Clear	SMV other	Non-fatal injury	Dry	West	Turning left	Automobile, station wagon	Pedestrian	1
2015-Dec-12, Sat,08:55	Clear	Angle	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					South	Going ahead	Pick-up truck	Other motor vehicle	

2015-Aug-29, Sat,08:15	Clear	Rear end	P.D. only	Dry	East	Going ahead	Pick-up truck	Other motor vehicle	
					East	Stopped	Pick-up truck	Other motor vehicle	
2014-Nov-04, Tue,17:46	Snow	Rear end	P.D. only	Wet	West	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					West	Stopped	Pick-up truck	Other motor vehicle	
2014-Aug-26, Tue,18:41	Clear	Rear end	P.D. only	Dry	West	Going ahead	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Passenger van	Other motor vehicle	
2013-Nov-17, Sun,17:16	Clear	SMV other	Non-fatal injury	Wet	East	Going ahead	Automobile, station wagon	Pedestrian	1
2013-Sep-12, Thu,18:00	Rain	Rear end	P.D. only	Wet	East	Turning left	Automobile, station wagon	Other motor vehicle	
					East	Turning left	Automobile, station wagon	Other motor vehicle	
2013-Jun-01, Sat,18:12	Rain	Rear end	P.D. only	Wet	East	Going ahead	Pick-up truck	Other motor vehicle	
					East	Stopped	Automobile, station wagon	Other motor vehicle	
2013-Mar-26, Tue,15:27	Clear	Turning movement	P.D. only	Dry	East	Making "U" turn	Automobile, station wagon	Other motor vehicle	
					West	Going ahead	Automobile, station wagon	Other motor vehicle	

Location: PATRICIA AVE @ RICHMOND RD

Traffic Control: Traffic signal

Total Collisions: 4

Date/Day/Time	Environment	Impact Type	Classification	Surface Cond'n	Veh. Dir	Vehicle Manoeuver	Vehicle type	First Event	No. Ped
2016-Jan-31, Sun,15:34	Clear	Rear end	P.D. only	Wet	West	Slowing or stopping	Pick-up truck	Other motor vehicle	
					West	Stopped	Automobile, station wagon	Other motor vehicle	
2014-Apr-06, Sun,02:05	Clear	SMV other	P.D. only	Dry	Unknown	Unknown	Unknown	Pole (utility, power)	
2013-Jul-06, Sat,15:43	Clear	Rear end	P.D. only	Dry	East	Slowing or stopping	Automobile, station wagon	Other motor vehicle	
					East	Going ahead	Automobile, station wagon	Other motor vehicle	
2013-Apr-06, Sat,09:02	Clear	SMV other	P.D. only	Dry	North	Turning right	Truck and trailer	Other	