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MEMO

DATE	December 17, 2025	**PROJECT NO.**	1909-5877-4
RE	Site 3B (Building E), National Capital Business Park 4055 Russell Road, City of Ottawa Transportation Impact Assessment Memorandum		
TO	Wally Dubyk, C.E.T. Transportation Project Manager, City of Ottawa		
FROM	Aidan Hallsworth, P.Eng Peter Apasnore, MASc., P.Eng, PTOE (C.F. Crozier & Associates Inc.)		

Dear Wally,

C.F. Crozier & Associates Inc. (Crozier) was retained by Avenue 31 Capital Inc. to provide transportation engineering services in support of the development application for a proposed warehouse located within the National Capital Business Park lands in the City of Ottawa.

This Transportation Impact Assessment Memo (TIA) for the Site 3B (Building E) development proposal builds on previous work undertaken for the larger National Capital Business Park (NCBP) lands. A Master TIA for the full National Capital Business Park was prepared by Novatech in May 2020 which analyzed the transportation impacts of all the NCBP sites, including the subject site 3B herein. Given only minor changes have been made to the current site plan compared to those outlined in the NCBP Master TIA, a full assessment of transportation impacts is redundant. Per the email correspondence between Wally Dubyk (City of Ottawa) and Aidan Hallsworth (Crozier), included within **Appendix A**, a TIA Memo with the agreed upon scope was confirmed as sufficient in assessing the transportation impacts associated with the Site 3B (Building E) development proposal. The TIA Memo analyzes the following elements:

- Discussion on TIA Steps 1 and 2.1
- TIA Step 3.1 – Trip Generation Forecasts during the weekday a.m. and p.m. peak hours;
- TIA Step 4 – Analysis
    - Site Access and Safety Review
    - Site Circulation Review
    - Parking Review
    - Boundary Street Design Review
    - Transportation Demand Management Review

1.0 BACKGROUND

The Site 3B subject lands are partially located within the property known as 4055 Russell Road and is separated from the main NCBP Site 3 by a natural heritage feature. Located within the City of Ottawa, the subject lands are bounded by the remainder of NCBP Site 3 to the north, Russell Road to the west, Highway 417 off-ramp to the east and Hunt Club Road to the south. The lands are designated "Urban Employment Area" per the City of Ottawa Official Plan, reflecting the generally industrial nature of the surrounding areas. **Figure 1** outlines the site location.

Per the latest Site Plan prepared by McRobie Architects + Interior Designers (dated October 30, 2025, and included as **Appendix B**), the proposed development consists of a warehouse building, including an office component, with a combined Gross Floor Area (GFA) of 2,787 m². The development proposes a surface parking lot with a total of 45 vehicle parking spaces, along with four loading spaces. Two full-moves site access connections to Russell Road are proposed to serve the site.

As previously noted, the site is located within the planned National Capital Business Park, an industrial business park development located along Russell Road. Previously, a Master Transportation Impact Assessment (NCBP Master TIA) was prepared for all three of the planned sites within the business park (Novatech, May 2020). The NCBP Master TIA provided a comprehensive assessment of the transportation impacts associated with the planned developments, including the proposed development herein.

Within the NCBP Master TIA, the analysis assumed a development referred to as Building F, consisting of a warehouse building and office space with a combined GFA of 1,540 m². The current Site 3B development proposal has a larger combined GFA of 2,787 m²; however, this development size is still small and falls below the City of Ottawa trip generation threshold of 5,000m² for industrial developments. Therefore, in accordance with the scope established with City of Ottawa staff, this Transportation Impact Assessment (TIA) Memo reviews the development proposal through a trip generation forecast, a safety assessment of the proposed site accesses, and a review of the proposed parking supply to provide a current assessment of the Site 3B development in support of the development application.

Refer to **Appendix C** for relevant excerpts of the NCBP Master TIA.

2.0 SCREENING STEPS DISCUSSION

The City of Ottawa's *Transportation Impact Assessment (TIA) Guidelines* (2017) identify three triggers for completing a TIA report: Trip Generation, Location, and Safety. The screening assessment for each trigger is summarized below:

1. Trip Generation Trigger: For industrial developments, a minimum gross floor area (GFA) of 5,000 m² is required to satisfy this trigger. The proposed development for Site 3B has a total GFA of 2,787 m²; therefore, this requirement is not satisfied.

2. Location Trigger: The proposed driveway access is via Russell Road. Based on a review of the City of Ottawa's GeoOttawa mapping, Russell Road is not designated as part of the City's Transit Priority Network, Rapid Transit Network, or Spine Bicycle Network. In addition, the site is not located within a Design Priority Area (DPA) or a Transit-Oriented Development (TOD) Zone). Therefore, the Location Trigger is not satisfied.

3. Safety Trigger: The posted speed limit on Russell Road is 80 km/h; therefore, the Safety Trigger is satisfied.

In summary, the development satisfies one of the three trigger criteria. A full TIA would typically be required if one or more triggers are satisfied. However, since a TIA was previously completed for the site and the scale of the proposed development remains small, a full-scope TIA update is assessed to be not needed. Accordingly, a reduced scope TIA Memo assessment has been prepared instead, in accordance with the requested scope from City staff.

The completed TIA Screening Form is included in **Appendix D**. Refer to **Appendix A** for email correspondence with the City on establishing the TIA Memo scope.

3.0 SCOPING DISCUSSION

This section provides an overview of the existing and future transportation conditions surrounding the site. It summarizes the characteristics of nearby roadways, as well as the available pedestrian, cycling, and transit facilities. Any ongoing or planned transportation improvements in the area are also noted.

3.1 Existing Conditions

3.1.1 Roadways

The nearby roadways of Russell Road and Last Mile Drive were reviewed given their proximity to the subject lands. Descriptions of these facilities are outlined below:

- Russell Road is a two-lane (one lane per travel direction) undivided arterial and is classified as a truck route, permitting full loads. It runs in a northwest-southeast direction near the subject lands and has a posted speed limit of 80km/h. The City of Ottawa Official Plan identifies 30m right of way (ROW) protection for Russell Road between Hawthorne Road and the Greenbelt Boundary.

- Last Mile Drive is a two-lane (one lane per travel direction) undivided collector roadway. It runs east-west near the subject lands and has a posted speed limit of 50km/h.

3.1.2 Pedestrian and Cycling Facilities

Russell Road has gravel shoulders on both sides but does not provide any dedicated pedestrian or bicycle facilities. Last Mile Drive has paved shoulders but also does not provide any dedicated pedestrian or bicycle facilities.

3.1.3 Transit

A single bus route by OC Transpo operates near the site on Russell Road. **Table 1** provides details regarding the existing bus route 47 operation.

Table 1: Existing Transit Services

Route	Span	Time of Operation	Peak Hour Headways	Bus Stops Near Site
Bus Route 47 (OC Transpo)	Hydro Road to St. Laurent Station	Monday to Friday 5:45 a.m. - 9:00 a.m. 3:00 p.m. - 6:25 p.m.	30 minutes	Stops for both travel directions within 200 m of the site

Appendix E contains the relevant transit network information.

3.1.4 Area Traffic Management

There are no Area Traffic Management measures within the study area nor are there any Area Traffic Management studies in progress.

3.2 Future Planned Conditions

Ottawa Council approved a new Capital Infrastructure Plan on July 23, 2025, guiding the city's road, transit, and active transportation investments through 2046. The approved plan reflects a "transit-first" philosophy: road investments are pursued only where transit alone would not suffice to meet demand. Per the updated Transport Mobility Plan (TMP), the need-based transit network identifies the addition of a transit priority corridor on Hunt Club Road between Riverside Drive and Conroy Road. When implemented, the corridor will provide faster, more reliable, and more convenient transit options, making it easier for employees across the city to reach the site. Refer to **Appendix F** for the 2025 TMP excerpts.

4.0 FORECASTING

This section compares the trip generation results from the NCBP Master TIA with the new site statistics to identify any changes in expected travel demand. The comparison helps determine whether the proposed development will have a different impact on the surrounding transportation network than previously anticipated.

4.1 NCB Master TIA Trip Generation and Mode Share

Trip generation estimates were previously conducted for the proposed development identified as Building F as part of the NCBP Master TIA. The ITE Trip Generation Manual, 10th Edition was used in the Master TIA to estimate vehicle trips. Person trips were derived using an ITE Vehicle-to-Person Trip conversion factor of 1.28, consistent with the City of Ottawa's TIA Guidelines. Finally, modal share targets from the Master TIA were estimated based on existing modal shares outlined in the 2011 TRANS O-D Survey Report, with minimal changes for future modal share changed being expected.

The trip generation results for the previous development scenario in the NCBP Master TIA are summarized in **Table 2**. Refer to **Appendix C** for NCBP Master TIA Trip Gen.

Table 2: NCBP Master TIA Trip Generation and Modal Share

Building (Units/GFA)	ITE Land Use Category	AM			PM		
		Trips Generated			Trips Generated		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Person Trips Generated – Full Site 3							
Warehouse Building B & F **(120,175 ft²)**	LUC 150: Warehousing	39	12	**51**	15	39	**54**
Person Trips Generated – Site 3B (Building F Only)							
Warehouse Building F[1] (**16,575 ft²**)	LUC 150: Warehousing	5	2	**7**	2	5	**7**
Person Trip by Modal Share – Site 3B (Building F)							
Travel Mode	**Target Modal Share**	**AM**			**PM**		
		Trips Generated			**Trips Generated**		
		Inbound	**Outbound**	**Total**	**Inbound**	**Outbound**	**Total**
Auto Driver	70%	4	2	**6**	2	4	**6**
Auto Passenger	15%	1	0	**1**	0	1	**1**
Transit	10%	0	0	**0**	0	0	**0**
Active Trips	5%	0	0	**0**	0	0	**0**
Total	**100%**	**5**	**2**	**7**	**2**	**5**	**7**

Note 1: Trip Generation of Building F is 14% of Building B and F combined, based on GFAs in the NCBP Master TIA.

Therefore, in the NCBP Master TIA, the proposed development was projected to generated 7 two-way person trips in each of the weekday a.m. and p.m. peak hours.

4.2 New Site Stats Trip Generation and Mode Share

Trip generation for the proposed development was forecasted for the peak hours using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 12th Edition and the City of Ottawa TRANS Trip Generation Manual given that the TRANS Trip Generation Manual does not have trip generation rates for employment type land uses.

The proposed development includes a 3,100 m² (33,370 ft²) GFA warehouse building, therefore, this area was used for determining future trips at the site. LUC 150 "Warehousing" was applied to the warehouse building GFA, and the average rate methodology was applied for the forecast. Person trips were derived using an ITE Vehicle-to-Person Trip conversion factor of 1.28, consistent with the City of Ottawa's TIA Guidelines and the NCBP Master TIA . Modal share targets from the NCBP Master TIA were reapplied for this person trip generation forecast. In addition to forecasting passenger vehicle trips, truck trips were also forecasted using a similar methodology to the ITE passenger vehicles forecast.

Table 3 outlines the results of the ITE trip generation forecast for the proposed development.

Table 3: New Site Stats Trip Generation and Mode Share

Building (Units/GFA)	ITE Land Use Category	AM			PM		
		Trips Generated			Trips Generated		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Truck Trips Generated							
Warehouse Site 3B **(33,370 ft²)**	LUC 150: Warehousing	1	0	**1**	0	1	**1**
Vehicle Trips Generated							
Warehouse Site 3B **(33.370 ft²)**	LUC 150: Warehousing	3	1	**4**	1	4	**5**
Person Trips Generated							
Warehouse Site 3B (**1.28 of Vehicle Trips)**	LUC 150: Warehousing	4	1	**5**	1	5	**6**
Person Trip by Modal Share							
Travel Mode	**Target Modal Share**	**AM**			**PM**		
		Trips Generated			**Trips Generated**		
		Inbound	**Outbound**	**Total**	**Inbound**	**Outbound**	**Total**
Auto Driver	70%	3	1	**4**	1	4	**5**
Auto Passenger	15%	1	0	**1**	0	1	**1**
Transit	10%	0	0	**0**	0	0	**0**
Active Trips	5%	0	0	**0**	0	0	**0**
Total		**4**	**1**	**5**	**1**	**5**	**6**

Based on the ITE Trip Generation estimates, the proposed land use is forecasted to generate 4 and 5 total two-way vehicle trips during the weekday a.m. and p.m. peak hours, respectively. In addition, 1 and 5 truck trips are also projected in the weekday a.m. and p.m peak hours, respectively.

4.3 Net Trip Generation

A net trip generation analysis explains the change in the number of trips generated by comparing the trips from the NCBP Master TIA site statistics to those associated with the currently proposed site statistics. Two comparisons were conducted: one comparing the 10th Edition ITE vehicle trip generation rates used in the NCBP Master TIA against the 12th Edition rates applied to the current Site 3B development, and another comparing the 12th Edition vehicle trip generation rates applied to both the Master TIA development scale and the current Site 3B development to provide a consistent, updated assessment. The details of the net trip generation during the weekday a.m. and p.m. peak hours for both person trips and vehicle trips are summarized in **Table 4** and **Table 5** below.

Table 4: Net Trip Generation Comparison (ITE 12th Edition and ITE 10th Edition Comparison)

Building (Units/GFA)	ITE Land Use Category (Edition)	GFA	AM			PM		
			Trips Generated			Trips Generated		
			Inbound	Outbound	Total	Inbound	Outbound	Total
New Site Stat Trip Generation	LUC 150: Warehousing (12th Edition)	33,370 ft²	4	1	**5**	1	5	**6**
NCB Master TIA Trip Generation	LUC 150: Warehousing (10th Edition)	16,575 ft²	5	2	**7**	2	5	**7**
Net Trip Generation			**-1**	**-1**	**-2**	**-1**	**0**	**-1**

Table 5: Net Trip Generation Comparison (ITE 12th Edition Comparison)

Building (Units/GFA)	ITE Land Use Category (Edition)	GFA	AM			PM		
			Trips Generated			Trips Generated[2]		
			Inbound	Outbound	Total	Inbound	Outbound	Total
New Site Stat Trip Generation	LUC 150: Warehousing (12th Edition)	33,370 ft²	3	1	**4**	1	4	**5**
NCB Master[1] TIA Trip Generation		16,575 ft²	3	0	**3**	1	1	**2**
Net Trip Generation			**+0**	**+1**	**+1**	**0**	**+3**	**+3**

Note 1: ITE Vehicle-to-Person Trip conversion factor of 1.28 was applied.
Note 2: Trips appear to not correlate with area, but this is due to rounding.(4.5 trips New Site vs 2.49 trips NCBP Master TIA)

Based on the results in **Tables 4** and **5**, the proposed Site 3B development is expected to generate slightly fewer trips during the peak hours compared to the NCBP Master TIA (was based on 10th Edition), primarily due to the updated ITE 12th Edition trip rates, which reflect lower trip generation for warehouse uses during typical commuter peak hours. When both developments are assessed using 12th Edition rates, an increase in trips is observed, consistent with the larger GFA. However, the forecasted trip generation is still minimal and is not expected to create any traffic operation issues; therefore, a detailed capacity analysis was not completed, as confirmed in the study terms with the city.

5.0 ANALYSIS

The analysis section discusses the outcome of the transportation assessment process and identifies the necessary mitigation measures to support the development proposal, as required. The Analysis TIA step includes a transportation design review of the Site Plan, which considers the access configuration, parking supply, and internal site circulation for all applicable transportation modes.

5.1 Site Access Safety Review

The development proposal includes two site accesses that connect to the proposed arterial roadway fronting the site. This section evaluates the suitability of the site accesses from a transportation safety perspective and recommends mitigation measures, if warranted. The safety review of the accesses includes an assessment of whether turning maneuvers can be made safely at the site accesses without issues related to sight lines, intersection and access spacing. It is noted that the site access naming convention is site access #1 as the northwesterly access, and site access #2 as the southeasterly access.

5.1.1 Intersection Sight Distance

Section 9.9 of the Transportation Association of Canada Geometric Design Guide for Canadian Roads (TAC GDGCR) provides intersection sight distance for different intersection control types. The calculated and design sight distances are further summarized in TAC GDGCR Tables 9.9.4, 9.9.6 and 9.9.12 for vehicles turning left from stop, turning right from stop, or turning left from the major road, respectively.

Case B1 (Left Turn from the Minor Road) and Case B2/B3 (Right Turn / Crossing Maneuver from the Minor Road) were used to evaluate sight line adequacy for the site accesses. A TAC WB-19 / WB-20 combination truck was used for the assessment given it is expected to be the most constraining typical design vehicle profile present on site. **Table 6** summarizes the sight distance analysis for the proposed site accesses.

Table 6: Intersection Sight Distance Assessment

Russell Road and Site Access #1		
Formula	**ISD = 0.278 * V_{major} * t_g**	
Feature	**Case B1 – Left Turn/through**	**Case B2/B3 – Right Turn**
Posted Speed	80km/h	
Design Speed (Assumed)	90km/h	
Time Gap	11.5s	10.5s
Required Sight Distance	290m	265m
Available Sight Distance	> 290m	>265m
Russell Road and Site Access #2		
Formula (TAC	**ISD = 0.278 * V_{major} * t_g**	
Feature	**Case B1 – Left Turn**	**Case B2/B3 – Right Turn**
Posted Speed	**80km/h**	
Design Speed (Assumed)	90km/h	
Time Gap	11.5s	10.5s
Required Sight Distance	290m	265m
Available Sight Distance	> 290m	>265m

The available sight distance at both of the site accesses satisfy the minimum sight distance requirements. Accordingly, the proposed site accesses can be supported from an intersection sight distance perspective.

5.1.2 Access Spacing and Corner Clearance

The geometrics and spacings of the site accesses were reviewed as part of the Access Intersection Review. The requirements of the City of Ottawa Private Approach By-Law No. 2003-447 and the Transportation Association of Canada Geometric Design Guide for Canadian Roads (TAC-GDGCR) were used for the assessment.

Tables 7 and 8 summarize the findings from the access review against the requirements of the City of Ottawa Private Approach By-Law No. 2003-447 and the TAC-GDGDCR Figures 8.8.2 and 8.9.2 for roadway frontage and access spacing, respectively. The larger of the two requirements in these manuals govern for the assessment and thus are displayed for the evaluation in **Table 8**.

Table 7: Private Approach By-Law Roadway Frontage Evaluation

Clause No.	Roadway (Frontage)	Maximum # of two-way private approaches	Satisfied?
S25.(1)(a-b)	Russell Road (~340m)	4	Yes (2 accesses)

Table 8: Access Spacing Evaluation (Private Approach By-Law and TAC-GDGCR)

Access	Viewing Direction relative to the Access	Distance Required to nearest Street / Private Access		Distance Provided to nearest Street / Private Access		Satisfied?
		Street	Access	Street	Access	
Site Access #2 at Russell Road (Southeast Access)	South	35m	15m	>100m	>100m	Yes
	North			>100m	15m	Yes
Site Access #1 at Russell Road (Northwest Access)	South			>100m	>100m	Yes
	North			>100m	>100m	Yes

The northwest access meets the applicable spacing requirements if considered a part of the Russell Road and Last Mile Drive intersection. It is recognized that the access is not fully aligned with the Last Mile Drive intersection approach at Russell Road. However. while a directly opposed access alignment would be most preferable from a safety perspective, the proposed fourth intersection access leg would still be within the intersection area given it is visible from all other intersection legs under this irregular configuration. Similarly, sight lines are available from the access to the other intersection approaches as well as confirmed in the sight distance evaluation above. Therefore, the access is expected to function adequately from a safety perspective.

The southeast access is spaced 15m from the nearest access opposite the street serving the Site 1 NCBP development, and over 100m to other accesses and or streets. Therefore, access spacing is sufficient for site access #2 as well.

Finally, the driveway widths of the existing site accesses are in conformance with the Private Approach Zoning By-Law S25.(1)(c), which specifies that driveway widths shall not exceed the 9m requirement except at the site accesses to accommodate heavy vehicles and fire trucks to access the site as required, in accordance with S25.(1)(e).

5.2 Site Circulation Review

Based on the vehicle maneuverability diagrams in **Appendix G**, drive-aisle width and parking lot space has been provided to allow for proper internal circulation. The site accesses have adequate radii to support the trucks expected at the site as shown on the Site Plan. The Site Plan shows feasible maneuverability for a WB-20 semi-trailer, a Heavy Single Unit (HSU) truck, an aerial fire truck, and a TAC passenger car, representing the most constrained vehicle profiles expected onsite. Therefore, it is expected that the site accesses and the site itself will be functionally and operationally adequate based on the vehicle maneuvering diagrams displayed on the Site Plan.

5.3 Parking Review

The site is located in area "C – suburban" and the applicable zoning by-law parking requirements for the proposed development are summarized in **Table 9**. Section 101(7), Row N95 "Warehousing" of Table 101 of the City's zoning by-law parking requirement was used to determine parking requirements for the entire site. Though there is small office spaces located within the warehouse building, these offices are expected to function as ancillary spaces to the main warehouse and will be used by warehousing employees. Therefore, no additional parking is calculated for the office components.

Table 9: Parking Summary

Land Use	Gross Floor Area (GFA)	By-Law Parking Rate	Total Parking Required	Parking Supply
Warehousing	3,100 m^2	0.8 per 100 m^2 for the first 5000 m^2 GFA, 0.4 per 100 m^2 thereafter	25 parking spaces	45 parking spaces

The vehicle parking supply therefore exceeds the parking spaces required by the City of Ottawa Zoning By-Law No. 2008-250. The parking supply provided is adequate given the location of the site at the periphery of the City of Ottawa urban area.

In addition, the site provides the required barrier-free accessible parking spaces. Further, the development will provide the required bicycle parking supply of at least 2 spaces (4 spaces provided), satisfying the By-Law requirement of 1 per 2000m^2 for warehousing uses according to Table 111A(h) of Section 111 of the Zoning By-Law.

Furthermore, the development proposal was compared against the Zoning By-Law requirements for loading. The development proposal is industrial in nature, therefore, row "(a)" of the Table 113A loading requirements were used for the assessment. A minimum requirement of two loading spaces is applicable to the proposed development. There is excess loading space supply of four proposed for the development, which satisfies the City of Ottawa Zoning By-Law requirements for loading.

5.4 Boundary Street Design

The boundary roadways of Russell Road and Hunt Club Road were evaluated using the City of Ottawa Multi-Modal Level of Service (MMLOS) Guidelines within the NCBP Master TIA. The results of this assessment have been re-summarized herein for convenience. It is noted that no change in the boundary roadways which would alter the MMLOS assessment has been recorded since the date of the NCBP Master TIA. As such, the assessment is still considered accurate as of the date of this memorandum.

The NCBP Master TIA MMLOS assessment included evaluation of the Pedestrian Level of Service (PLOS), Bicycle Level of Service (BLOS) and Truck Level of Service (TkLOS). Since neither Russell Road nor Hunt Club Road have been identified as a transit priority corridor, Transit Level of Service (TLOS) was not evaluated for the boundary roadways. **Table 10** summarizes the MMLOS assessment on the boundary roadways.

Table 10: MMLOS Summary

Roadway	Horizon	PLOS	BLOS	TkLOS
Russell Road	**Existing**	F	F	C
	Target	C	E	B
Hunt Club Road	**Existing**	F	E	A
	Target	C	C	B

The results of the MMLOS evaluation demonstrate that the PLOS and BLOS are deficient on both boundary roadways, while TkLOS on Russell Road may also need improvement. In order to improve the existing MMLOS to the desired, the following transportation infrastructure improvements as already captured in the previous Mater TIA may be considered by the City:

- Urbanization of Russell Road between Hawthorne Road and Hunt Club Road overpass. Urbanization may include reducing the posted speed limit from 80 km/h to 50 km/h and introduction of a pedestrian 2 m sidewalk (or 3 m multi-use path) and a 2 m boulevard.

- There already appears to be a sidewalk and an on street cycling lane on Hunt Club Road for the segment west of Last Mile Drive, which should be satisfactory for the proposed site. Potential speed limit reduction for the subject segment may also be considered in future.

- For Russell Road, widening the lane widths to at least 3.7m to satisfy the TkLOS requirements.

Annex 1 of the City of Ottawa's Official Plan identifies a 30 m right of way (ROW) protection for Russell Road between Hawthorne Road and the Greenbelt boundary, and a 42.5m to 50m ROW protection for Hunt Club Road near Last Mile Drive. Therefore, the improvements identified above are feasible if the City choses to implement them. If the noted improvements are implemented, the TIA LOS targets would be met.

6.0 Conclusion and Recommendations

This Transportation Impact Assessment (TIA) Memorandum has assessed the transportation impacts of the proposed National Capital Business Park "Site 3B" industrial development within the 4055 Russell Road property in the City of Ottawa. The analysis contained within this Memo has resulted in the following key findings:

- The proposed Site 3B development is expected to generate approximately 4 and 5 total two-way passenger auto trips, 1 and 5 total two-way truck trips, and 5 and 6 total person trips during the weekday a.m. and p.m. peak hours, respectively. Compared to the previous NCBP Master TIA forecasts, the change in trip generation is minimal, with only minor differences in the number of trips during each peak hour. Given these low trip volumes, the development is not expected to result in any operational issues on the surrounding road network.

- The updated 2025 Transportation Master Plan prioritizes transit improvements, reflecting a city-wide transit-first approach. The City's planned addition of a transit priority corridor on Hunt Club Road will enhance travel options by providing faster, more reliable, and more convenient transit access for employees across the city and at this development.

- The two proposed site accesses to the Russell Road are expected to adequately accommodate development traffic without significant issues related to sight-lines, access spacing, corner clearance, access conflicts, and truck maneuverability.

- The MMLOS assessment indicates deficiencies in pedestrian and cycling facilities on Russell Road and Hunt Club Road, with truck operations on Russell Road also needing improvement. Implementing the recommended measures, including urbanization, lane widening, and reducing the speed limit on Russell Road, along with maintaining or enhancing facilities and considering speed adjustments on Hunt Club Road, would address these issues and achieve the target MMLOS. These improvements are feasible given the available right-of-way.

The development proposal can be supported from a traffic operations and safety perspective given the findings of this TIA Memo. The nearby transportation network is expected to adequately accommodate travel demands from the development proposal, including for non-vehicular travel modes. Furthermore, no functional or safety concerns from a transportation perspective were identified. We trust that this TIA Memo addresses any transportation concerns related to the development proposal. Should you have any questions or wish to discuss further, please feel free to give us a call.

Sincerely,

C.F. CROZIER & ASSOCIATES INC.

Aidan Hallsworth, P.Eng
Project Engineer, Transportation

LICENSED PROFESSIONAL ENGINEER
12/17/25
P. A. APASNORE
100521492
PROVINCE OF ONTARIO

C.F. CROZER & ASSOCIATES INC.

Peter Apasnore, MASc., P.Eng., PTOE
Project Manager, Transportation

/IA/AH/pa

Encl.

Figures:
Figure 1 – Site Location

Appendicies:
Appendix A – Correspondence
Appendix B – Site Plan
Appendix C – National Capital Business Park Background TIA Excerpts
Appendix D – TIA Screening Form Excerpts
Appendix E – Transit Network Information
Appendix F – 2025 Transport Mobility Plan
Appendix G – Vehicle Maneuverability Diagrams

J:\1900\1909-Avenue 31\5877 - 4055 Russell Rd\Reports\TIA-Site 3b

FOR REVIEW
NOT TO BE USED FOR CONSTRUCTION

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

SITE LOCATION

CROZIER
CONSULTING ENGINEERS
211 YONGE STREET
SUITE 600
TORONTO, ON, M5B 1M4
416-477-3392 T
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	1909-5877
I.A.			
Check By	Check By	Scale	Drawing
P.A.	A.H.		LAYOUT1

APPENDIX A

Correspondence

Idris Afolabi

From: Aidan Hallsworth
Sent: Monday, October 27, 2025 9:51 AM
To: Idris Afolabi
Subject: FW: Site 3B National Capital Business Park: TIA Memo Terms of Reference

See below for Terms of Reference on the Site 3B TIA Memo.

Thanks,

Aidan Hallsworth, EIT
Engineering Intern, Transportation
DID: 905.693.4712

From: Dubyk, Wally <Wally.Dubyk@ottawa.ca>
Sent: October 27, 2025 9:29 AM
To: Aidan Hallsworth <ahallsworth@cfcrozier.ca>
Subject: RE: Site 3B National Capital Business Park: TIA Memo Terms of Reference

Hi Adrian

Please proceed with the TIA Memorandum based on the scope as listed below.

Clarification Regarding TIA Approval

It is important to clarify that the city does not "approve" a Traffic Impact Analysis (TIA) prepared by a professional engineer. Rather, the city reviews the report and, if it meets the applicable requirements and standards, signs off on it as part of the permitting or development process. This sign-off indicates that the report is acceptable for use in the decision-making process, but it does not constitute formal approval or endorsement of the engineering conclusions or methodologies used.

The responsibility for the content, analysis, and recommendations within the TIA remains solely with the professional engineer who prepared and sealed the document.

Thank you,

Wally Dubyk,Transportation Prj Mgr
Development Review
Planning, Development and Building Services Department
110 Laurier Ave West | 4th Floor | Ottawa, ON | K1P 1J1
City of Ottawa | Ville d'Ottawa
Wally.Dubyk@ottawa.ca

From: Gervais, Josiane <josiane.gervais@ottawa.ca>
Sent: October 27, 2025 9:12 AM

To: Aidan Hallsworth <ahallsworth@cfcrozier.ca>; Dubyk, Wally <Wally.Dubyk@ottawa.ca>
Cc: Peter Apasnore <papasnore@cfcrozier.ca>
Subject: Re: Site 3B National Capital Business Park: TIA Memo Terms of Reference

Good morning Aidan,

Wally Dubyk is the Transportation Project Manager for this application. Wally, can you please review the email below and get back to Aidan?

Thank you,

Josiane Gervais, P.Eng.
Project Manager, Infrastructure Approvals | GPRJ Approbation des demandes d'infrastructure
Planning, Development, and Building Services Department | Direction générale des services de la planification, de l'aménagement et du bâtiment
City of Ottawa | Ville d'Ottawa
Tel |Tél. : 613-580- 2424 ext. | poste 71765
web | Site Web : www.ottawa.ca

From: Aidan Hallsworth <ahallsworth@cfcrozier.ca>
Sent: Monday, October 27, 2025 8:57 AM
To: Gervais, Josiane <josiane.gervais@ottawa.ca>
Cc: Peter Apasnore <papasnore@cfcrozier.ca>
Subject: Site 3B National Capital Business Park: TIA Memo Terms of Reference

Good morning Josiane,

Hoping you had an enjoyable weekend. C.F. Crozier & Associates Inc. have been retained by Avenue 31 Capital Inc. to provide transportation engineering services in support of the Site 3B National Capital Business Park (NCBP) development application. I am here to confirm a Terms of Reference – you are the contact I have on file for Ottawa. If this is incorrect, if you could kindly direct me to the appropriate person, I would greatly appreciate it.

Background

The site is 1.95 ha is size and is located in the eastern portion of 4055 Russell Road. The development proposal consists of a warehouse building (2,787m^2 of Gross Floor Area), outdoor storage areas, and a

surface parking lot. Two site accesses are proposed. Refer to the attached Concept Plan by Ware Malcomb, dated March 28, 2024.

Previously, a Master TIA was submitted (by Novatech, dated May 2020) for the full NCBP, which was approved by the City of Ottawa. As this site falls within the NCBP, a TIA has already been completed for the site.

TIA Screening / Approach

The TIA Screening Form from the City's TIA Guidelines (June 2017) was filled out and is attached. The site falls below the trip generation threshold of 5000 m^2 for industrial buildings. The speed limit on Russell Road is 80 km/h, which satisfies the TIA safety trigger (similar to the previous Master TIA), and none of the remaining questions are triggered.

As only the speed limit safety trigger was satisfied, a TIA was previously completed for these lands, and that the site falls well below the City's industrial trip generation threshold, Crozier proposes to complete a Transportation Impact Assessment Memo (instead of a full TIA). The TIA Memo will not include traffic operations analysis based on the aforementioned rationales.

TIA Memo Proposed Scope

While traffic analysis related modules will not be completed in the letter, most other TIA modules are to be completed per the below proposed scope:

- Module 1 → Outline the Screening Form and reduced scope TIA.
- Module 2.1 → Existing and Planned Conditions
- Module 2.3 → Complete the Exemptions Review. The following modules will be exempt: 4.1.3 New Street Networks, 4.2.2 Spillover Parking, 4.5 Transportation Demand Management
- Module 3.1.1 → Trip Generation and Mode Shares. Trip generation will be compared with that assumed in the NCBP Master TIA to demonstrate conformity and to confirm that traffic operations analysis is not necessary.
- Module 4.1.1 → Design for Sustainable Modes
- Module 4.1.2 → Circulation and Access. This will include preparing vehicle swept path drawings.
- Module 4.2 → Assess the proposed parking supply according to the City of Ottawa ZBL requirements.
- Module 4.3 → Boundary Street Design

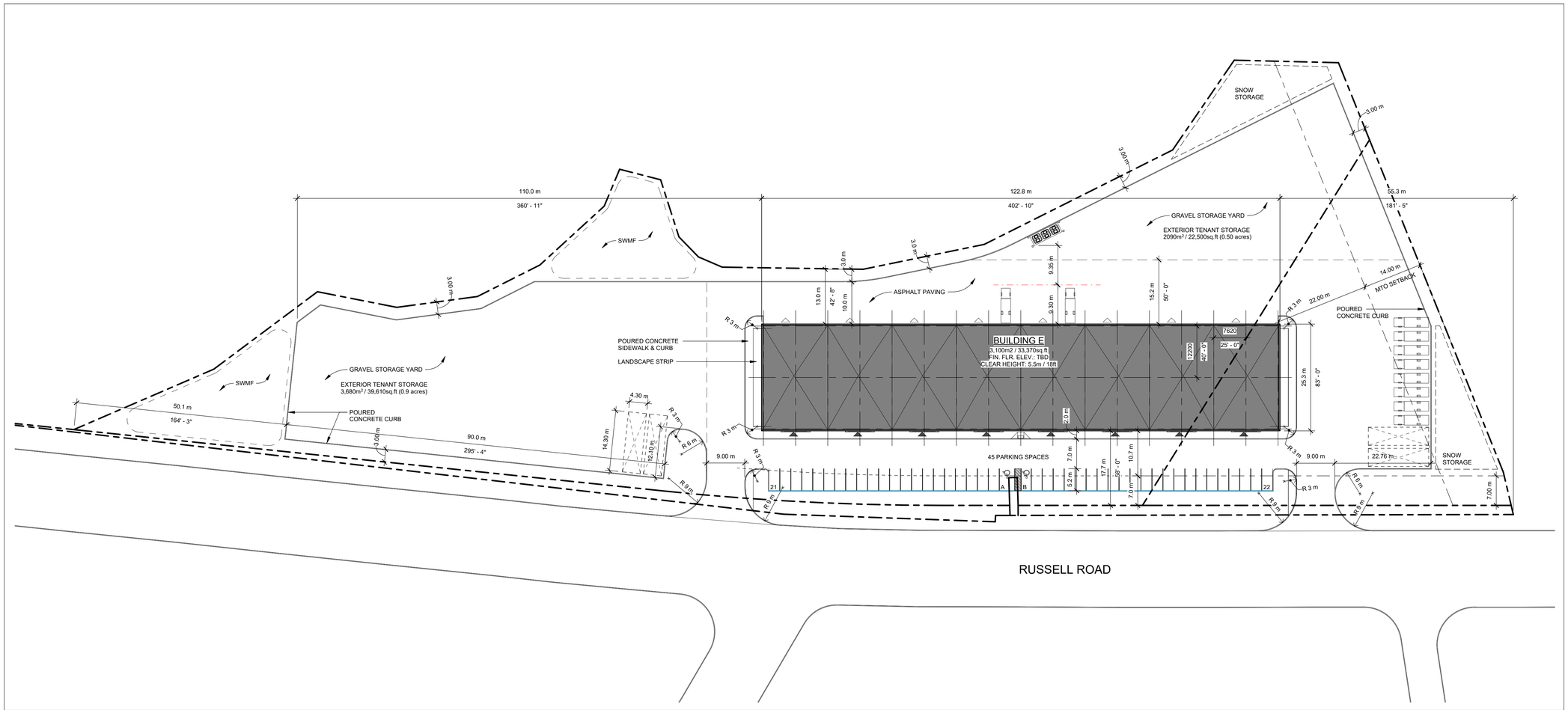
- Module 4.4 → Access Intersection Design

We would appreciate if you could provide feedback and confirm our proposed scope for the TIA Letter at the earliest opportunity so we can proceed with our work. If there are any questions, please do not hesitate to reach out.

Kind Regards,

APPENDIX B

Site Plan



04 SITE PLAN
A001 Scale: 1 : 500

ZONING MECHANISM: ZONING BY-LAW 2008-250 CONSOLIDATION	REQUIRED	PROVIDED
ZONING: IH HEAVY INDUSTRIAL ZONE	HEAVY INDUSTRIAL LIMITED COMMERCIAL	HEAVY INDUSTRIAL WAREHOUSE (N95)
MINIMUM LOT AREA:	0.4HA	1.95HA / 4.83 ACRES
MINIMUM LOT WIDTH:	NO MINIMUM	IRREGULAR LOT SHAPE
MINIMUM FRONT YARD:	7.5m	COMPLIANT WITH ZONING
MINIMUM CORNER SIDE YARD:	7.5m	COMPLIANT WITH ZONING
MINIMUM INTERIOR YARD SETBACKS:	15m WHEN ABUTTING R OR I ZONE 7.5m TYPICAL	COMPLIANT WITH ZONING
MINIMUM REAR YARD SETBACKS:	15m WHEN ABUTTING R OR I ZONE 7.5m TYPICAL	COMPLIANT WITH ZONING
MAXIMUM FLOOR SPACE INDEX:	2	COMPLIANT WITH ZONING
MAXIMUM BUILDING HEIGHT:	22m	7m
MINIMUM LANDSCAPE BUFFER WIDTH:	7.5m WHEN ABUTTING R OR I ZONE 3m TYPICAL	COMPLIANT WITH ZONING

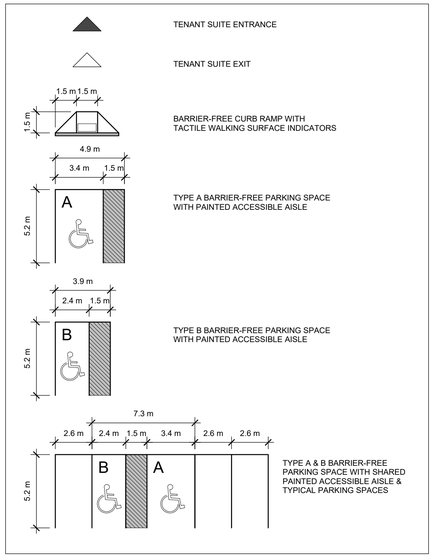
ZONING MECHANISM: ZONING BY-LAW 2008-250 CONSOLIDATION		REQUIRED	PROVIDED
PARKING, TYPICAL - SECTION 101 AREA C WAREHOUSE (N95) OR HEAVY INDUSTRIAL USE (N42): 0.8 SPACES PER 100m2 FOR FIRST 5,000m2 0.4 SPACES PER 100m2 AFTER FIRST 5,000m2	BUILDING 5: 3,100m²	23 TYPICAL 1 TYPE A ACCESSIBLE 1 TYPE B ACCESSIBLE	43 TYPICAL 1 TYPE A ACCESSIBLE 1 TYPE B ACCESSIBLE
PARKING, BARRIER FREE - SECTION 111 BYLAW 2017-301 2 WHEN TOTAL PARKING IS >25 BUT NOT >50			
BICYCLE PARKING - SECTION 111 WAREHOUSE: 1 SPACE PER 2000m2	BUILDING 5: 3,100m²	2 SPACES	4 SPACES
LOADING SPACE - SECTION 113 HEAVY INDUSTRIAL USE	BUILDING 5: 3,100m²	2 SPACES	4 SPACES OVERSIZE 13.4m x 4.3m

BUILDING CLASSIFICATION:

3.2.2.79 GROUP F, DIVISION 2, UP TO 4 STOREYS, SPRINKLERED
- COMBUSTIBLE CONSTRUCTION PERMITTED
- FLOOR ASSEMBLIES SHALL HAVE A MIN 45min FIRE RESISTANCE RATING
- MEZZANINES SHALL HAVE A MIN 45min FIRE RESISTANCE RATING
- LOAD BEARING WALLS AND COLUMNS SHALL HAVE A FIRE RESISTANCE RATING NOT LESS THAN SUPPORTED ASSEMBLIES

3.2.2.79 SPATIAL SEPARATION - TABLE 3.2.3.1.E
- 15m MINIMUM SPATIAL SEPARATION FOR 100% AREA OF UNPROTECTED OPENINGS (EBF > 200m2)
- 9m SPATIAL SEPARATION FOR 100% AREA OF UNPROTECTED OPENINGS WHEN FACING A STREET

3.4.2.5 LOCATION OF EXITS
- 45m MAXIMUM TRAVEL DISTANCE



01 LOCATION PLAN
A001 Scale:N/A

02 SITE DATA AND ZONING INFORMATION
A001 Scale:N/A

03 SITE PLAN DRAWING LEGEND
A001 Scale:N/A

MCROBIE
ARCHITECTS + INTERIOR DESIGNERS
OTTAWA, ONTARIO

Avenue31

North

PROJECT

Revisions

Revision Number	Description	Date
1	ISSUED FOR REVIEW	2025-10-31
2	ISSUED FOR REVIEW	2025-11-17
3	ISSUED FOR REVIEW	2025-11-18
4	ISSUED FOR REVIEW	2025-11-19

Project

NCBP BUILDING E

4055 RUSSELL RD.
OTTAWA, ON K1G 6Y4

Drawing

LOCATION PLAN, SITE DATA, ZONING REVIEW & SITE PLAN

Scale: As indicated
Stamp
Drawn: ERM
Checked: ERM

Project No.: 25-193
Drawing No.: A001
Date: 10/30/25

2025-11-19 4:55:57 PM

APPENDIX C

National Capital Business Park Background TIA – Reports Excerpts

NOVATECH

Engineers, Planners & Landscape Architects

Engineering

- Land / Site Development
- Municipal Infrastructure
- Environmental / Water Resources
- Traffic / Transportation
- Structural
- Recreational

Planning

- Land / Site Development
- Planning Application Management
- Municipal Planning Documents & Studies
- Expert Witness (OMB)
- Wireless Industry

Landscape Architecture

- Urban Design & Streetscapes
- Open Space, Parks & Recreation Planning
- Community & Residential Developments
- Commercial & Institutional Sites
- Environmental Restoration

36 Years

National Capital Business Park

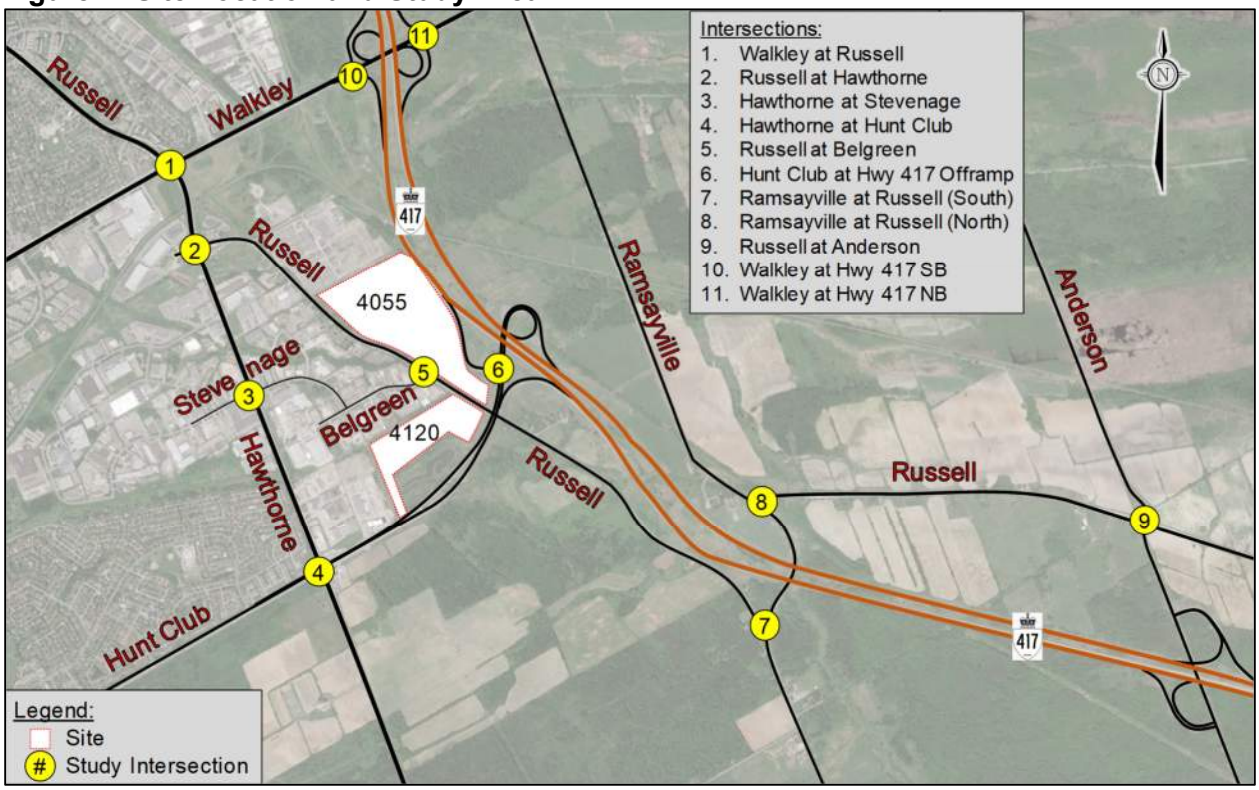
Traffic Impact Assessment

1.0 SITE LOCATION

This Transportation Impact Assessment (TIA) Forecasting report has been prepared in support of a Master Site Plan application for the National Capital Business Park at 4055 and 4120 Russell Road located west of the Hunt Club / Hwy 417 interchange (See **Figure 1**). Civic #4120 is vacant while civic #4055 includes a vacant farm as well as one single family dwelling.

The general area is characterized by a combination of various commercial and industrial land uses, including an existing hydro substation immediately north of 4055 Russell Road and a newly constructed Hydro Ottawa office just to the west of 4120 Russell Road.

Figure 1: Site Location and Study Area



2.0 PROPOSED DEVELOPMENT

The subject sites are designated as 'Urban Employment Area' on Schedule 'B' of the City of Ottawa's Official Plan and zoned IH (Heavy Industrial). The proposed development (See **Appendix A**) is planned to be completed by 2023 and includes:

Site 1- one warehouse with 8,325m^2 (89,610ft^2);
Site 2- two warehouses with 17,400m^2 (187,300ft^2); and,
Site 3- three warehouses with 75,685m^2 (814,700ft^2).

The development is planned to include a total of about 976 parking spaces as well as loading bays and trailer drop spaces within each site. The concept includes six accesses to Russell Road and a connection to Hunt Club Road (Street 1).

5.0 Forecasting

5.1 Development-Generated Traffic

5.1.1 Trip Generation

The proposed development is planned to be completed with three subareas consisting of:

Site 1- one warehouse with 8,325m^2 (89,610ft^2);
Site 2- two warehouses with 17,400m^2 (187,300ft^2); and,
Site 3- three warehouses with 75,685m^2 (814,700ft^2).

Trips generated by the proposed site development were estimated using *Trip Generation*, *10th Edition* (Institute of Transportation Engineers, Washington, 2017). Person trips were estimated (See **Table 3**) using an ITE Trip to Person Trip conversion factor of 1.28, consistent with the City of Ottawa TIA Guidelines.

Table 3: Person Trip Generation

Land Use[1]	Units[2]	Person Trips Generated[3]					
		AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Site 1							
Warehouse (ITE 150)	89.6	35	11	46	13	36	49
Site 2							
Warehouse (ITE 150)	187.3	47	14	61	17	47	64
Site 3							
Warehouse (ITE 150)	120.2	39	12	51	15	39	54
High-Cube Parcel Hub Warehouse (ITE 156)	694.5	470	469	939	631	297	928
Total Development Trip Generation Sites 1-3		591	506	1097	676	419	1095

Notes:
1. Trip Generation for the associated Land Use from *Trip Generation 10th Edition* (Institute of Transportation Engineers, Washington, 2017). Trips have been increased by 28% to account for 10% non-auto mode share and average vehicle occupancy of 1.15.
2. Units are 1,000 ft^2 of GFA.
3. Person trips per hour for peak hours.

The modal shares for the proposed development are anticipated to be generally consistent with the existing modal shares (See **Table 4**) outlined in the *2011 TRANS O-D Survey Report*, specific to the Hunt Club region which indicate the modal share values for the trips to/from and within the Hunt Club district. An increase to the auto driver share has been applied based on the location of the subject site, as the site is somewhat removed from significant residential development with minimal active transportation connections and transit service. The projected person trips by modal share for this full development are shown in **Table 4**.

Table 4: Person Trips by Modal Share

Travel Mode	Existing Modal Share	Target Modal Share	AM Peak			PM Peak		
			IN	OUT	TOT	IN	OUT	TOT
Site 1								
Person Trips			*35*	*11*	*46*	*13*	*36*	*49*
Auto Driver	60%	**70%**	**24**	**7**	**31**	**9**	**25**	**34**
Auto Passenger	15%	**15%**	5	2	7	2	5	7
Transit	15%	**10%**	4	1	5	1	4	5
Active Trips	10%	**5%**	2	1	3	1	2	3
Site 2								
Person Trips			*47*	*14*	*61*	*17*	*47*	*64*
Auto Driver	60%	**70%**	**33**	**10**	**43**	**11**	**33**	**44**
Auto Passenger	15%	**15%**	7	2	9	3	7	10
Transit	15%	**10%**	5	1	6	2	5	7
Active Trips	10%	**5%**	2	1	3	1	2	3
Site 3								
Person Trips			*509*	*481*	*990*	*646*	*336*	*982*
Auto Driver	60%	**70%**	**357**	**337**	**694**	**452**	**235**	**687**
Auto Passenger	15%	**15%**	76	72	148	97	50	147
Transit	15%	**10%**	51	48	99	65	34	99
Active Trips	10%	**5%**	25	24	49	32	17	49
Total Development								
Person Trips			*591*	*506*	*1097*	*676*	*419*	*1095*
Auto Driver	60%	**70%**	**414**	**354**	**768**	**472**	**293**	**765**
Auto Passenger	15%	**15%**	88	76	164	102	62	164
Transit	15%	**10%**	60	50	110	68	43	111
Active Trips	10%	**5%**	29	26	55	34	21	55

Full Buildout of the proposed development is estimated to generate 768 two-way vehicle trips during the AM peak hour and 765 two-way vehicle trips during the PM peak hour.

6.0 Analysis

6.1 Development Design

Conceptually, it is expected that pedestrian facilities will be provided between each building and the parking lots, to be reviewed at site plan for each site. New pedestrian walkways will be constructed, providing connectivity to Russell Road.

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 existing bus stops near the subject sites are described in **Section 4.1.3**.

Stops #3336 and 3339 are located in front of Buildings A and B. Stops #3335 and 3340 are less than 400m to Buildings C, D, and F. The distance between the stops and Building E is about 650m. Actual walking distance between exterior access doors and the transit stops will be measured and reviewed at site plan submission.

Each development block includes two connections to Russell Road to separate trucks and employees and have been aligned with opposing driveways where possible. Connections will be further reviewed at site plan.

Onsite turning paths of heavy vehicles and review of garbage collection and fire routes will also be reviewed at site plan.

6.2 Parking

The subject site is located in Area C on Schedule 1 and 1A of the City of Ottawa's ZBL. Minimum vehicular parking rates (0.8 / 100 m^2) and bicycle parking rates (1 / 100 m^2) for light industrial development are identified in the ZBL. The concept plan indicates sufficient vehicular parking within each of sites 1, 2, and 3, and the vehicular, accessible, and bicycle parking requirements for each building will be confirmed with the site plan submissions.

Minimum vehicle loading for light industrial are identified in the ZBL and indicate that for warehouse / light industrial uses, 1 space is required for buildings up to 9,999 m^2, 2 spaces are required for sites up to 24,999 m^2, and 3 spaces are required for sites over 25,000m^2. Each building exceeds these minimum requirements, and this will be confirmed at site plan submission.

6.3 Boundary Streets

Schedule 'B' of the City of Ottawa's Official Plan indicates the site is in an Urban Employment Area. Targets for pedestrian level of service (PLOS), bicycle level of service (BLOS), and truck level of service (TkLOS) for Russell Road and Hunt Club Road reflect those outlined for an arterial road located within an employment area in Exhibit 22 of the MMLOS guidelines. Since neither boundary street is identified as a transit priority corridor, the transit level of service (TLOS) has not been evaluated. The Segment PLOS, BLOS, and TkLOS and associated targets for Russell Road and Hunt Club Road are summarized in
Table 6. Details on the Segment MMLOS are included in **Appendix G**.

Table 6: Segment MMLOS Summary

Intersection	PLOS	BLOS	TkLOS
Russell Road	F	F	C
Target	**C**	**E**	**B**
Hunt Club Road	F	E	A
Target	**C**	**C**	**B**

The PLOS along both Russell Road and Hunt Club Road fronting the site is currently failing. Both streets have 80km/h posted speed limits fronting the site and more than 3,000 vehicles per day AADT. Even if sidewalk were installed, the highest attainable PLOS score for each roadway is D due to the roadway speed and volume. Hunt Club Road fronting the site currently only leads to the Highway 417 ramps and has no pedestrian destinations. If Russell Road in this area is urbanized in the future and a reduced operating speed of 60km/h (posted 50km/h) is achieved, the City could include 2m sidewalk with 2m boulevard to achieve the PLOS target.

The BLOS along both Russell Road and Hunt Club Road fronting the site is currently failing. Without physically separated bikeways, the highest attainable BLOS score on both roadways is E due to the high operating speed. Hunt Club Road fronting the site currently only leads to the Highway 417 ramps and has no cycling destinations. The addition of on-street bicycle lanes along Russell Road would achieve the City's BLOS target for that street. This is identified for the City's consideration pending funding.

The TkLOS along Russell Road fronting the site misses the target B. To achieve the target TkLOS of B, 3.7m wide lanes are required. The existing gravel shoulders are approximately 2.5m. The City may wish to consider paving an additional 0.5m on either side of the road.

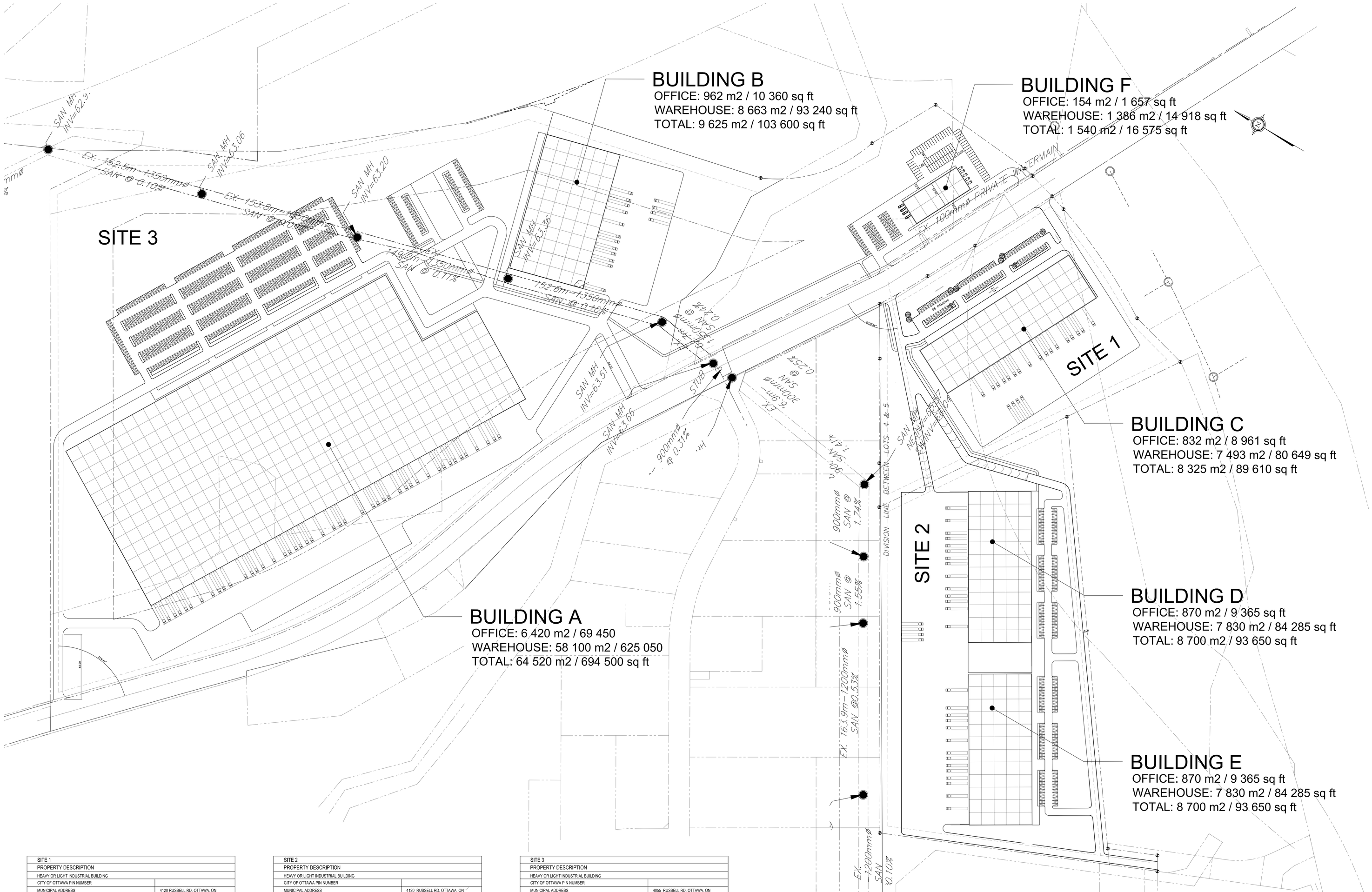
6.4 Access Intersections

The proposed development will be served by seven connections, six to Russell Road and one to Hunt Club Road. Each Russell Road driveway is intended to be STOP controlled with free flow traffic on Russell Road.

Signals are required at the connection to Hunt Club based on high approach intersection delay (See **Table 10**). The Street 1 connection to Hunt Club Road is proposed approximately 250m east of the Hydro Ottawa (signalized) access road. The location and ultimate functional design of this intersection have been agreed by the City of Ottawa in a tri-party agreement with NCC and Hydro Ottawa in 2016.

The driveway configurations with respect to design guidelines and requirements of the City's Private Approach By-law will be reviewed at site plan submission for each site, however the following are noted:

- The Transportation Association of Canada (TAC) outlines minimum clear throat lengths for driveways based on the land use, development size, and type of roadway. For the proposed building sizes, the clear throat requirements are:
    - 60m for driveways to Building A (60m is provided);
    - 30m for driveways to Sites 1 and 2 (30m is provided);



SITE 1		
PROPERTY DESCRIPTION		
HEAVY OR LIGHT INDUSTRIAL BUILDING		
CITY OF OTTAWA PIN NUMBER		
MUNICIPAL ADDRESS	4120 RUSSELL RD, OTTAWA, ON	
SITE INFORMATION		
LOT AREA:	46 652 m²	
LOT FRONTAGE:	195 m	
LOT DEPTH:	183 m /	
BUILDING INFORMATION		
BUILDING AREA:	8325m²	
BUILDING FLOOR AREA (GFA):	8325m²	
PROPOSED USE:	LIGHT INDUSTRIAL BUILDING	

ZONING TABLE	IH	
CITY OF OTTAWA ZONING BY-LAW No. 2008-250	REQUIRED	PROPOSED
MINIMUM LOT AREA	4,000m²	46 652 m²
MINIMUM LOT WIDTH	No minimum	249 m
FRONT YARD SETBACK	7.5m	55 m
MINIMUM INTERIOR SIDE YARD SETBACK	7.5m	23m
MINIMUM REAR YARD SETBACK	7.5m	69 m
MAXIMUM BUILDING HEIGHT	22m	9.15m
MAXIMUM FLOOR SPACE INDEX	2	.18
PARKING AREA	N/A	2 711 m²
LANDSCAPED AREA (19 670 m2 OF LOT AREA)	0% of parking area (Section 110) 0% of Lot	476 m2 of parking area 17.8 % of parking area 42% of Lot area
VEHICLE PARKING REQUIREMENTS (AREA C, SCHEDULE 1A)	.8 per 100m2 of GFA .83 spaces required	86 new SPACES

SITE 2		
PROPERTY DESCRIPTION		
HEAVY OR LIGHT INDUSTRIAL BUILDING		
CITY OF OTTAWA PIN NUMBER		
MUNICIPAL ADDRESS	4120 RUSSELL RD, OTTAWA, ON	
SITE INFORMATION		
LOT AREA:	74 718 m²	
LOT FRONTAGE:	198 m	
LOT DEPTH:	370 m /	
BUILDING INFORMATION		
BUILDING AREA:	17400m²	
BUILDING FLOOR AREA (GFA):	17400m²	
PROPOSED USE:	LIGHT INDUSTRIAL BUILDING	

ZONING TABLE	IH	
CITY OF OTTAWA ZONING BY-LAW No. 2008-250	REQUIRED	PROPOSED
MINIMUM LOT AREA	4,000m²	74 718 m²
MINIMUM LOT WIDTH	No minimum	201 m
FRONT YARD SETBACK	7.5m	17.48 m
MINIMUM INTERIOR SIDE YARD SETBACK	7.5m	53.4m
MINIMUM REAR YARD SETBACK	7.5m	18.38 m
MAXIMUM BUILDING HEIGHT	22m	9.15m
MAXIMUM FLOOR SPACE INDEX	2	.23
PARKING AREA	N/A	4943.12m²
LANDSCAPED AREA (26 188 m2 OF LOT AREA)	0% of parking area (Section 110) 0% of Lot	844.29 m2 of parking area 17 % of parking area 35 % of Lot area
VEHICLE PARKING REQUIREMENTS (AREA C, SCHEDULE 1A)	.8 per 100m2 of GFA 126 spaces required	156 new SPACES

SITE 3		
PROPERTY DESCRIPTION		
HEAVY OR LIGHT INDUSTRIAL BUILDING		
CITY OF OTTAWA PIN NUMBER		
MUNICIPAL ADDRESS	4055 RUSSELL RD, OTTAWA, ON	
SITE INFORMATION		
LOT AREA:	283 698 m²	
LOT FRONTAGE:	1 072 m	
LOT DEPTH:	337 m /	
BUILDING INFORMATION		
BUILDING AREA:	75 685 m²	
BUILDING FLOOR AREA (GFA):	75 685m²	
PROPOSED USE:	LIGHT INDUSTRIAL BUILDING	

ZONING TABLE	IH	
CITY OF OTTAWA ZONING BY-LAW No. 2008-250	REQUIRED	PROPOSED
MINIMUM LOT AREA	4,000m²	283 698 m²
MINIMUM LOT WIDTH	No minimum	942 m
FRONT YARD SETBACK	7.5m	48.68 m
MINIMUM INTERIOR SIDE YARD SETBACK	7.5m	14.5m
MINIMUM REAR YARD SETBACK	7.5m	7.5 m
MAXIMUM BUILDING HEIGHT	22m	9.15m
MAXIMUM FLOOR SPACE INDEX	2	.26
PARKING AREA	N/A	21 604.30 m²
LANDSCAPED AREA (137 008.67 m2 OF LOT AREA)	0% of parking area (Section 110) 0% of Lot	1 950.70 m2 of parking area 9 % of parking area 48 % of Lot area
VEHICLE PARKING REQUIREMENTS (AREA C, SCHEDULE 1A)	.8 per 100m2 of GFA 601 spaces required	734 new SPACES

01 / A101 SITE PLAN
1 = 2000

No.	Date	Émis pour / Object
	2020-02-03	
	2020-03-02	
	2020-03-04	

Ingénieur - Mécanique - Électricité

Ingénieur - Structure

Architecte paysagiste

PROJET | PAYSAGE

Client

AVENUE 31

Architecte / Architect

figurr collectif d'architectes

Sceau / Seal

Note:

L'entrepreneur doit vérifier toutes les informations et informations sur le site et aviser immédiatement l'architecte de toutes erreurs ou omissions.

Contractor shall verify all information and dimensions on site and immediately report any errors or omissions to the architect.

Projet / Project

NATIONAL CAPITAL BUSINESS PARK

Titre / Title

SITE PLAN

Dessiné par / Drawn by	No. projet / Project number
Author	1959
Vérifié par / Verified by	No. dessin / Drawing number — Révision
Checker	0
Échelle / Scale	A101
1:2000	
Date	
2020-03-04	

APPENDIX D

TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

1. Description of Proposed Development

Municipal Address	4055 Russell Road (Site 3B National Capital Business Park)
Description of Location	The site is located in the planned National Capital Business Park
Land Use Classification	Industrial Development
Development Size (units)	-
Development Size (m^2)	3100 m^2 (33370 SF)
Number of Accesses and Locations	2 Site Accesses
Phase of Development	
Buildout Year	2030 (Assumed)

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?		✓
Is the development in a Design Priority Area (DPA) or Transit-oriented Development (TOD) zone?*		✓

**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 are 80 km/hr or greater?	✓	
Are there any horizontal/vertical curvatures on a boundary street limits sight lines at a proposed driveway?		✓
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)?		✓
Is the proposed driveway within auxiliary lanes of an intersection?		✓
Does the proposed driveway make use of an existing median break that serves an existing site?		✓
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?		✓
Does the development include a drive-thru facility?		✓

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?		✓
Does the development satisfy the Location Trigger?		✓
Does the development satisfy the Safety Trigger?	✓	

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 E

Transit Network Information

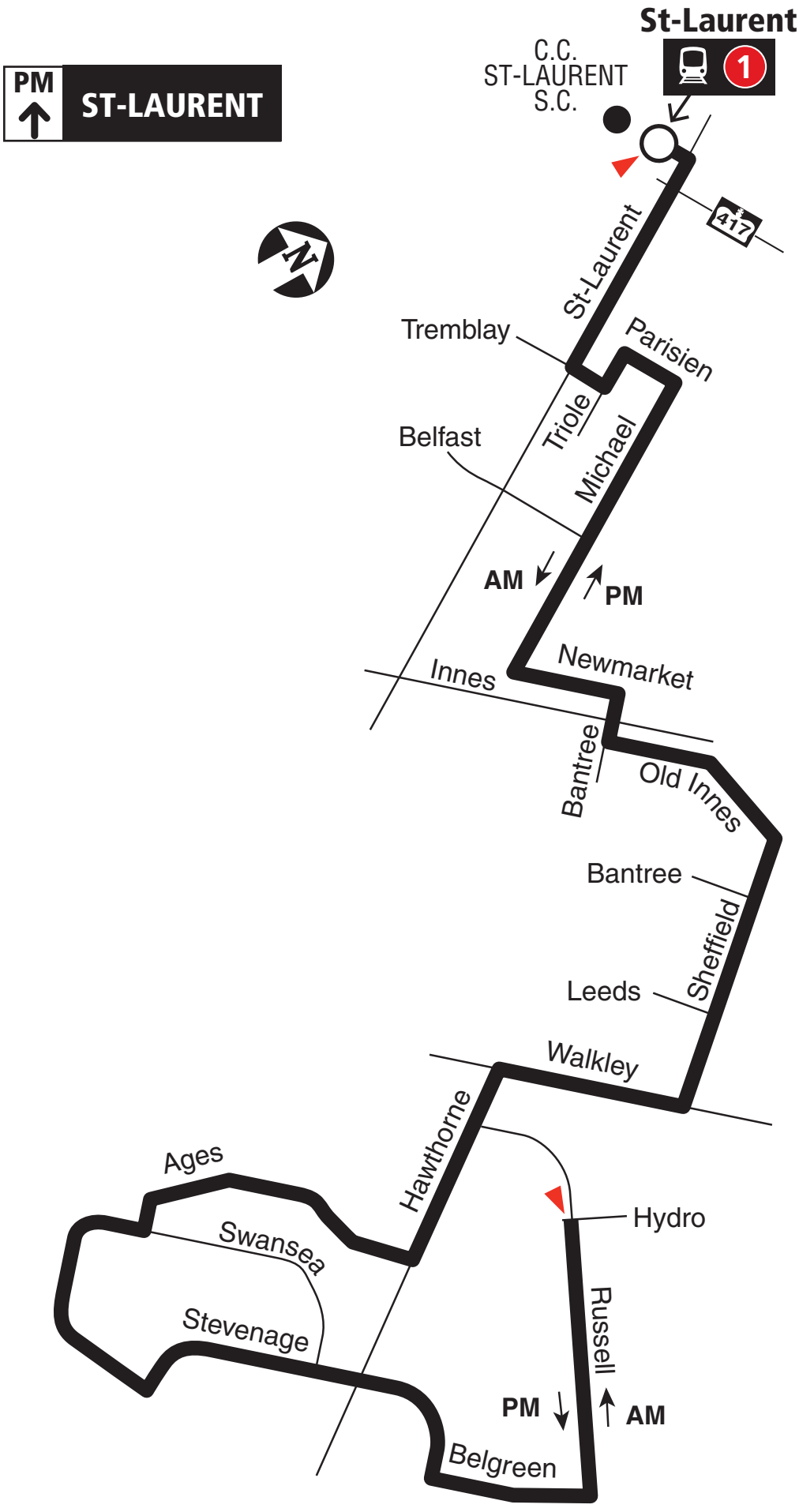
47

HAWTHORNE
ST-LAURENT

Local

Monday to Friday / Lundi au vendredi

Peak periods only
Périodes de pointe seulement



Station

Timepoint / Heures de passage

2019.06

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

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

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

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

Security / Sécurité **613-741-2478**

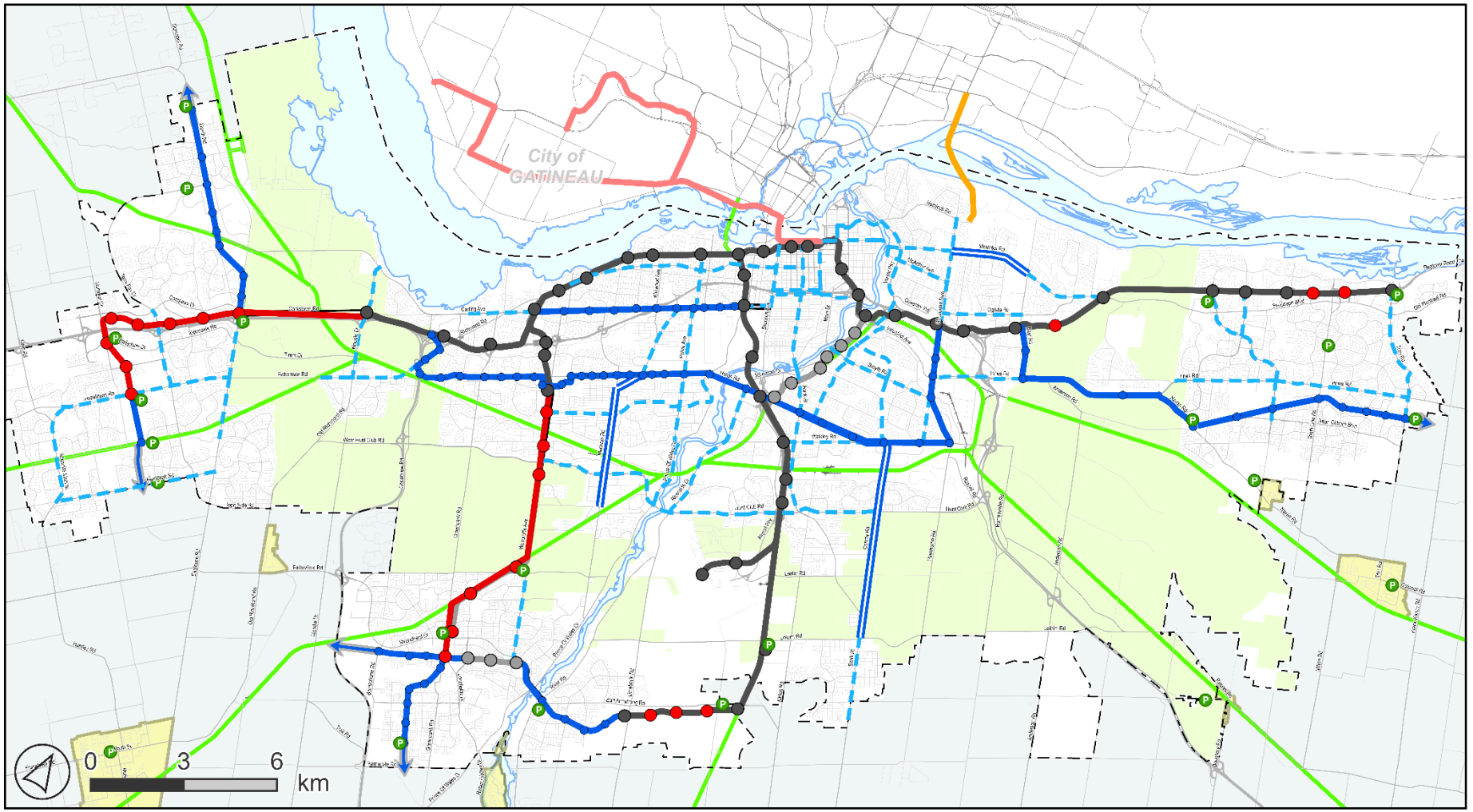
Effective June 25, 2017
En vigueur 25 juin 2017

OC Transpo

INFO 613-741-4390
octranspo.com

APPENDIX F

2025 Transport Mobility Plan



Existing Rapid Transit

- O-Train
- Transitway
- Existing Bus Lanes
- O-Train Station
- Transitway Station

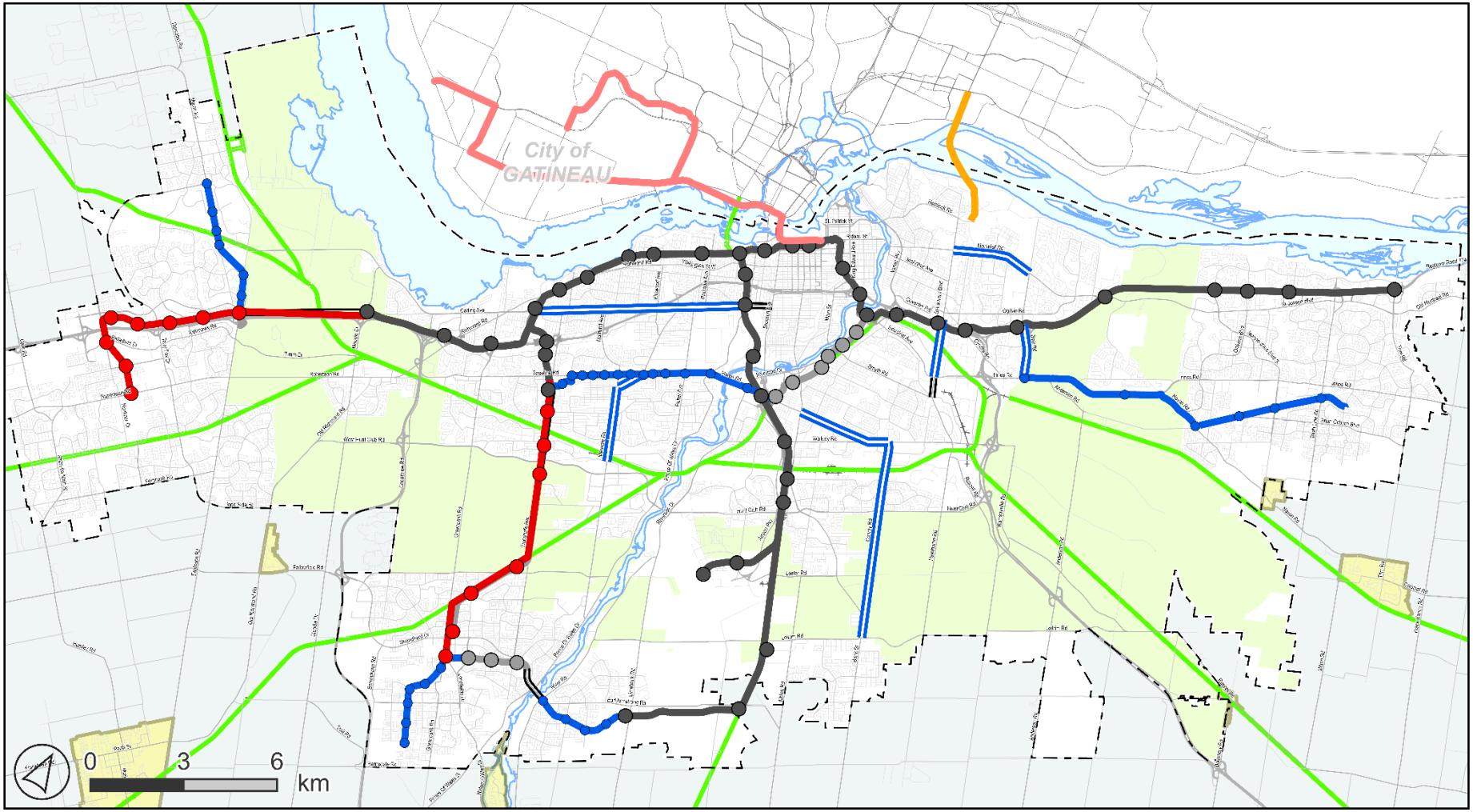
Transit Projects

- O-Train
- Transitway
- Continuous Bus Lanes
- Transit Priority Corridor
- Gatineau Tramway (Delivered by Others)
- Future Corridor

- Transportation and Infrastructure Corridor
- New Interprovincial Crossing (Delivered by Others)
- New O-Train Station
- New Transitway Station
- Park and Ride

- Village
- Existing Urban Boundary

Needs Based Transit Network



Existing Rapid Transit

- O-Train
- Transitway
- Existing Bus Lanes
- O-Train Station
- Transitway Station

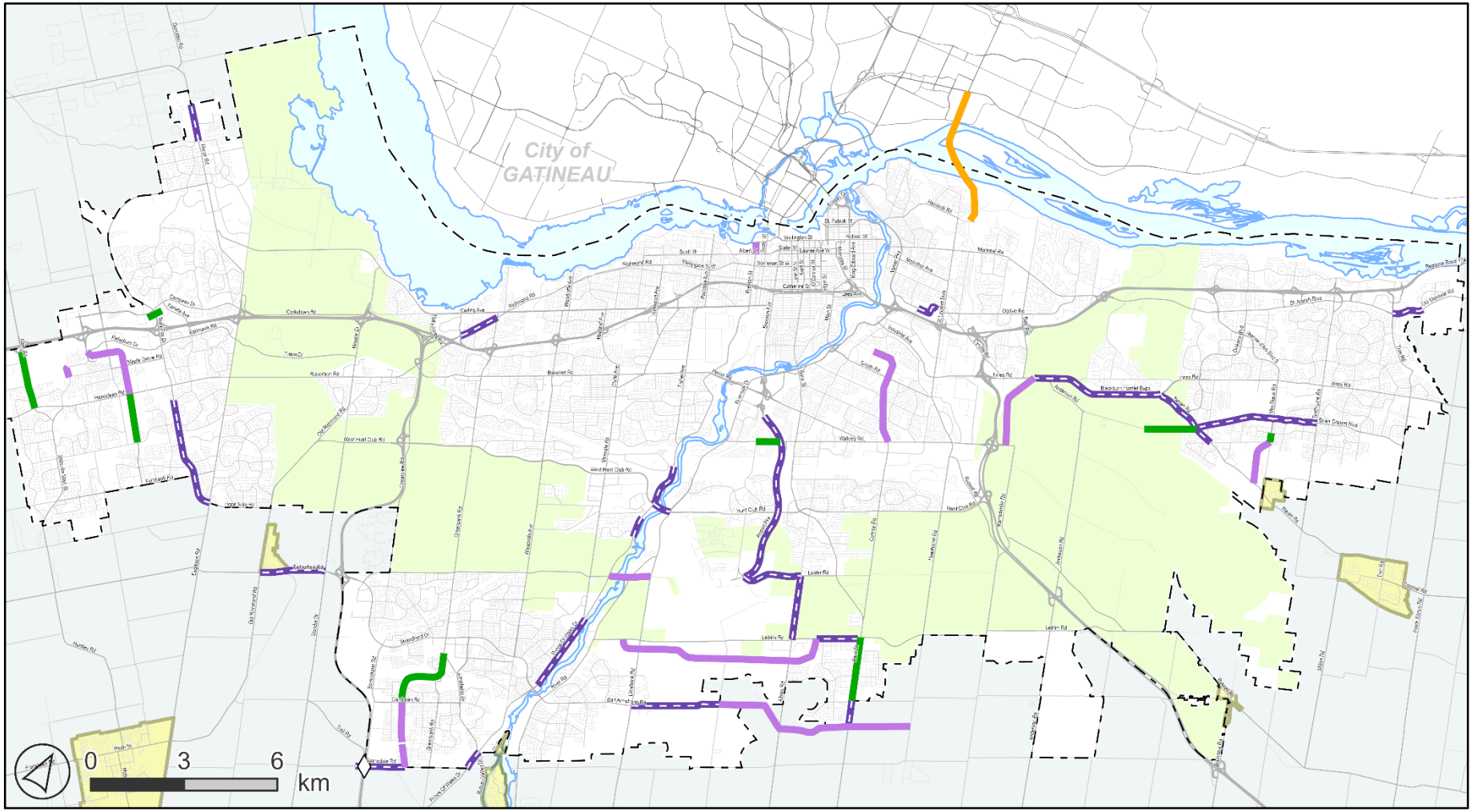
Transit Projects

- O-Train
- Transitway
- Continuous Bus Lanes
- Gatineau Tramway (Delivered by Others)

- Transportation and Infrastructure Corridor
- New Interprovincial Crossing (Delivered by Others)
- New O-Train Station
- New Transitway Station

- Village Boundaries
- Existing Urban Boundary

Priority Transit Network



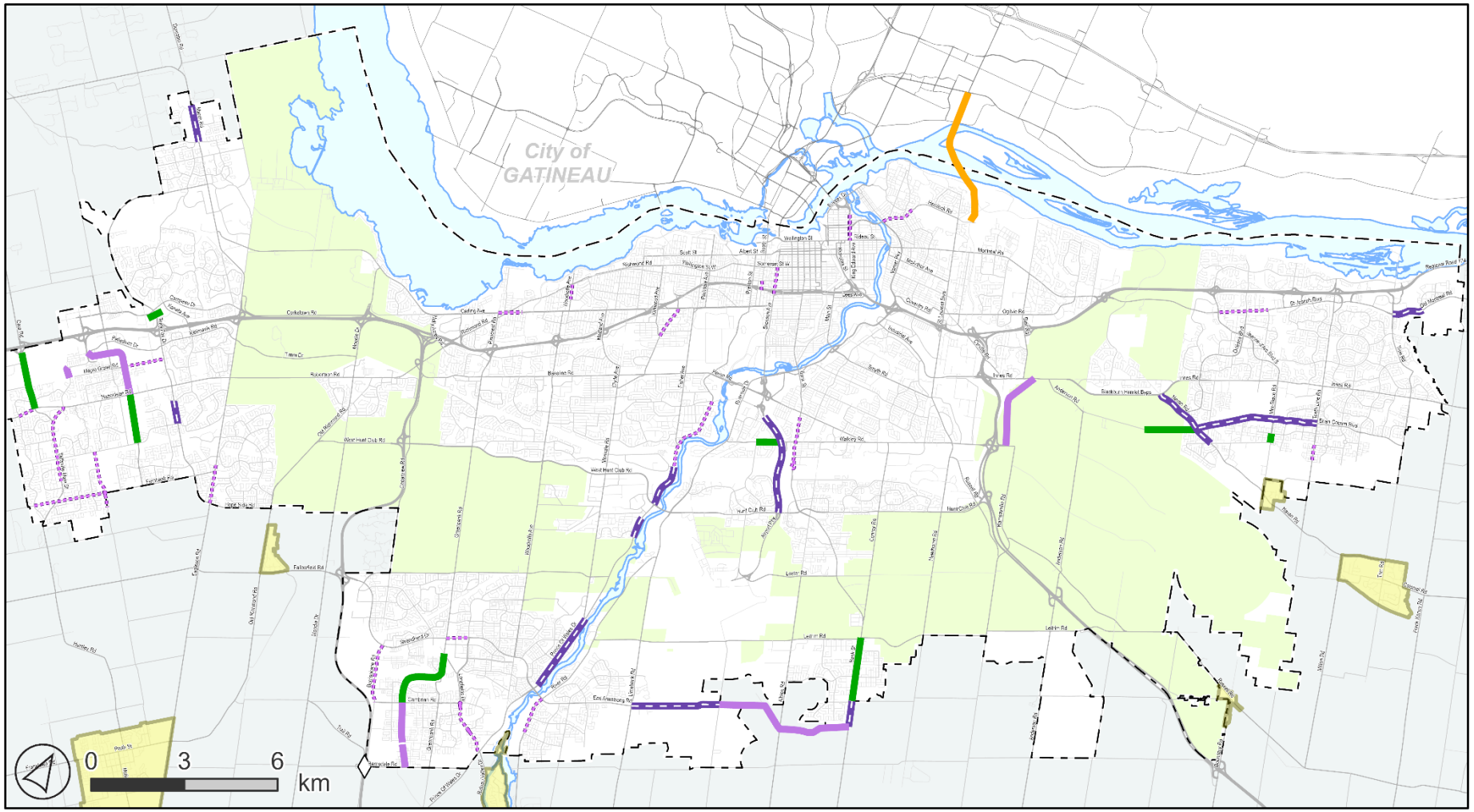
Roads

- Road Widening
- New Road
- Committed Projects

- New Interchange (Delivered by Others)
- New Interprovincial Crossing (Delivered by Others)

- Village Boundaries
- Existing Urban Boundary

Needs Based Road Network



Roads

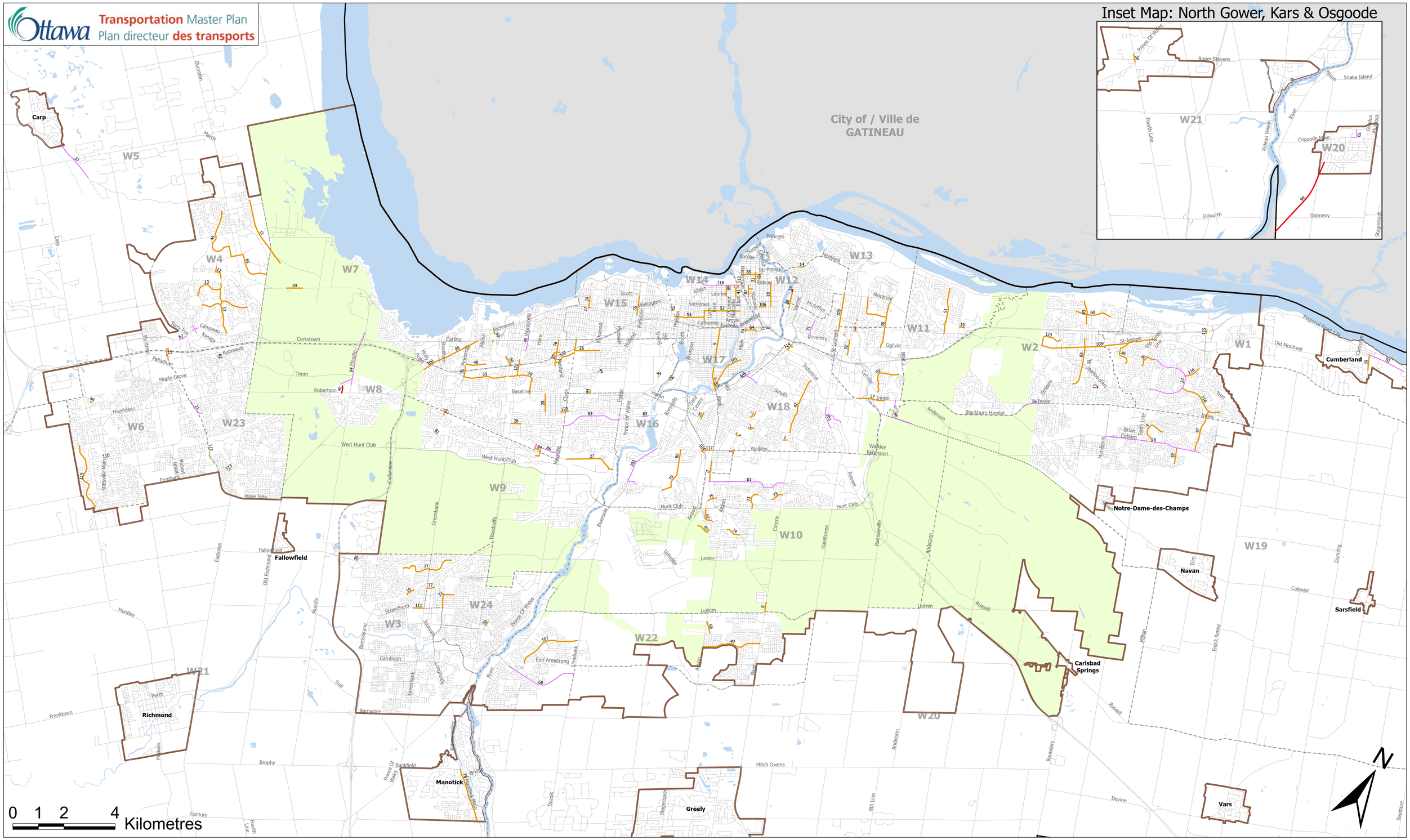
- Road Widening
- New Road
- Committed Projects

- New Interchange (Delivered by Others)
- New Interprovincial Crossing (Delivered by Others)

- Road Urbanization and Mainstreet Improvements
- Village Boundaries
- Existing Urban Boundary

Priority Road Network

Ottawa **Transportation** Master Plan
Plan directeur **des transports**



TMP Cycling Projects Proposed Priority

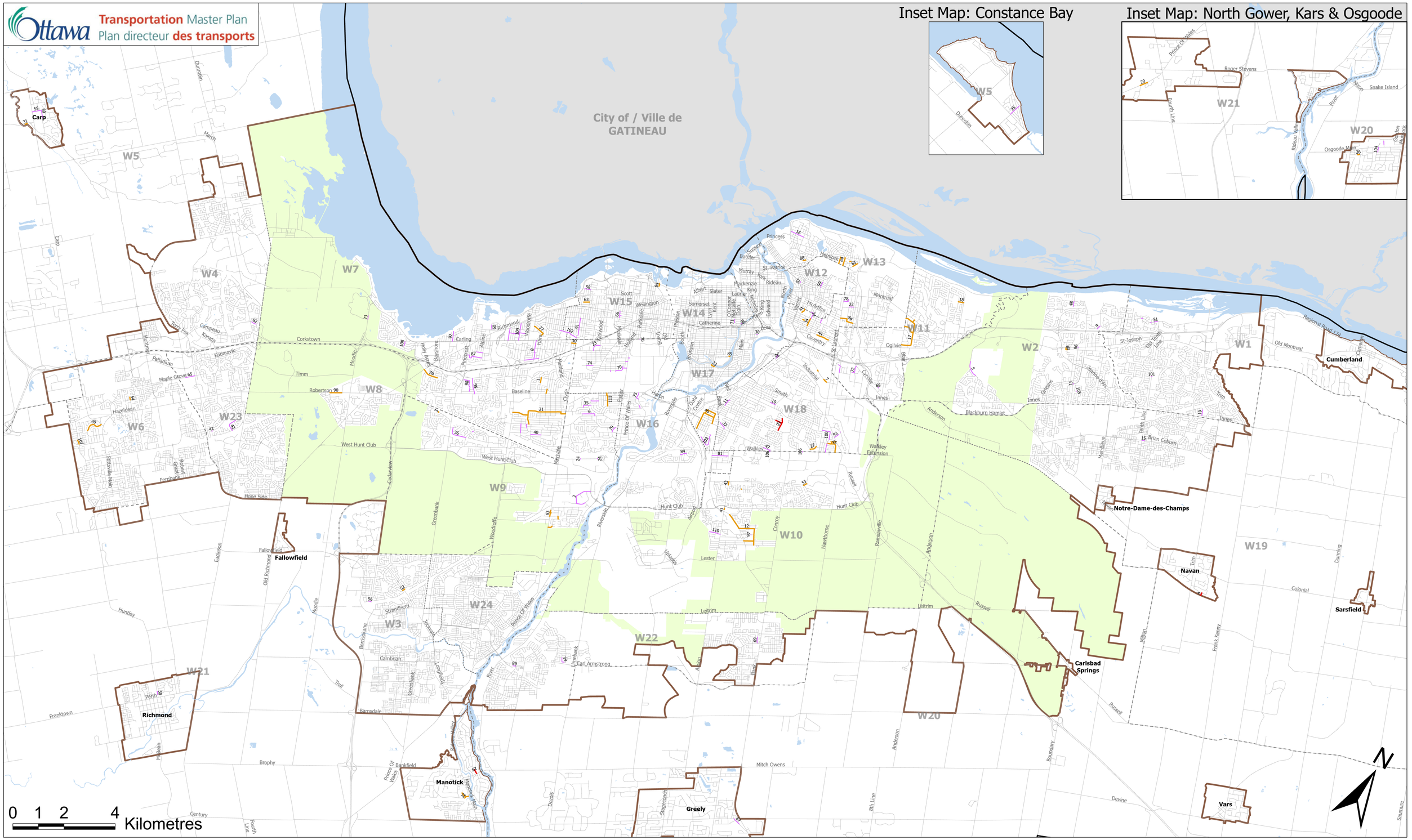
- First Phase
- First Phase - Completed
- Later Phase
- Greenbelt
- Urban Area
- Wards
- Village Boundaries
- City Boundary

#	Project Name
1	Albion Rd North
2	Alta Vista East-West Route
3	Alta Vista North-South Route
4	Aquaview Drive
5	Aviation Pathway Connections
6	Bank St Cycling
7	Bank St Over Rail
8	Bank St South
9	Bank St, Lansdowne North
10	Barrhaven VIA Pathway (Jockvale Rd – Antler-Dolan underpass)
11	Beachburg Subdivision Rail Corridor Pathway
12	Beaverbrook - Kanata North Pathway
13	Beaverbrook Rd, Knudson Dr, Weslock Way, Walden Dr, Teron Rd, Kanata Ave and Campeau Dr
14	Beechwood Ave
15	Belcourt Blvd to Frank Bender St
16	Brian Coburn Blvd
17	Byron Ave and Churchill Ave
18	Byward Market to Somerset St East
19	Canotek Rd
20	Carling Ave, Beachburg Rail Underpass
21	Carp River Pathway
22	Carp River Pathway under Hwy 417
23	Charlemagne Blvd
24	Churchill Ave Cycling
25	Clover St
26	Clyde Ave N and Laperriere Ave
27	Colonnade Rd N
28	Cordova St and Meadowlands Dr
29	Crestview-Tanglewood Rail Crossing
30	Crestway Dr
31	Cumberland St and Murray St East
32	Cummings Ave
33	Cummings Bridge Underpass
34	D'Aoust Ave and Bridle Path Dr
35	Dazé St
36	Den Haag Dr and Bathgate Dr
37	Donald B Munro Dr and Old Carp Rd
38	Duford Dr, Prestone Dr and Tompkins Ave
39	Dunning Rd
40	Echowoods Park
41	Elgin St Cycling
42	Elmvale-Canterbury Neighbourhood Bikeway
43	Emerald Woods O-Train Pathway Connection
44	Experimental Farm Path Connections
45	Fairlawn Ave and Woodroffe Ave
46	Fallowfield Rd – Forager St Pathway
47	Findlay Creek Dr
48	Fitzgerald Rd
49	Flamborough Way and Innovation Dr
50	Fourth Line Rd
51	Garneau Park to Carrière St
52	Gilmour St
53	Gladstone Ave and Percy St Cycling
54	Hartwell Locks Accessible Crossing
55	Holland Ave Cycling
56	Innes Rd Eastbound
57	Innes Rd over Highway 417
58	Iris St and Navaho Dr
59	Iris St West
60	Jeanne d'Arc Blvd North
61	Johnston Rd
62	Kanata Ave and Campeau Dr
63	Laurel St Bridge
64	Lees Ave to Hawthorne Ave
65	Legget Dr, Solandt Rd and Hines Rd
66	Leitrim Station Pathway
67	Leslie Park-Banner Rd Rail Crossing
68	Limebank Station Pathway
69	Lincoln Fields Crossings, Carling Ave and Richmond Rd
70	Logan Farm Dr and Osgoode Main St
71	Lola St
72	Longfields Dr and Berrigan Dr
73	Lorry Greenberg Dr
74	Main St Southbound Cycling Link
75	Maitland Ave Cycling
76	Maitland Ave Cycling Connections
77	Malvern Dr, Foxfield Dr, and Highbury Park Dr
78	Manotick Main St / Bridge St
79	McCarthy Rd and Paul Anka Dr
80	McCarthy Rd Cycling
81	McClellan Rd Pathway Connectivity
82	Meadowbrook Rd
83	Meadowlands Dr
84	Moodie Dr
85	Murray St West
86	Nepean Creek Pathway
87	Nicholas St and Daly Ave Cycling
88	North River Rd
89	O'Connor St
90	O-Train Crossing at Hwy 417
91	Ogilvie Rd
92	Old Montreal Rd
93	Orléans Blvd
94	Osgoode Link Pathway Extension
95	Pinecrest Rd and Greenbank Rd
96	Prescott-Russell Recreational Trail
97	Provence Ave and Portobello Blvd
98	Queensview Dr
99	Richmond Rd
100	Richmond Rd over Hwy 417
101	Riverdale Ave and Neighbourhood Connections
102	Riverside Dr
103	Russell Rd, St-Laurent Blvd and Lancaster Rd
104	Sawmill Creek Connection from Walkley Rd
105	Smyth Rd and Rideau River Eastern Pathway Connection
106	Somerset St East Cycling
107	Spratt Rd Cycling
108	St-Joseph Blvd Cycling
109	St-Laurent Blvd Cycling
110	Stittsville Trans Canada Trail Crossing
111	Strandherd Dr Eastbound
112	Sussex Dr
113	Terry Fox Dr Pathway
114	Tremblay Road to Terminal Avenue
115	Trim Road Bridge
116	Valin St and Watters Rd
117	Walkley Rd
118	Wellington St
119	West Ridge Dr
120	Withrow Ave and Capilano Dr
121	Woodroffe Ave Cycling
122	Woodward Dr
123	Youville Dr

For further details, please refer to the TMP active aransportation project list or GeoOttawa (https://maps.ottawa.ca/geoottawa/)

March, 2025

Transportation Master Plan
Plan directeur des transports



TMP Pedestrian Projects Proposed Priority

- First Phase
- First Phase - Completed
- Later Phase
- Greenbelt
- Urban Area
- Wards
- Village Boundaries
- City Boundary

#	Project Name
1	Ainsley Park and Albany Dr Pathway and Sidewalk
2	Auriga Dr and Antares Dr Sidewalk
3	Banner Rd Pedestrian Crossing
4	Barnwell Cres Pathway
5	Bearbrook Rd Pedestrian Facilities
6	Beaver Ridge Sidewalk
7	Belfast Rd Sidewalk
8	Benjamin Ave, Iroquois Rd, Parkhurst Blvd Sidewalks
9	Bilberry Creek Crossing
10	Billings Ave Sidewalk
11	Blossom Dr Sidewalk
12	Blossom Park Sidewalks
13	Boyer Rd and Orléans Blvd Pedestrian Crossing
14	Brant St and Eve St Sidewalks
15	Brian Coburn Blvd Sidewalk
16	Buena Vista Rd Sidewalk

#	Project Name
17	Cardinal Heights Sidewalks
18	Casey Ave Sidewalk
19	Celeste Way Sidewalk
21	Cityview Sidewalks
22	Clarke Ave Sidewalk
23	Coldrey Ave Sidewalk
24	Colonnade Rd Pedestrian Crossing
27	Dakota Ave Sidewalk
28	Dale Park Pathway
29	Delmar Dr and Playfair Dr Sidewalks
30	Doheny St Sidewalk
31	Donald B. Munro Dr Sidewalk
32	Eastman Ave and Potter Dr Sidewalks
33	Echo Dr Pedestrian Facilities
34	Edith Ave and Glynn Ave Sidewalk
35	Eleanor Dr, Wallford Way, Trillium Ave Sidewalk

#	Project Name
36	Elvaston Ave and Craig Henry Dr Sidewalk
37	Evans Blvd Sidewalk
38	Evelyn Ave Sidewalk
39	Eye Bright Cres Sidewalk
40	Fieldrow St, Sullivan Ave, Brook Ln Sidewalks
41	Gil-O-Julien Pathway
42	Glen Cairn Pedestrian Improvements
43	Greenboro Pedestrian Improvements
44	Hardy Ave and Gardenvale Rd Sidewalk
45	Hawthorne Park Sidewalks
46	Heron Park Sidewalks
47	Heron Rd Pedestrian Facilities
48	Hiawatha Park Rd Sidewalk
49	Hobin St Sidewalk
50	Huntley Rd Pedestrian Facilities

#	Project Name
51	Jeanne d'Arc Blvd Pedestrian Improvements
52	Jockvale Rd Pedestrian Crossing
53	Johnston Rd to Swansea Cres Pathway
54	Johnwoods St Pathway
55	Juanita Ave Sidewalk
56	Kinetic Way Pathway
57	Kipp St Sidewalk
58	Lanark Ave Sidewalk
59	Langstaff Dr Sidewalk
60	Lincoln Heights Rd Sidewalk
61	London Terr and Mart Circ Sidewalk
62	Long Island Rd Pedestrian Improvements
63	Madison Ave Sidewalk
64	Manor Park Sidewalks
65	Maple Grove Rd Ped Improvements

#	Project Name
66	Mayfair Ave S and Java St Sidewalk
67	Meadow Dr Pedestrian Facilities
68	Meadowbrook Rd Pedestrian Crossings
69	Meadowlilly Rd Sidewalk
70	Meadowvale Park Sidewalks
71	Metcalfe St Sidewalk
72	Michael St, Parisien St and Labrie Ave Sidewalks
73	Moodie Dr Sidewalk
74	Morisset Ave Sidewalk
75	Morley Blvd and Sanford Ave
76	Nanaimo Dr Sidewalk
77	Neepawa Ave and Iroquois Rd Sidewalk
78	Noranda Ave Sidewalk
79	Normandy Cres Sidewalk
80	Notre-Dame St Sidewalk
81	Notting Hill Ave Sidewalk

#	Project Name
82	Penfield Dr Sidewalk
83	Pineglen Pedestrian Improvements
84	Provost Dr Pedestrian Facilities
85	Queen Elizabeth Driveway, Lansdowne Park Entrance
86	Queen Elizabeth Drwy at Argyle Ave Crossing
87	Queensway Terrace North Sidewalks
88	Rideau Terr Sidewalk
89	Riverview Park & Ride Pathway
90	Robertson Rd Sidewalk
91	Roosevelt Ave Sidewalk
92	Scrivens St Sidewalk
93	Sheffield Glen Park Pedestrian Improvements
94	Slidell St Sidewalk
95	Southwood Dr Sidewalk
96	St-Joseph Blvd at Boyer Rd Pedestrian Crossing

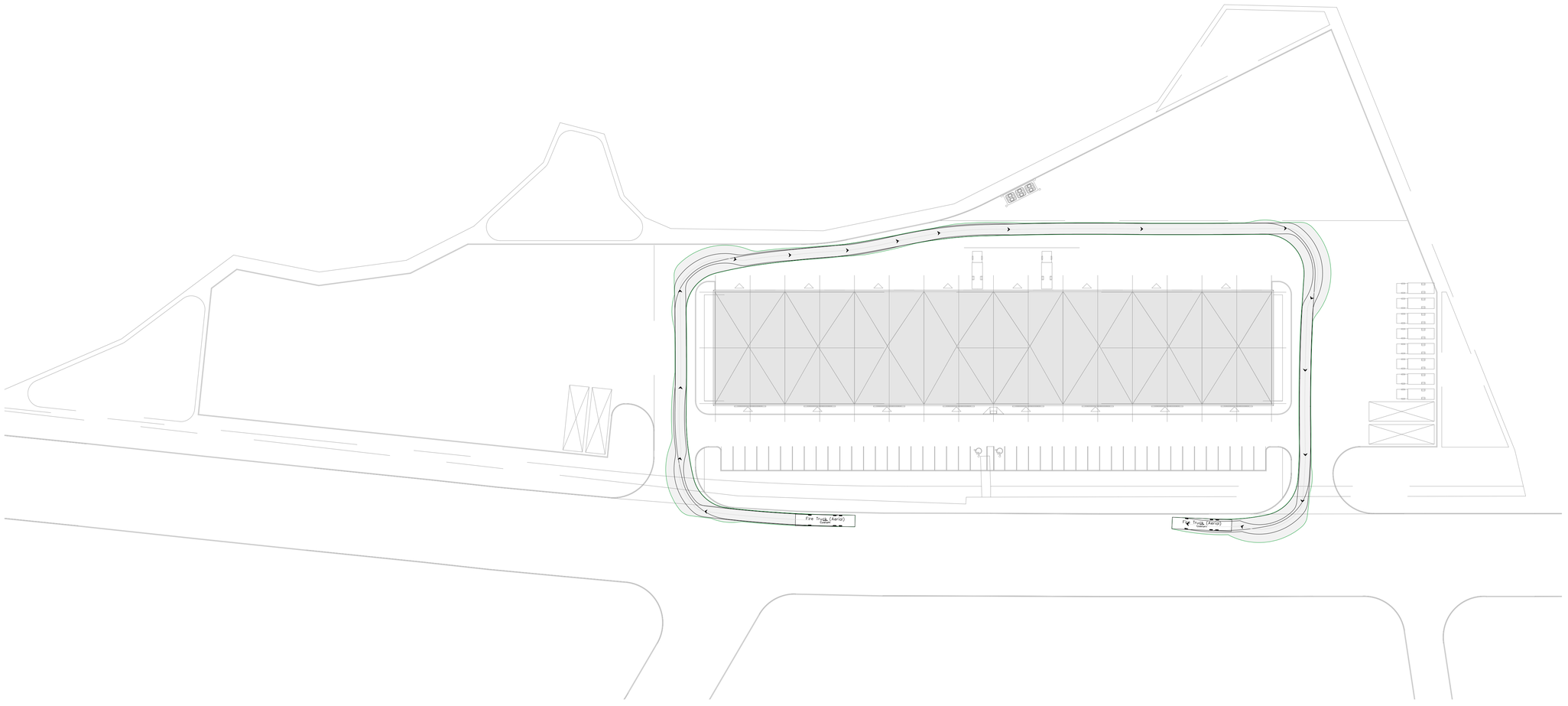
#	Project Name
97	St. Bernard Crossing
98	Stanton Rd Sidewalk
99	Ste-Anne Ave Sidewalk
100	Tawney Rd Sidewalk
101	Tenth Line Rd Pedestrian Crossing
102	Tillbury Ave Sidewalk
103	Traverse Dr Sidewalk
105	Viseneau Dr Pedestrian Crossing
106	Walkley Rd Pedestrian Crossings
107	West Ridge Dr Sidewalk
108	Westdale Ave Sidewalk
109	Woodpark Connectivity
110	Wyldewood St Sidewalk
111	Zena St, Sunnycrest Dr, Barlyn Ave Sidewalks

For further details, please refer to the TMP active transportation project list or GeoOttawa: https://maps.ottawa.ca/geoottawa/

March, 2025

APPENDIX G

Vehicle Maneuverability Diagrams



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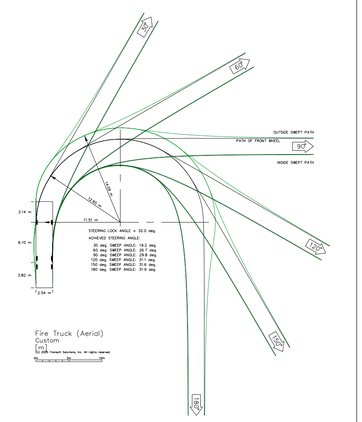
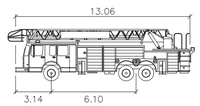
FOR REVIEW
NOT TO BE USED FOR CONSTRUCTION

SWEEP PATH



VEHICLE PROFILE



Fire Truck (Aerial)

meters

Width	: 2.54
Track	: 2.41
Lock to Lock Time	: 6.0
Steering Angle	: 32.0

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

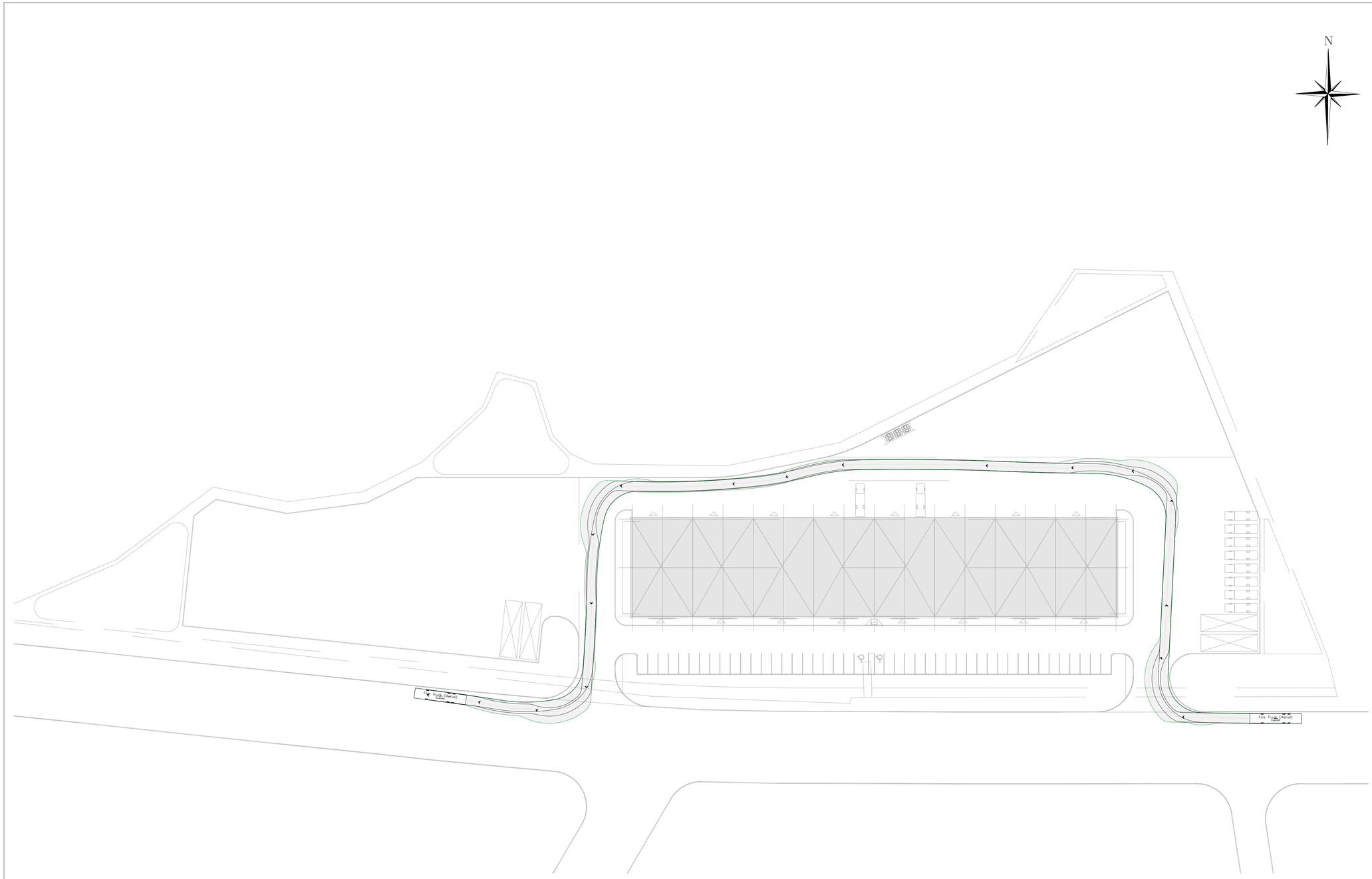
4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

VEHICLE MANEUVERING ANALYSIS
AERIAL FIRE TRUCK

CROZIER
CONSULTING ENGINEERS
211 Yonge Street
Suite 600
Toronto, ON, M5B 1M4
416-477-3392 T
www.cfcrozier.ca
info@cfcrozier.ca

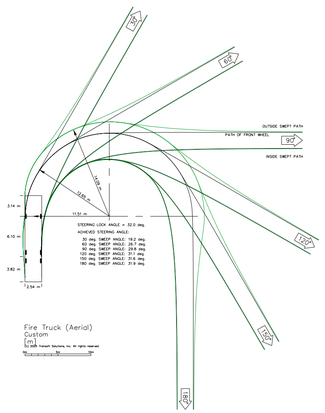
Drawn By	Design By	Project	
I.A.		1909-5877	
Check By	Check By	Scale	Drawing
P.A.	A.H.	1:500	T300



FOR REVIEW

NOT TO BE USED FOR CONSTRUCTION

SWEEP PATH



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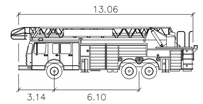

Fire Truck (Aerial)

	meters
Width	: 2.54
Track	: 2.41
Lock to Lock Time	: 6.0
Steering Angle	: 32.0

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

VEHICLE MANEUVERING ANALYSIS
AERIAL FIRE TRUCK

CROZIER
CONSULTING ENGINEERS

211 YONGE STREET
SUITE 600
TORONTO, ON, M5B 1M4
416-477-3392 T
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
I.A.			1909-5877
Check By	Check By	Scale	Drawing
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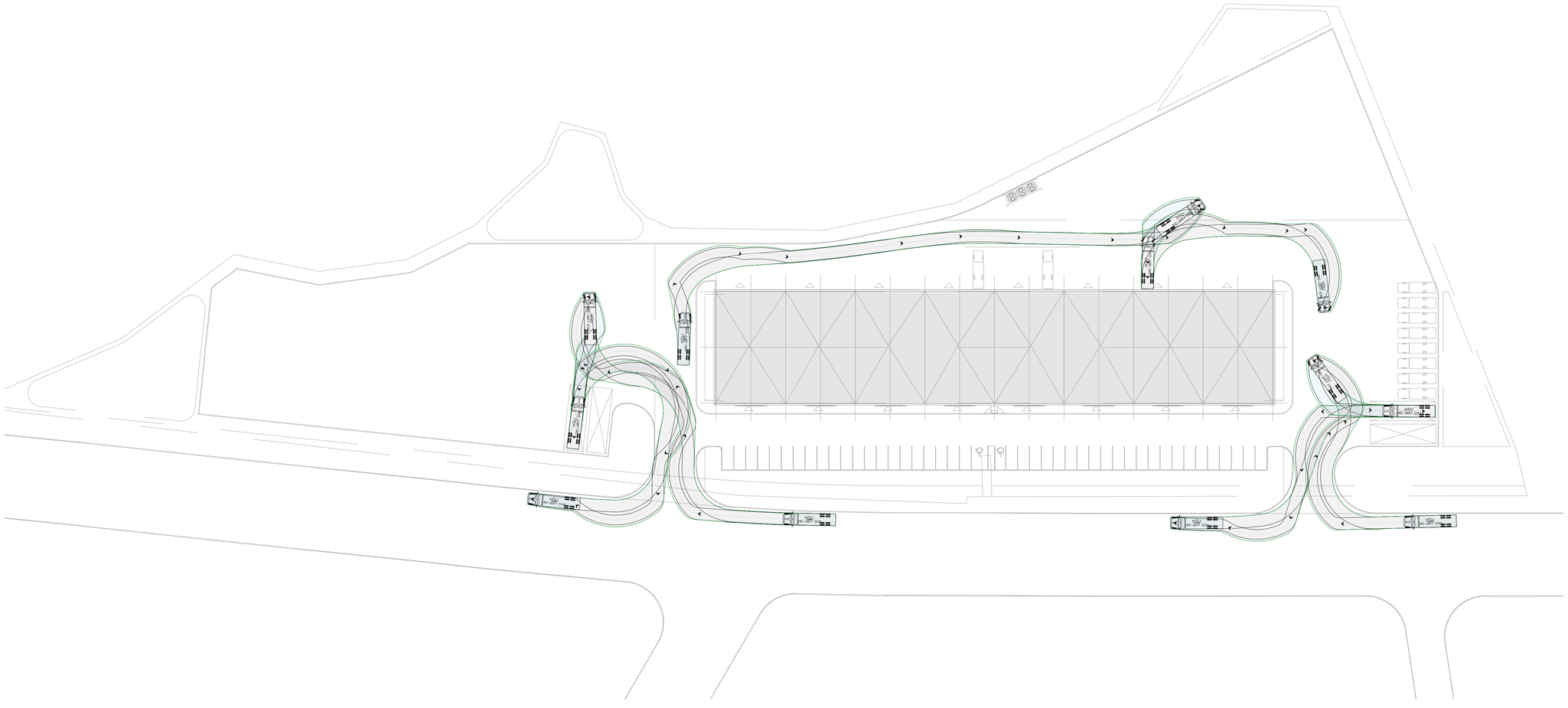

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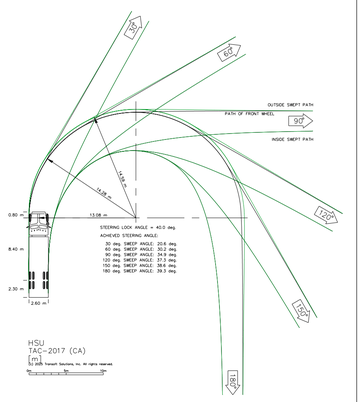
FOR REVIEW

NOT TO BE USED FOR CONSTRUCTION

SWEEP PATH



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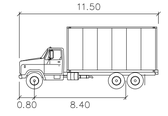

HSU

	meters
Width	: 2.60
Track	: 2.60
Lock to Lock Time	: 6.0
Steering Angle	: 40.0

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

VEHICLE MANEUVERING ANALYSIS
HEAVY SINGLE UNIT TRUCK

CROZIER CONSULTING ENGINEERS
211 YONGE STREET
SUITE 600
TORONTO, ON, M5B 1M4
416-477-3392 T
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By	Design By	Project	
I.A.			1909-5877
Check By	Check By	Scale	Drawing
P.A.	A.H.	1:500	T302

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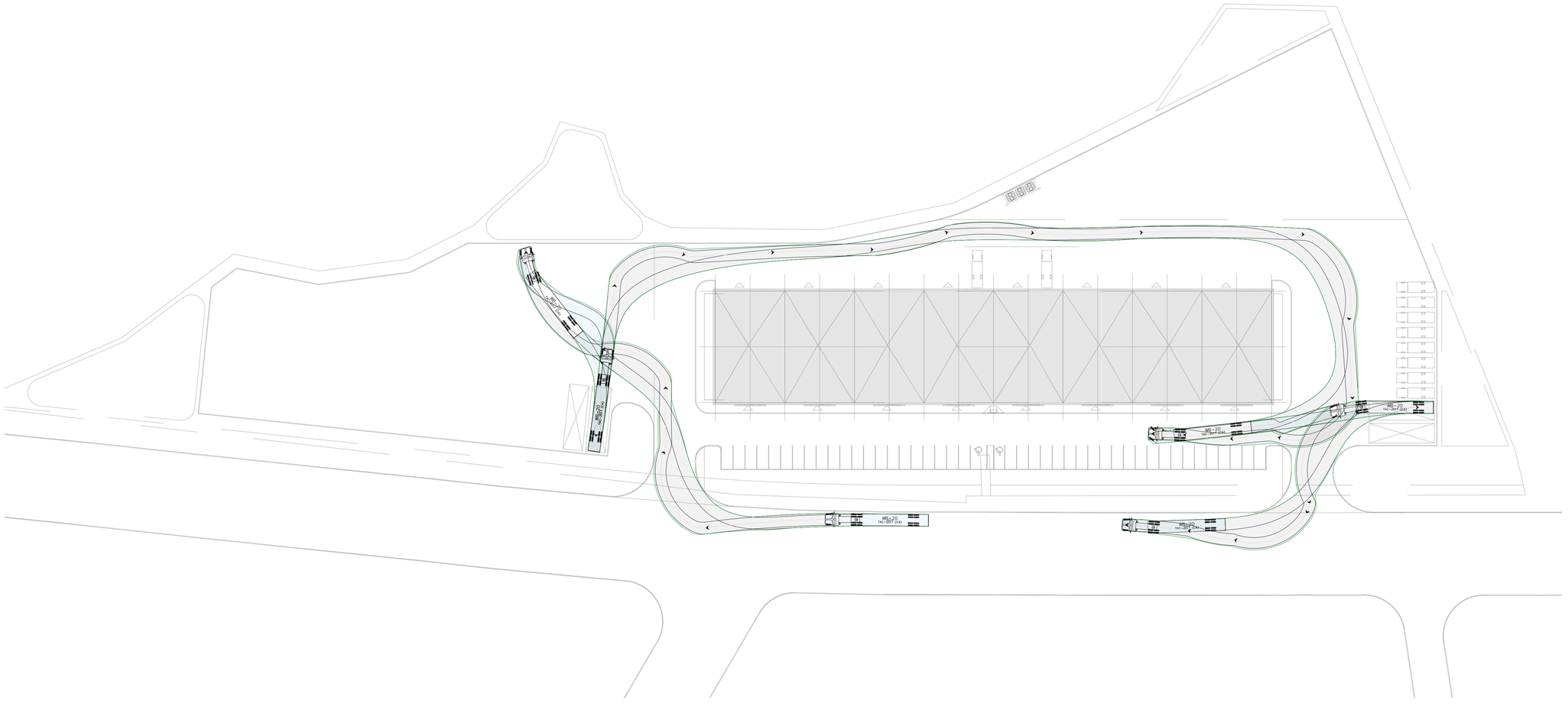
FOR REVIEW
NOT TO BE USED FOR CONSTRUCTION



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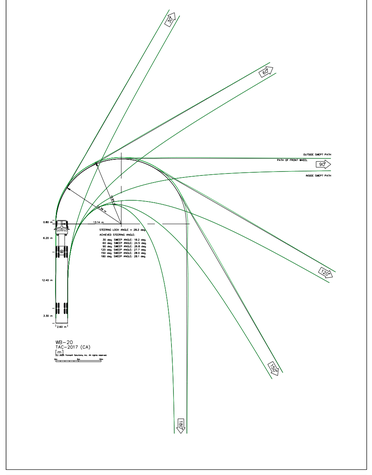
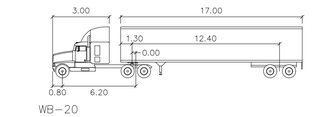


VEHICLE PROFILE



WB-20

meters

Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 28.2
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

VEHICLE MANEUVERING ANALYSIS
WB-20 TRUCK

CROZIER CONSULTING ENGINEERS
211 YONGE STREET
SUITE 600
TORONTO, ON, M5B 1M4
416-477-3392 T
WWW.CFCROZIER.CA
INFO@CFCROZIER.CA

Drawn By: I.A.	Design By:	Project: 1909-5877	
Check By: P.A.	Check By: A.H.	Scale: 1:500	Drawing: T303

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SCALE: 1:500

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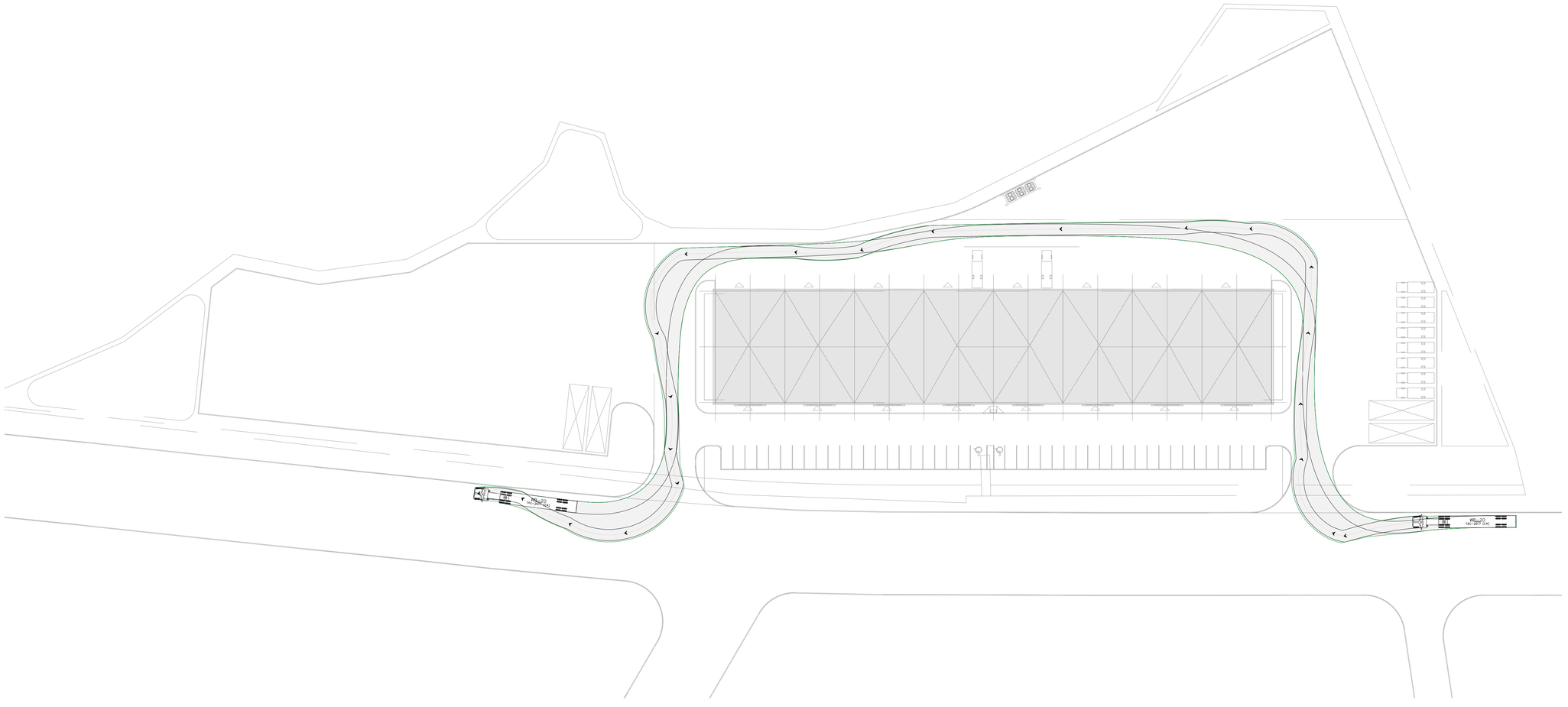
FOR REVIEW

NOT TO BE USED FOR CONSTRUCTION



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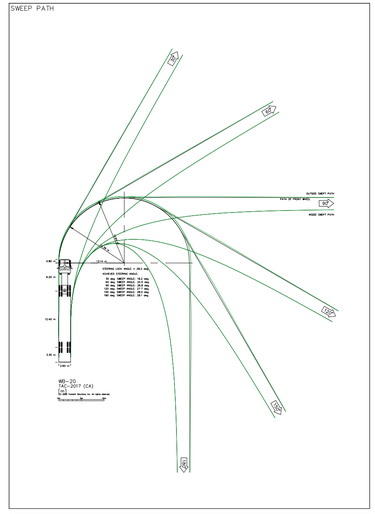
SWEEP PATH



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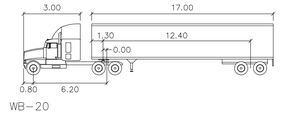

WB-20

meters

Tractor Width	: 2.60	Lock to Lock Time	: 6.0
Trailer Width	: 2.60	Steering Angle	: 28.2
Tractor Track	: 2.60	Articulating Angle	: 70.0
Trailer Track	: 2.60		

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

VEHICLE MANEUVERING ANALYSIS
WB-20 TRUCK

CROZIER CONSULTING ENGINEERS
211 YONGE STREET
SUITE 600
TORONTO, ON, M5B 1M4
416-477-3392 T
WWW.CFCROZIER.CA
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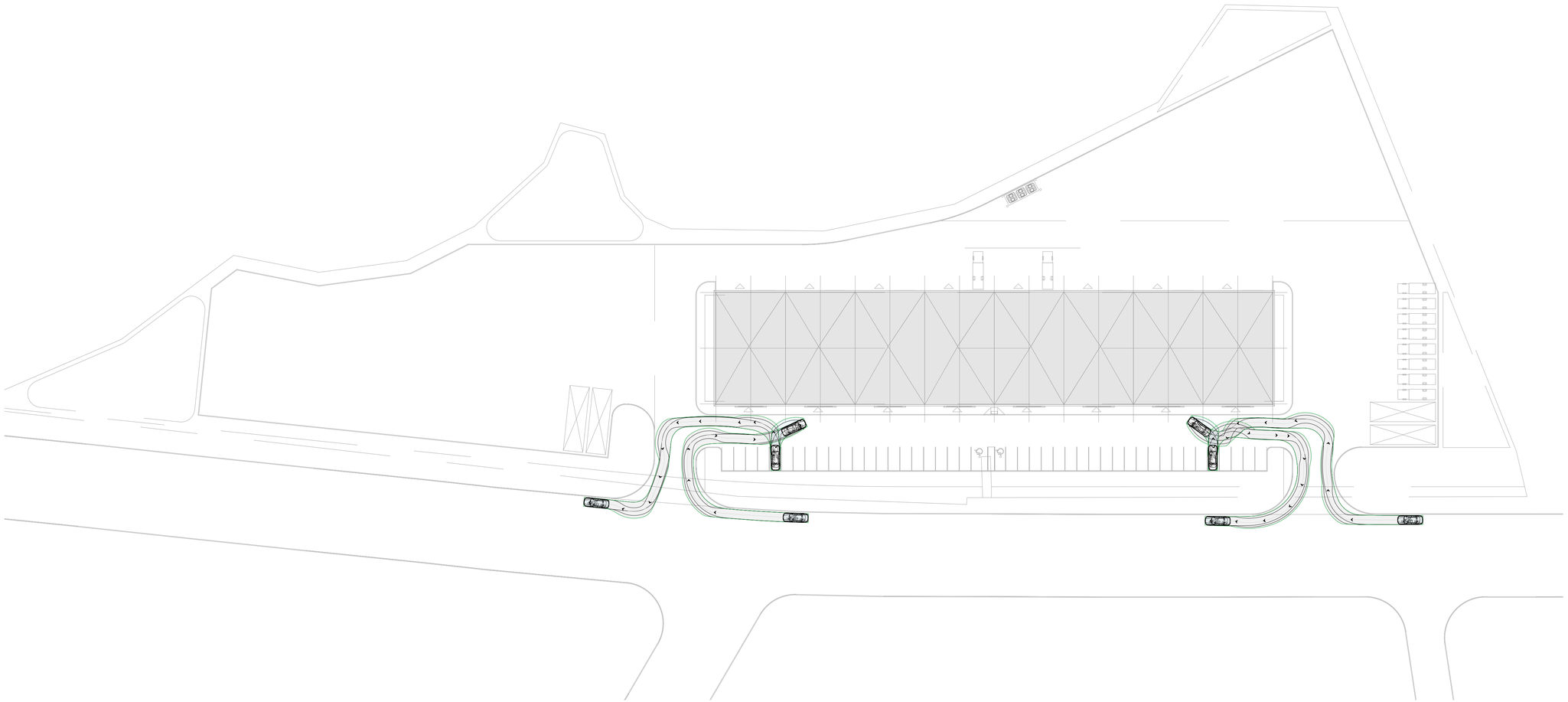
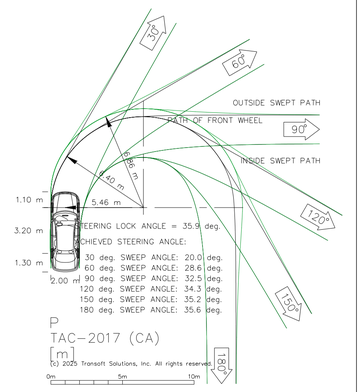
Drawn By: I.A.	Design By:	Project: 1909-5877	
Check By: P.A.	Check By: A.H.	Scale: 1:500	Drawing: T304



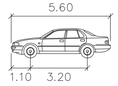
FOR REVIEW

NOT TO BE USED FOR CONSTRUCTION

SWEEP PATH



VEHICLE PROFILE



P

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

No.	ISSUE	DATE: MM/DD/YYYY
1	ISSUED FOR SUBMISSION	12/05/2025

Project

4055 RUSSELL ROAD (SITE 3B)
CITY OF OTTAWA

Drawing

VEHICLE MANEUVERING ANALYSIS
PASSENGER VEHICLE

CROZIER
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I.A.			1909-5877
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P.A.	A.H.	1:500	T305