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Proposed Residential Block
Abbot's Run – Block 13

Transportation Impact Assessment

Proposed Residential Block
Abbott's Run – Block 13

Transportation Impact Assessment

Prepared By:

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

Dated: June 2025

Novatech File: 122039
Ref: R-2025-040

NOVATECH
Engineers, Planners & Landscape Architects

June 25, 2025

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

Attention: **Mr. Mike Giampa**
Senior Transportation Engineer, Infrastructure Applications

Dear Mr. Giampa:

Reference: **Abbott's Run – Block 13**
Transportation Impact Assessment
Novatech File No. 122039

We are pleased to submit the following Transportation Impact Assessment (TIA), in support of a Site Plan application within Block 13 of the Abbott's Run Subdivision, for your review and signoff. The structure and format of this report is in accordance with the City of Ottawa Transportation Impact Assessment Guidelines (June 2023).

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

Yours truly,

NOVATECH

Trevor Van Wiechen, P.Eng.
Project Engineer | Transportation

Suite 200, 240 Michael Cowpland Drive, Ottawa ON K2M 1P6 Tel: 613.254.9643 Fax: 613.254.5867 www.novatech-eng.com

TIA Plan Reports

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

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

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

CERTIFICATION

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

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

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

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

Dated at Ottawa (City) this 25 day of June, 2025 .

Name: Brad Byvelds
(Please Print)

Professional Title: P. Eng. - Senior Project Manager

B. Byvelds

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

Office Contact Information (Please Print)	
Address:	240 Michael Cowpland Drive
City / Postal Code:	Ottawa, ON K2M 1P6
Telephone / Extension:	613-254-9643 ext. 286
E-Mail Address:	b.byvelds@novaetch-eng.com

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EXECUTIVE SUMMARY

This Transportation Impact Assessment (TIA) has been prepared in support of a Site Plan application for residential Block 13 within Phase 2 of the Abbott's Run subdivision. The subject site is currently occupied by undeveloped land.

The subject block is located in the southeast corner of the future Robert Grant Avenue/Cranesbill Road roundabout and is surrounded by the following:

- Cranesbill Road and future residential uses to the north,
- Monorail Road and future residential uses to the south,
- Future residential uses to the east, and
- Robert Grant Avenue and future residential uses to the west.

A CTS/TIS dated November 2016 and revised in May 2020 was prepared in support of Zoning By-law Amendment and Draft Plan of Subdivision applications for the Kizell Lands (now know as Abbott's Run) subdivision. This application proposed 288 Single Detached Dwellings, 469 Townhouse Dwellings, 878 Multi-Family Housing Dwellings (Low Rise), 360 Apartment Units (High Density), 760 Apartments, 351,334 ft² of Retail (Mixed Use), a 580 Student Elementary School, and a 375 Parking Space Parking and Ride. An addendum reviewing proposed alterations to Phases 2 to 4 of the Draft Plan and any transportation related impacts associated with the proposed revisions was completed in January 2025.

The subject site, Block 13 within Phase 2 of the Abbott's Run subdivision, proposes 124 stacked townhouse units within six buildings. The residential block proposes access to Cranesbill Road and Monorail Road. The proposed development is anticipated to be completed in one phase, with buildout occurring in 2027.

The City of Ottawa's Official Plan locates the subject site within the Suburban (West) Transect, with a 'Corridor - Minor' designation on Schedule B5.

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

Access Design

- The proposed accesses adhere to all other provisions of the City's Private Approach By-law.

- The available corner clearance is met at both the Cranesbill Road and Monorail Road accesses.

- Cranesbill Road and Monorail Road are anticipated to not have horizontal and/or vertical curvatures or objects obstructing sightlines within proximity of the proposed accesses. No sight line concerns are identified at either access.

Forecasting

- The proposed development is estimated to generate 51 person trips (including 24 vehicle trips) during the AM peak hour, and 51 person trips (including 25 vehicle trips) during the PM peak hour.

Development Design

- On-site pathways will be provided between the main building entrances and sidewalks on Cranesbill Road, Robert Grant Boulevard, and Monorail Road.

- Bicycle parking for the development will be in accordance with the City's *Zoning By-Law* (ZBL). A total of 62 bicycle parking spaces will be provided within the subject site with bike racks being provided throughout the site.

- All required TDM-supportive design and infrastructure measures in the TDM checklist are met.

- Garbage collection will occur within the development along Street 1 near the accesses to Cranesbill Road and Monorail Road. The vehicular access and drive aisle will form the fire route for the subject site.

Parking

- As part of the adjacent subdivision works, the proponent has proposed a reduced parking ratio for stacked townhouses. A total of 136 vehicle parking spaces are proposed in accordance with the proposed zoning.

- A total of 62 bicycle parking spaces are proposed, meeting the requirements of the Zoning By-law.

- One accessible Type A visitor parking space is provided.

Boundary Street Design

- Robert Grant Avenue does not meet the target pedestrian level of service (PLOS). As the design of Robert Grant Avenue was recently approved and is currently under construction, no mitigation measures are identified.

- All boundary streets meet the target bicycle level of service (BLOS).

- Robert Grant Avenue meets the target truck level of service (TkLOS). Cranesbill Road and Monorail do not have a target TkLOS but achieve a TkLOS B.

Transportation Demand Management

- At this time, the proponent does not agree to implement additional TDM measures within the proposed development. However, it is noteworthy that a reduced parking ratio of 1.1 spaces per unit (combined tenant and visitor) is being sought. The proposed parking reduction will encourage tenants to use non-auto modes of transportation.

1.0 SCREENING

1.1 Introduction

This Transportation Impact Assessment (TIA) has been prepared in support of a Site Plan application for residential Block 13 within Phase 2 of the Abbott's Run subdivision. The subject site is currently occupied by undeveloped land.

The subject block is located in the southeast corner of the future Robert Grant Avenue/Cranesbill Road roundabout and is surrounded by the following:

- Cranesbill Road and future residential uses to the north,
- Monorail Road and future residential uses to the south,
- Future residential uses to the east, and
- Robert Grant Avenue and future residential uses to the west.

An aerial of the vicinity around the subject site is provided in **Figure 1**.

Figure 1: View of the Subject Site

1.2 Proposed Development

A CTS/TIS dated November 2016 and revised in May 2020 was prepared in support of Zoning By-law Amendment and Draft Plan of Subdivision applications for the Kizell Lands (now know as Abbott's Run) subdivision. This application proposed 288 Single Detached Dwellings, 469 Townhouse Dwellings, 878 Multi-Family Housing Dwellings (Low Rise), 360 Apartment Units (High Density), 760 Apartments, 351,334 ft² of Retail (Mixed Use), a 580 Student Elementary School, and a 375 Parking Space Parking and Ride. The Draft Plan of subdivision was approved in July 2021 and the final signed draft plan is included in **Appendix A**. An addendum reviewing proposed alterations to Phases 2 to 4 of the Draft Plan and any transportation related impacts associated with the proposed revisions was completed in January 2025.

The subject site, Block 13 within Phase 2 of the Abbott's Run subdivision, proposes 124 stacked townhouse units within six buildings. The residential block proposes access to Cranesbill Road and Monorail Road. The proposed development is anticipated to be completed in one phase, with buildout occurring in 2027.

The City of Ottawa's Official Plan locates the subject site within the Suburban (West) Transect, with a 'Corridor - Minor' designation on Schedule B5.

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

1.3 Screening Form

The City's *2023 TIA Guidelines* identify 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, which is included in **Appendix B**. The trigger results are as follows:

- Trip Generation Trigger – The development is expected to generate a net additional 60 peak hour person trips, however it is not expected to generate a net additional 75 vehicle trips; further assessment is **required** based on this trigger.
- Location Triggers – The development is not located in a Hub, PMTSA, or Design Priority Area; further assessment is **not required** based on this trigger.
- Safety Triggers – The development proposes access within 150m of a roundabout; further assessment is **required** based on this trigger.

2.0 SCOPING

2.1 Existing Conditions

The study area roadways and intersections are not currently constructed. For the purposes of this report, the existing conditions reflects the designs.

2.1.1 Roadways

All roadways within the study area are yet to be constructed as part of the greater Abbott's Run subdivision. All roadways within the study area will fall under the jurisdiction of the City of Ottawa.

Robert Grant Avenue is a north-south arterial roadway that extends from Fernbank Road in the south and Abbott Street East in the north. Within the vicinity of the subject development, Robert

Grant Avenue has a two-lane undivided urban cross-section with a posted speed limit of 60 km/h. A sidewalk and cycle track is provided on both sides of the road.

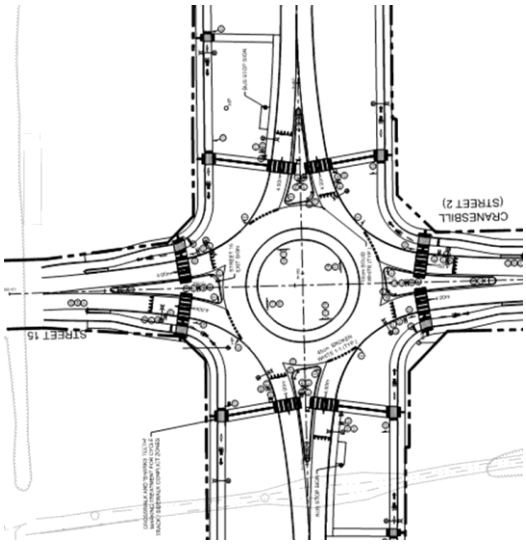
Cranesbill Road is an east-west major collector roadway that extends from Robert Grant Avenue in the west and Abbott Street East in the east. Within the vicinity of the subject development, Cranesbill Road has a two-lane undivided urban cross-section with a posted speed limit of 30 km/h.

Monorail Road is an east-west local roadway that extends from Robert Grant Avenue in the west and Blackbend Terrace in the east. Within the vicinity of the subject development, Monorail Road has a two-lane undivided urban cross-section with a posted speed limit of 30 km/h.

2.1.2 Intersections

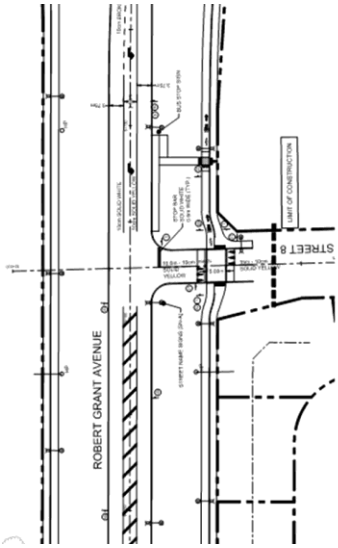
Robert Grant Avenue/Cranesbill Road

- Four-legged roundabout intersection
- Northbound and Southbound Approaches (Robert Grant Avenue): one all-movement shared lane
- Eastbound Approach (Street 15): one all-movement shared lane
- Westbound Approach (Cranesbill Road): one all-movement shared lane
- Pedestrian crossover (PXO) Type D on all approaches



Robert Grant Avenue/Monorail Road

- Three-legged side street stop control intersection
- Northbound Approach (Robert Grant Avenue): one shared all-movement lane
- Southbound Approach (Robert Grant Avenue): one left turn lane and one through lane
- Westbound Approach (Monorail Road): one shared all-movement lane



2.1.3 Driveways

A review of adjacent driveways along the boundary roads are provided as follows:

Cranesbill Road, North Side:
- 12 driveways to single-detached units

Cranesbill Road , South Side:
- 7 driveways to single-detached units

Monorail Road, North Side:
- 19 driveways to townhouse units

Monorail Road, South Side :
- 11 driveways to townhouse units

2.1.4 Pedestrian and Cycling Facilities

Sidewalks are provided on both sides of Robert Grant Avenue, Cranesbill Road, and Monorail Road.

Robert Grant Avenue is part of the Cross-Town Bikeway Network. The Trans Canada Trail south of Abbott Street is also part of the Cross-Town Bikeway Network. Cycle tracks are provided on both sides of Robert Grant Avenue.

2.1.5 Transit

There are no existing transit stops within walking distance of the proposed residential block. Nearby transit stops will be constructed with the completion of Robert Grant Avenue and Cranesbill Road in addition to the park and ride that will be constructed as part of Phase 5 of the Abbott's Run subdivision.

2.1.6 Area Traffic Management

There are no Area Traffic Management (ATM) studies within the study area that have been completed or are currently in progress. Traffic calming measures will be provided at all internal streets within the adjacent Abbott's Run subdivision.

2.1.7 Existing Traffic Volumes

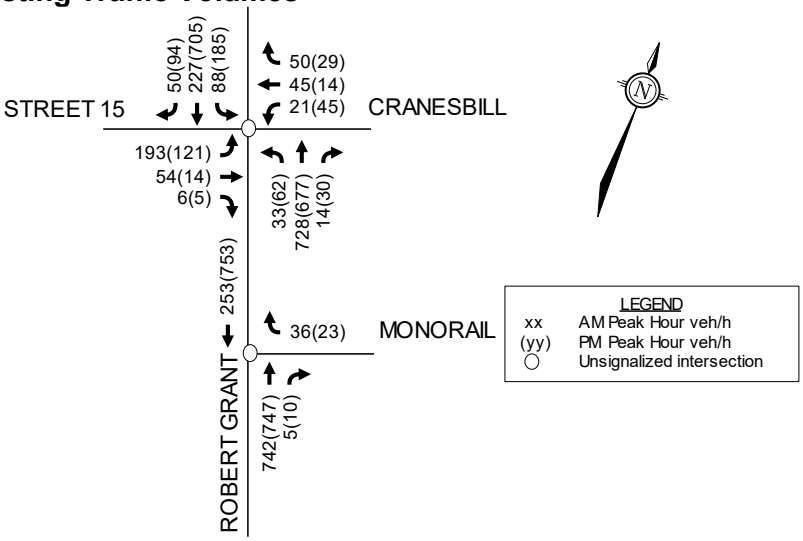
Weekday traffic counts could not be completed as the study area intersections do not currently exist. Traffic volumes were taken from the projected volumes from the CTS zoning application.

Excerpts from the CTS report are included in **Appendix C**. Traffic volumes within the study area are shown in **Figure 2**.

2.1.8 Collision Records

As the study area intersections have not been constructed at this time, and will be constructed as part of the Abbott's Run subdivision, no collision history exists at the study area intersections.

Figure 2: Existing Traffic Volumes



2.2 Planned Conditions

2.2.1 Planned Roadway and Transit Projects

The City's 2013 Transportation Master Plan (TMP) identifies the Robert Grant Avenue Extension in its 2031 Road Network Concept and 2031 RTTP Network Concept. Within the affordable road network the Robert Grant Avenue extension will form part of a new two lane arterial between Palladium Drive and Fernbank Road. The TMP 2031 RTTP Affordable Network identifies transit signal priority and queue jump lanes at select locations along Robert Grant Avenue (from Palladium Drive to Fernbank Road). In the 2031 Network Concept at grade median BRT between Fernbank Road and Hazeldean Road is identified.

Within the Draft 2025 Capital Infrastructure Plan the Robert Grant Avenue extension between Abbott Street and Hazeldean Road is listed as a committed project and is currently under construction. Robert Grant Avenue between Hazeldean Road and Palladium Drive is identified as part of Phase 1 of the Priority Road Network. The at grade median BRT projectwas identified on the Needs Based Transit Network, but did not meet justification thresholds for the Priority Based Transit Network.

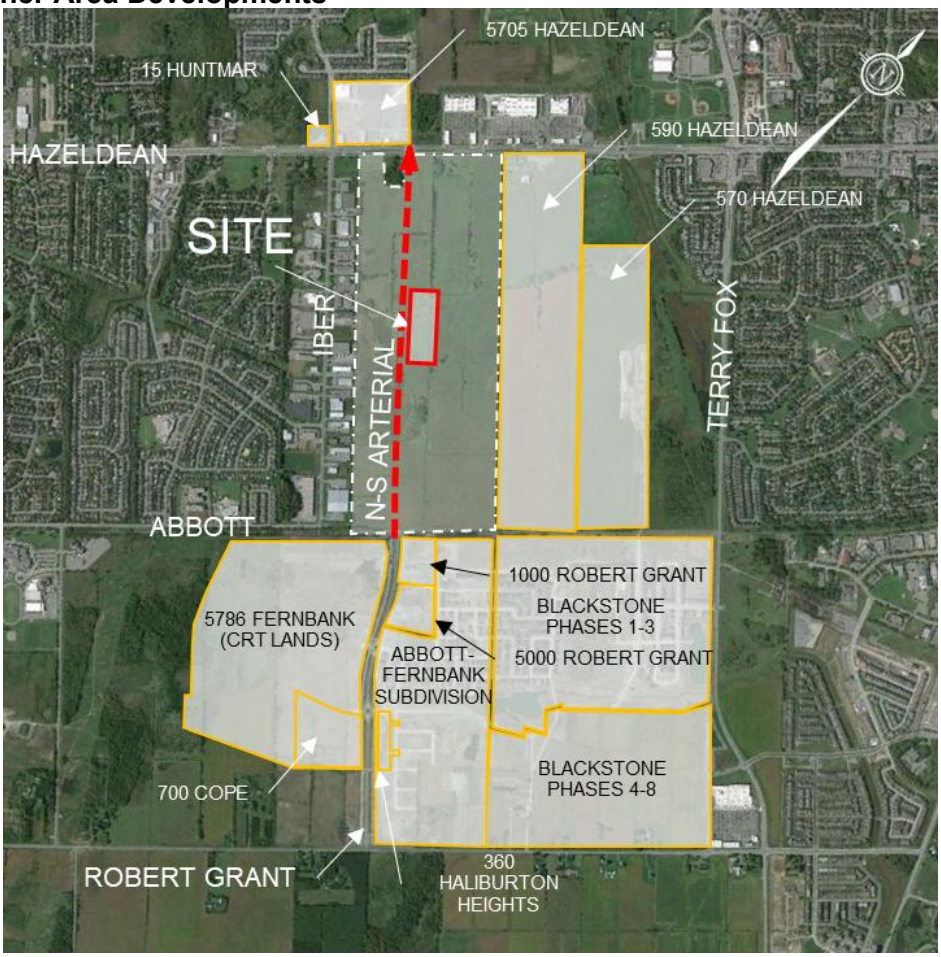
The adjacent Cranesbill Road and Monorail Road will be constructed as part of Phase 2 of the Abbott's Run subdivision, and will be completed in advance of the development.

2.2.2 Other Area Developments

In proximity of the proposed development, there are multiple developments that are approved, or in the approval process. The other area developments included in this analysis are summarized below. An aerial photo showing the location of other area developments is provided in **Figure 3**. Other developments in the area include:

- A TIS dated September 2013 was prepared by Stantec in support of Draft Plan of Subdivision application for 590 Hazeldean Road (Richcraft subdivision) immediately east of the subject lands. This development consists of 227 single family detached dwellings and 518 townhouse dwellings. At this time the lands are largely built out.

Figure 3: Other Area Developments



- A Transportation Brief dated March 2013 was prepared by Stantec in support of Draft Plan of Subdivision application for 570 Hazeldean Road (Mattamy subdivision) east of the subject lands and adjacent to the Carp river. This development consists of approximately 600 residential units. At this time the lands are largely built out.

- A Transportation Letter dated January 2011 was prepared by IBI Group in support of Draft Plan of Subdivision applications for 5786 Fernbank Road, also known as the CRT Lands Phases 1-2. The development consists of 510 single family detached dwellings, 364 townhouses, an elementary school, and a high school. Construction of Phase 1 of the CRT Lands is currently ongoing. A TIA dated July 2019 was prepared Parsons in support of a Site Plan Control application for 700 Cope Drive, which forms part of the CRT lands. The proposed development consists of a High School (Grades 7-12) with a capacity of 1800 students. At this time the lands are largely built out.

- A TIA dated June 2019 was prepared by Parsons in support of a Zoning By-law Amendment application for 1000 Robert Grant Avenue. The proposed development consists of three residential towers with a total of 566 units.

- A TIA dated August 2019 was prepared by D.J. Halpenny & Associates Ltd. In support of a Site Plan Control application for 5705 Hazeldean Road. The proposed development consists of a 47,710ft^2 expansion to the existing retail development.

- A TIA dated March 2024 was prepared by Parsons in support of a Site Plan Control application for 5000 Robert Grant Avenue. The proposed development consists of 504 apartment units and 2,185 ft² of ground floor retail.

Excerpts from relevant transportation studies have been attached in **Appendix D**.

2.3 Study Area and Time Periods

The study area for this report includes the boundary roadways Robert Grant Avenue, Cranesbill Road, and Monorail Road, as well as the following intersection:

- Robert Grant Avenue/Cranesbill Road
- Robert Grant Avenue/Monorail Road

Analysis will be completed for the weekday AM and PM peak hours, as this represents the worst-case combination of site generated traffic and adjacent street traffic.

2.4 Access Design

Two full-movement accesses are proposed as part of the development, with one full-movement driveway each to Cranesbill Road and Monorail Road. The proposed accesses have been evaluated using the relevant provisions of the City's *Private Approach By-Law* (PABL), Zoning By-law (ZBL), and the Transportation Association of Canada (TAC)'s *Geometric Design Guide for Canadian Roads*.

Section 25(1)(c) of the PABL identifies a maximum width requirement of 9m for any two-way private approach. The ZBL identifies minimum width of 6.0m and maximum width of 6.7m. The proposed accesses are each approximately 6.0m in width, meeting this requirement.

Section 25(1)(m) of the PABL identifies minimum distances between a private approach and the nearest intersecting street line, for sites that abut or are within 46m of an arterial or major collector roadway. For residential developments with 100-199 parking spaces, the minimum distance is 30m (measuring nearest edge to intersecting ROW). TAC's *Geometric Design Guide* identifies a minimum corner clearance of 15m for a local and 25m for a collector (measuring nearest edge to nearest edge). The western edge of the proposed access to Cranesbill Road is approximately 55m from the ROW, and approximately 60m from the nearest edge of Robert Grant Avenue. The western edge of the proposed access to Monorail Road is approximately 65m from the ROW and 80m from the nearest edge of Robert Grant Avenue. Therefore, these requirements are met.

Section 25(1)(p) of the PABL identifies a minimum separation requirement of 3m between a private approach and the nearest property line. The proposed accesses to Cranesbill Road and Monorail Road are approximately 1.6m away from the eastern property line. It is noted that there are no planned adjacent driveways to residential driveways on Cranesbill Road and the nearest residential driveway access on Monorail Road will be outside the curb return. Relief from the PABL requirements is requested.

Section 25(1)(u) of the PABL identifies a requirement that any private approach serving a parking area with more than 50 parking spaces shall not have a grade exceeding 2% for the first 9m inside the property line. The proposed access grading adheres to the PABL requirements.

The TAC Geometric Design Guide for Canadian Roads identifies a minimum corner clearance distance of 55m for an access downstream of a roundabout on an undivided collector road (Cranesbill Road) and 15m for an access upstream of a stop control intersection on a local road (Monorail Road). The available corner clearance is met at both the Cranesbill Road and Monorail Road accesses.

A review of stopping sight distance (SSD) and intersection sight distance (ISD) requirements at the proposed accesses has been conducted, in accordance with the minimum requirements outlined in TAC's *Geometric Design Guide*. For the purposes of this review, a design speed of 40 km/h has been assumed for Cranesbill Road and Monorail Road. Therefore, TAC outlines the following SSD and ISD requirements:

- SSD
  - 50m required for Cranesbill Road and Monorail Road.
- ISD, looking right to turn left out of access
  - 85m desired for Cranesbill Road and Monorail Road.
- ISD, looking left to turn right out of access
  - 75m desired for Cranesbill Road and Monorail Road.

The proposed accesses to Cranesbill Road and Monorail Road will connect to the existing roadways that will be constructed as part of the adjacent subdivision. Cranesbill Road and Monorail Road are anticipated to not have horizontal and/or vertical curvatures or objects obstructing sightlines within proximity of the proposed accesses. No sight line concerns are identified at either access.

2.5 Development-Generated Travel Demand

2.5.1 Trip Generation

The number of peak hour person trips generated by the proposed development has been estimated using the *TRANS Trip Generation Manual*, which present peak period trip generation rates and mode shares for different types of housing for the AM and PM peak periods. The data is divided into trip generation rates and mode shares for Single-Family Detached Housing, Low-Rise Multifamily Housing (one or two storeys), and High-Rise Multifamily Housing (three or more storeys). For the High-Rise Multifamily Housing land use, the process of converting the trip generation estimates from peak period to peak hour is shown below.

The *TRANS Trip Generation Manual* identifies the subject site as being located within the Kanata-Stittsville district, which has the following observed mode shares during the peak periods.

Table 1: Kanata-Stittsville Residential Mode Shares

Mode	High-Rise Multifamily	
	AM Peak	PM Peak
Auto Driver	43%	55%
Auto Passenger	26%	19%
Transit	28%	21%
Cyclist	0%	0%
Pedestrian	4%	5%

The mode shares for this proposed development are assumed to generally follow the mode shares observed for the Kanata-Stittsville district. A mode share for the purposes of this TIA, which can be summarized as 50% driver, 20% passenger, 25% transit, 0% cyclist, and 5% pedestrian.

The process of converting the trip generation estimates from peak period to peak hour is shown in the following tables. The estimated number of person trips generated by the proposed development during the AM and PM peak periods are shown in **Table 2**. A breakdown of these trips by mode share is shown in **Table 3**.

Table 2: Proposed Residential – Peak Period Trip Generation

Land Use	TRANS Rate	Units	AM Peak Period (ppp[1])			PM Peak Period (ppp)		
			IN	OUT	TOT	IN	OUT	TOT
High-Rise Multifamily	AM: 0.80 PM: 0.90	124	31	68	99	65	47	112

1. ppp: Person Trips per Peak Period

Table 3: Proposed Residential – Peak Period Trips by Mode Share

Travel Mode	Mode Share	AM Peak Period			PM Peak Period		
		IN	OUT	TOT	IN	OUT	TOT
HIgh-Rise Person Trips		**31**	**68**	**99**	**65**	**47**	**112**
Auto Driver	50%	15	35	50	32	24	56
Auto Passenger	20%	6	13	19	13	9	22
Transit	25%	8	17	25	16	12	28
Cyclist	0%	0	0	0	0	0	0
Pedestrian	5%	2	3	5	3	3	6

Table 4 of the *TRANS Trip Generation Manual* includes adjustment factors to convert the estimated number of trips generated for each mode from peak period to peak hour. A breakdown of the peak hour trips by mode is shown in **Table 4**.

Table 4: Proposed Residential – Peak Hour Trips by Mode Share

Travel Mode	Adj. Factor		AM Peak Hour			PM Peak Hour		
	AM	PM	IN	OUT	TOT	IN	OUT	TOT
Auto Driver	0.48	0.44	7	17	24	14	11	25
Auto Passenger	0.48	0.44	3	7	10	6	4	10
Transit	0.55	0.47	4	10	14	8	5	13
Cyclist	0.58	0.48	0	0	0	0	0	0
Pedestrian	0.58	0.52	1	2	3	2	1	3
TOTAL PERSON TRIPS			**15**	**36**	**51**	**30**	**21**	**51**

From the previous table, the proposed development is estimated to generate 51 person trips (including 24 vehicle trips) during the AM peak hour, and 51 person trips (including 25 vehicle trips) during the PM peak hour.

2.5.2 Trip Distribution

The distribution of trips generated by the residential development is consistent with the previous CTS report and the Fernbank TMP as well as similar development applications within the Fernbank CDP lands. Residential trips generated by the proposed development were distributed to the road network as follows:

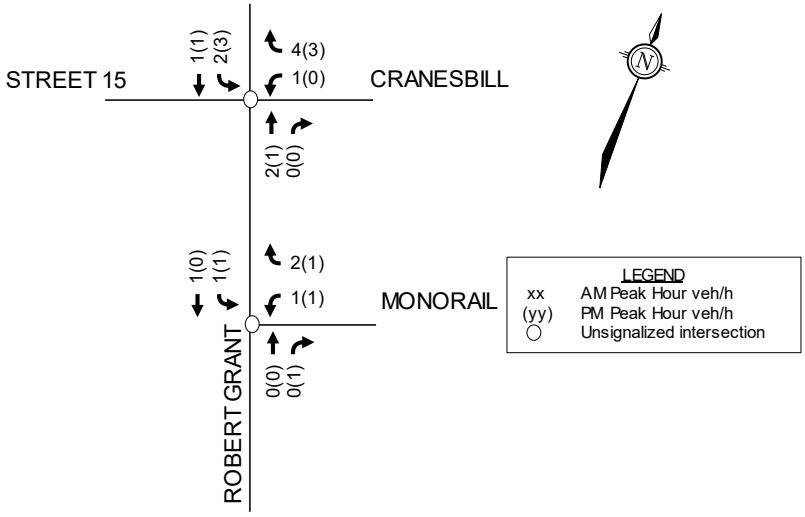
- 35% to/from the north via Robert Grant Avenue
- 55% to/from the east via Abbott Street through Cranesbill Road
- 5% to/from the south via Robert Grant Avenue
- 5% to/from the west via Abbott Street/Hazeldean Road

2.5.3 Trip Assignment

Trips generated by the proposed townhouse units have been split between the proposed accesses. 70% of trips to/from the north and west via Robert Grant Avenue and Hazeldean Road are assumed to use the Cranesbill Road access and 30% are assumed to use the Monorail Road access. 70% of trips to/from the south and west via Robert Grant Avenue and Abbott Street are assumed to use the Monorail Road access and 30% are assumed to use the Cranesbill Road access. All trips to/from the east via Abbott Street and Cranesbill Road are assumed to be split evenly between the Cranesbill Road and Monorail Road accesses.

Based on the above, the distribution of site-generated traffic volumes to the study area intersections are shown in **Figure 4**.

Figure 4: Site Generated Traffic



2.6 Exemptions Review

This module reviews possible exemptions from the final TIA, as outlined in the *2023 Revised TIA Guidelines*. The applicable exemptions for this site are shown in **Table 5**.

Table 5: TIA Exemptions

Module	Element	Exemption Criteria	Status
4.1 Development Design	*4.1.2* Circulation and Access	• Required for site plan control and zoning by-law amendment applications	Not Exempt
	4.1.3 New Street Networks	• Required for draft plan of subdivision applications	Exempt
4.2 Parking	*All elements*	• Required for site plan control and zoning by-law amendment applications	Not Exempt

Module	Element	Exemption Criteria	Status
4.6 Neighbourhood Traffic Calming	*All elements*	• If all of the following criteria are met: 1. Access is provided to a collector or local roadway 2. Application is for zoning by-law amendment or draft plan of subdivision 3. Development generates more than 75 vehicle trips 4. Site trip infiltration is expected, and site-generated traffic will increase peak volumes by 50% or more along the route between the site and an arterial 5. The subject street segment is adjacent to two or more of the following significant sensitive land uses: ○ School (within 250m walking distance) ○ Park ○ Retirement/older adult facility ○ Licensed child care centre ○ Community centre ○ 50+% of adjacent properties along the route(s) are occupied by residential lands and at least ten dwellings are occupied	Exempt
4.7 Transit	*4.7.1* Transit Route Capacity	• Required when proposed development generates more than 75 transit trips	Exempt
	4.7.2 Transit Priority Requirements	• Required when proposed development generates more than 75 vehicle trips	Exempt
4.8 Network Concept	*All elements*	• Required when proposed development generates more than 200 peak hour person trips in excess of the equivalent volume permitted by the established zoning	Exempt
4.9 Intersection Design	*All elements*	• Required when proposed development generates more than 75 vehicle trips	Exempt

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 4.5: Transportation Demand Management

3.0 FORECASTING

3.1 Background Traffic

For the purposes of this TIA, future traffic projections are anticipated to be consistent with the projections presented in **Figure 2**.

4.0 ANALYSIS

4.1 Development Design

4.1.1 Design for Sustainable Modes

On-site pathways will be provided between the main building entrances and sidewalks on Cranesbill Road, Robert Grant Boulevard, and Monorail Road.

Bicycle parking for the development will be in accordance with the City's *Zoning By-Law* (ZBL). A total of 62 bicycle parking spaces will be provided within the subject site with bike racks being provided throughout the site.

As stated in Section 2.1.5, there are no existing bus stops in vicinity of the subject site. Nearby transit stops will be constructed with the completion of Robert Grant Avenue and Cranesbill Road in addition to the park and ride that will be constructed as part of Phase 5 of the Abbott's Run subdivision.

A review of the City's *Transportation Demand Management (TDM)-Supportive Development Design and Infrastructure Checklist* has been conducted. All required TDM-supportive design and infrastructure measures in the TDM checklist are met. A copy of this checklist is included in **Appendix E**.

In order to encourage the use of sustainable modes, the following 'basic' and 'better' design measures from the City's TDM Infrastructure Checklist will be implemented for the proposed redevelopment:

- The building will be located near the street and have no parking areas between the street and building entrances;
- The location of the building entrances will minimize the walking distance to sidewalks and transit stops/stations; and
- Building doors and windows will ensure visibility of pedestrians from the building.

4.1.2 Circulation and Access

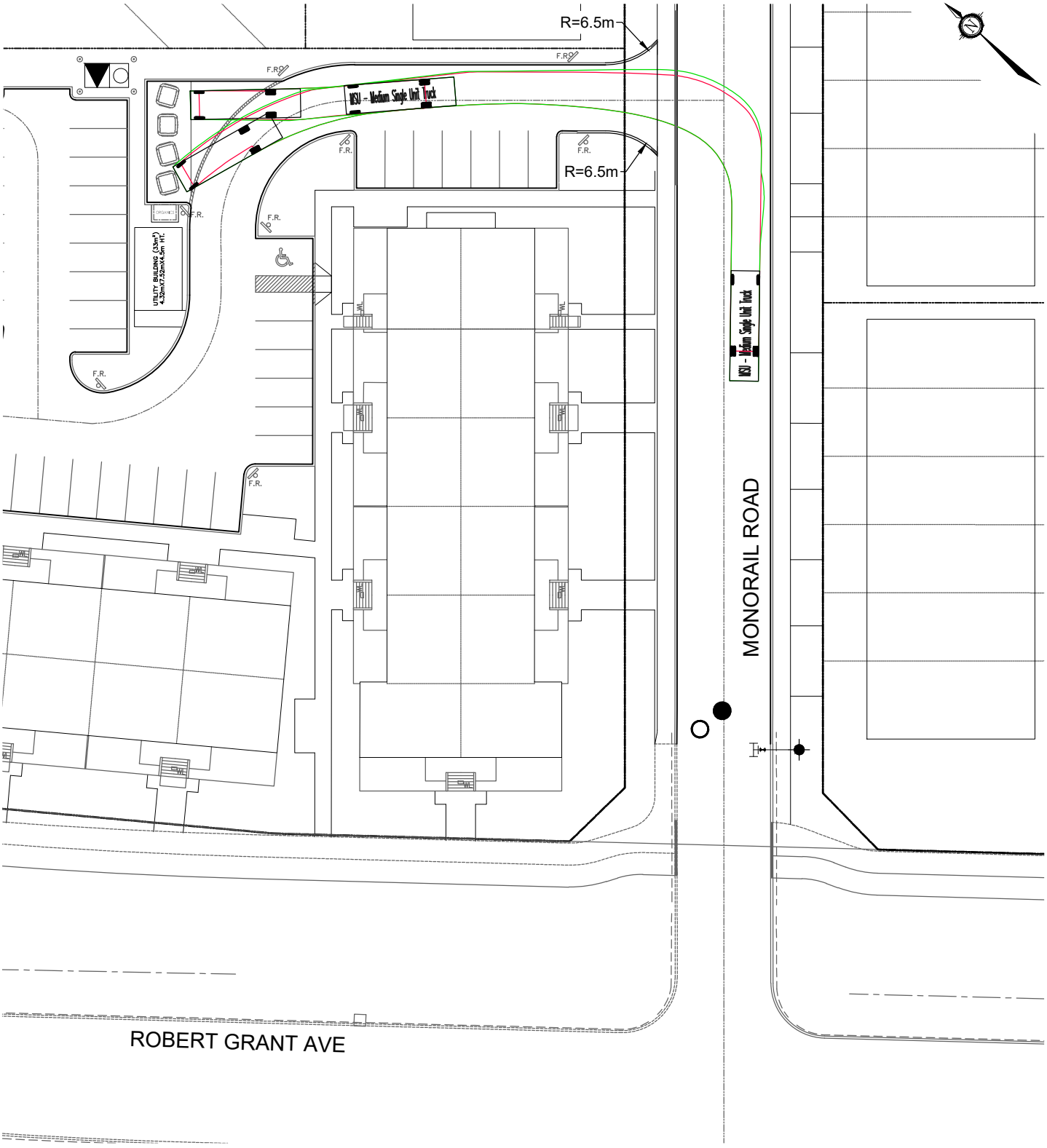
Garbage collection will occur within the development along Street 1 near the accesses to Cranesbill Road and Monorail Road. The vehicular access and drive aisle will form the fire route for the subject site.

A review of turning movements for a Medium Single Unit (MSU)/garbage truck has been completed within the site in **Figures 5**, **6, 7,** and **8**.

4.2 Parking

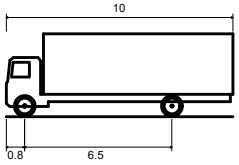
The subject site is located in Area C of Schedule 1 and Schedule 1A of the City's ZBL.

An evaluation of the proposed parking versus the requirements are summarized in **Table 6**.



NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com



MSU - Medium Single Unit Truck

Overall Length	10.000m
Overall Width	2.600m
Overall Body Height	3.650m
Min Body Ground Clearance	0.445m
Track Width	2.600m
Lock-to-lock time	4.00s
Curb to Curb Turning Radius	11.100m

ROBERT GRANT AVENUE BLOCK 13

TURNING MOVEMENT (MSU / GARBAGE TRUCK)

SCALE 1 : 500 (0, 5m, 10m, 20m)

DATE JUN 2025 | JOB 122039 | FIGURE FIGURE 5

SHT8X11.DWG - 216mmx279mm

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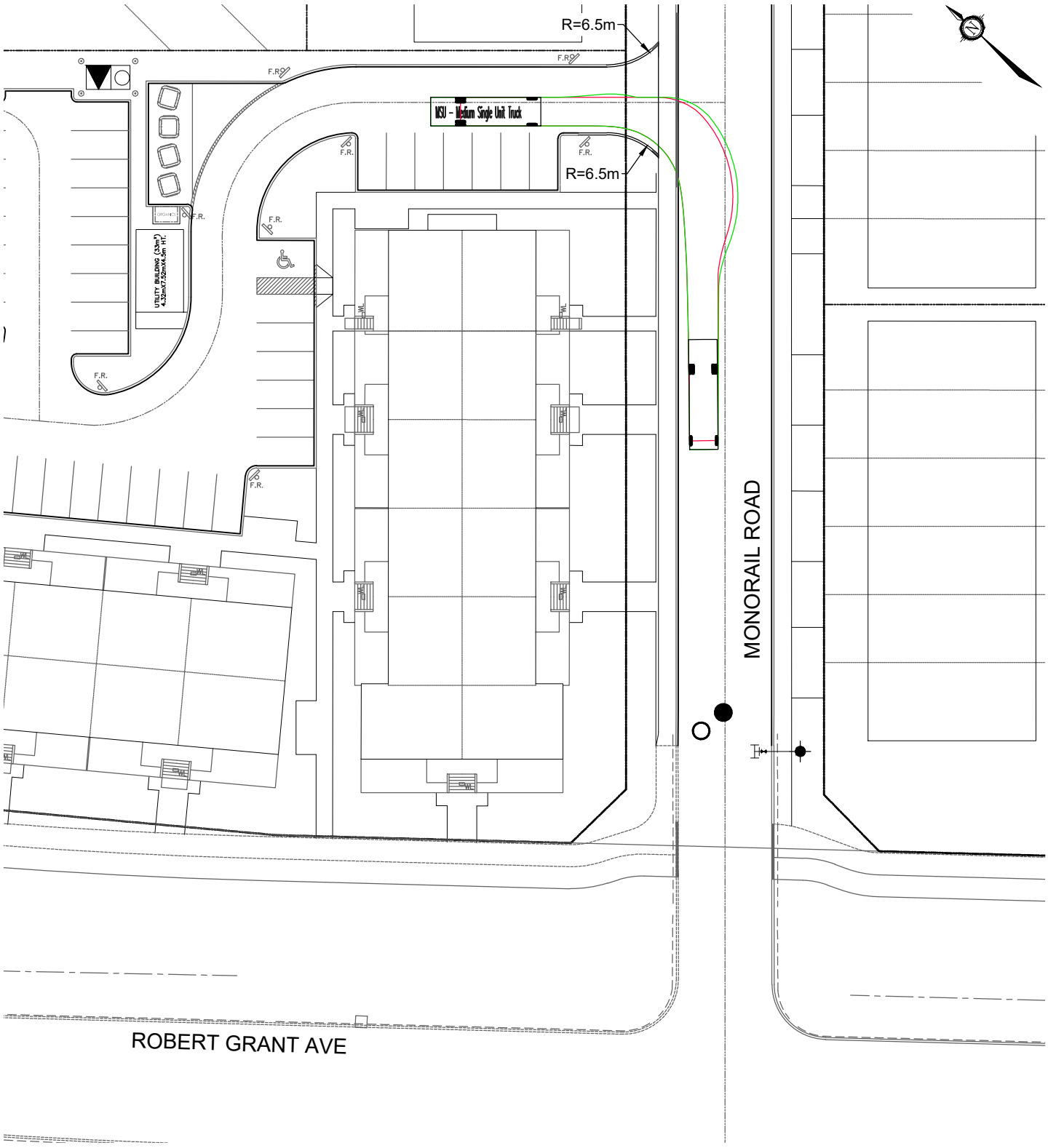

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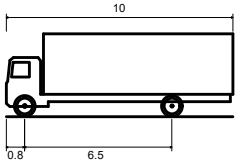

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ROBERT GRANT AVENUE BLOCK 13

TURNING MOVEMENT (MSU / GARBAGE TRUCK)

SCALE 1 : 500 (0, 5m, 10m, 20m)

DATE JUN 2025 | JOB 122039 | FIGURE FIGURE 6

SHT8X11.DWG - 216mmx279mm

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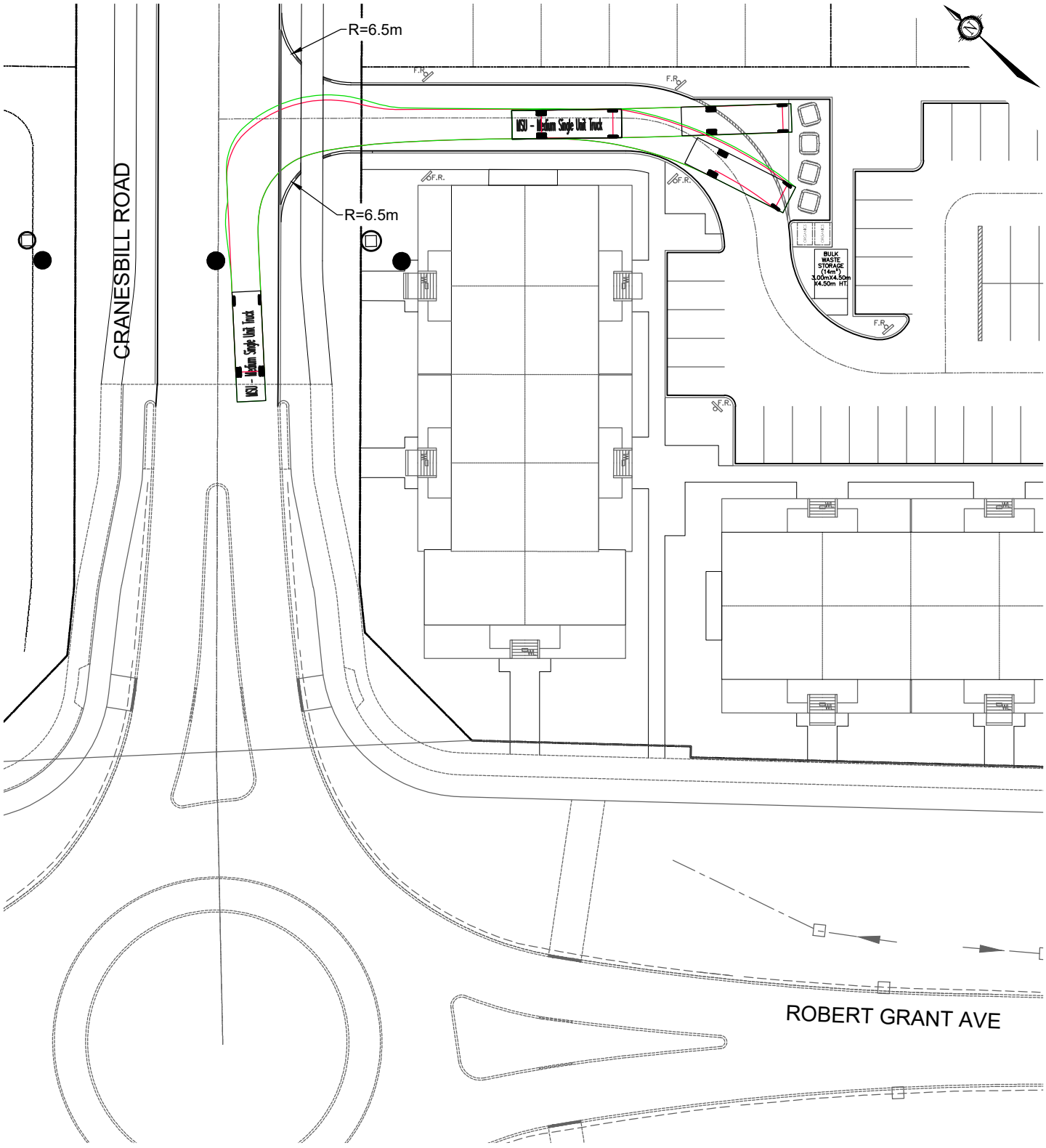

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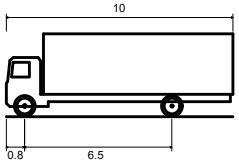

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ROBERT GRANT AVENUE BLOCK 13

TURNING MOVEMENT (MSU / GARBAGE TRUCK)

SCALE 1 : 500 (0, 5m, 10m, 20m)

DATE JUN 2025 | JOB 122039 | FIGURE FIGURE 7

SHT8X11.DWG - 216mmx279mm

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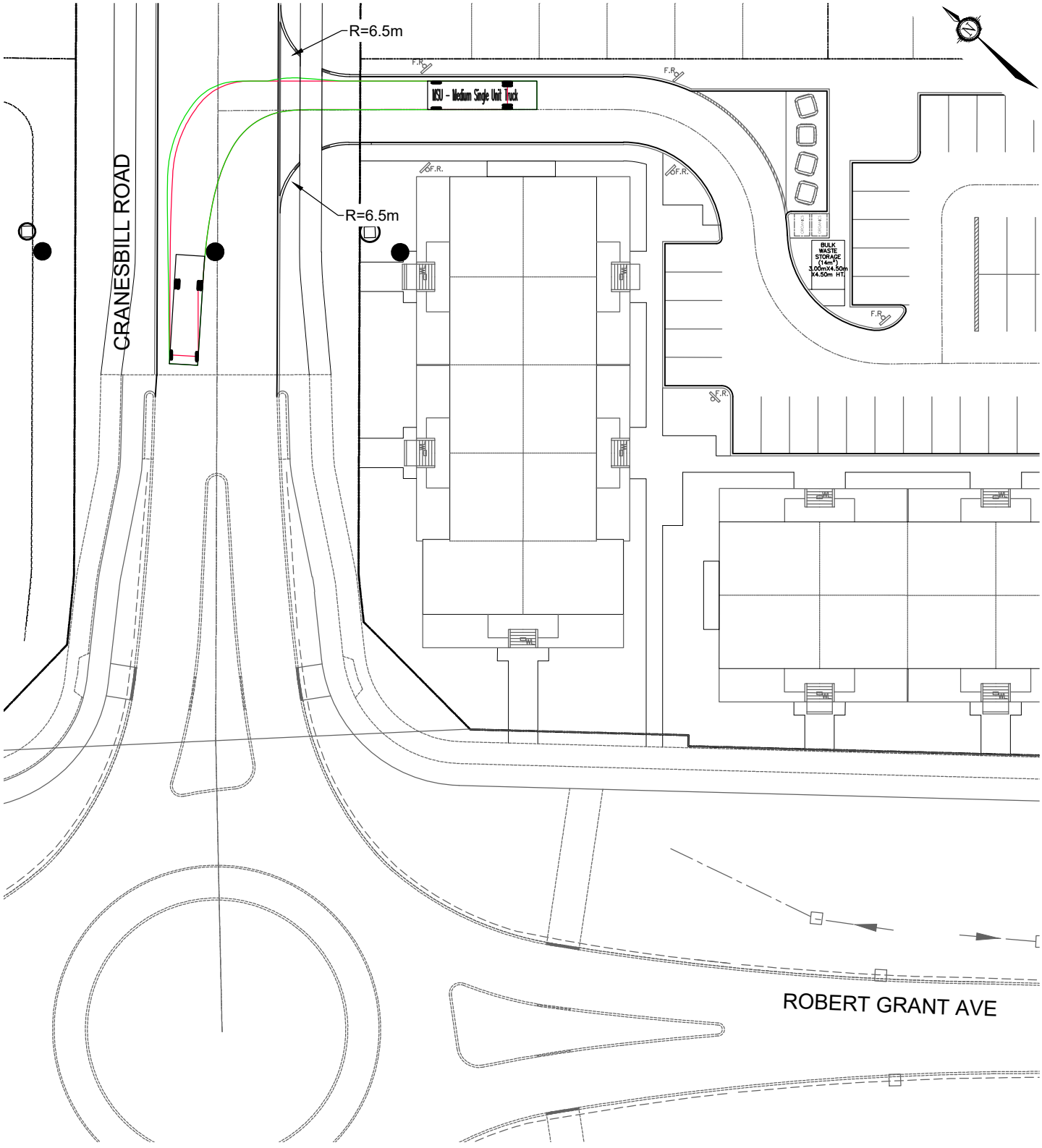

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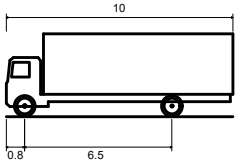

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ROBERT GRANT AVENUE BLOCK 13

TURNING MOVEMENT (MSU / GARBAGE TRUCK)

SCALE 1 : 500 (0, 5m, 10m, 20m)

DATE JUN 2025 | JOB 122039 | FIGURE FIGURE 8

SHT8X11.DWG - 216mmx279mm

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Table 6: Parking Requirements

Land Use	Rate	Units	Required	Proposed
Minimum Vehicle Parking Requirements				
Dwelling, Stacked (Resident)	0.9 per dwelling unit[1]	124	112	124
Dwelling, Stacked (Visitor)	0.1 per dwelling unit[1]		12	12
		Total	**124**	**136**
Minimum Bicycle Parking Requirements				
Dwelling, Stacked (Resident)	0.5 per dwelling unit	124	62	62
		Total	**62**	**62**

1. As per requested Zoning exception for ongoing ZBL Amendment Application with the subdivision

As part of the adjacent subdivision works, the proponent has proposed a reduced parking ratio for stacked townhouses. A total of 136 vehicle parking spaces are proposed in accordance with the proposed zoning.

A total of 62 bicycle parking spaces are proposed, meeting the requirements of the Zoning By-law.

One accessible Type A visitor parking space is provided.

4.3 Boundary Street Design

This section provides a review of the boundary streets Robert Grant Avenue, Cranesbill Road, and Monorail Road using complete streets principles. The Multi-Modal Level of Service (MMLOS) Guidelines, produced by IBI Group in October 2015, were used to evaluate the levels of service for each alternative mode of transportation on the boundary streets. The subject site is located within a General Urban Area (per Schedule B of the City's previous Official Plan, which is referenced by the MMLOS Guidelines). As the boundary streets have not yet been constructed, analysis has been completed based on planned conditions. The latest planned pavement marking and signage drawings for Robert Grant Avenue are shown in **Appendix F**.

A detailed segment MMLOS review of the boundary streets is included in **Appendix G**. A summary of the segment MMLOS analysis is provided below in **Table 7**.

Table 7: Segment MMLOS Summary

Segment	PLOS		BLOS		TLOS		TkLOS	
	Actual	Target	Actual	Target	Actual	Target	Actual	Target
Robert Grant Avenue	**D**	C	A	B	-	-	B	E
Cranesbill Road	A	C	B	D	-	-	B	N/A
Monorail Road	B	C	B	D	-	-	B	N/A

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

- Robert Grant Avenue does not meet the target pedestrian level of service (PLOS);
- All boundary streets meet the target bicycle level of service (BLOS);
- No target transit level of service (TLOS) has been identified for any boundary street and the TLOS has not been analyzed; and
- Robert Grant Avenue meets the target truck level of service (TkLOS). Cranesbill Road and Monorail do not have a target TkLOS but achieve a TkLOS B.

Pedestrian Level of Service
Both sides of Robert Grant Avenue do not meet the target PLOS C. As the design of Robert Grant Avenue was recently approved and is currently under construction, no mitigation measures are identified.

4.4 Transportation Demand Management

4.4.1 Context for TDM

The proposed development will consist of 124 stacked townhouse dwelling units.

4.4.2 Need and Opportunity

The proposed redevelopment is located within the Kanata- Stittsville district.

As described in Section 2.5.1, the proposed modal shares are based on the City's TRANS modal shares for the Kanata- Stittsville district. As the proposed modal shares are consistent with the area, the development is anticipated to meet the target auto modal share.

4.4.3 TDM Program

At this time, the proponent does not agree to implement additional TDM measures within the proposed development. However, it is noteworthy that a reduced parking ratio of 1.1 spaces per unit (combined tenant and visitor) is being sought. The proposed parking reduction will encourage tenants to use non-auto modes of transportation.

5.0 CONCLUSIONS AND RECOMMENDATIONS

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

Access Design
- The proposed accesses adhere to all other provisions of the City's Private Approach By-law.
- The available corner clearance is met at both the Cranesbill Road and Monorail Road accesses.
- Cranesbill Road and Monorail Road are anticipated to not have horizontal and/or vertical curvatures or objects obstructing sightlines within proximity of the proposed accesses. No sight line concerns are identified at either access.

Forecasting
- The proposed development is estimated to generate 51 person trips (including 24 vehicle trips) during the AM peak hour, and 51 person trips (including 25 vehicle trips) during the PM peak hour.

Development Design
- On-site pathways will be provided between the main building entrances and sidewalks on Cranesbill Road, Robert Grant Boulevard, and Monorail Road.

- Bicycle parking for the development will be in accordance with the City's *Zoning By-Law* (ZBL). A total of 62 bicycle parking spaces will be provided within the subject site with bike racks being provided throughout the site.

- All required TDM-supportive design and infrastructure measures in the TDM checklist are met.

- Garbage collection will occur within the development along Street 1 near the accesses to Cranesbill Road and Monorail Road. The vehicular access and drive aisle will form the fire route for the subject site.

Parking

- As part of the adjacent subdivision works, the proponent has proposed a reduced parking ratio for stacked townhouses. A total of 136 vehicle parking spaces are proposed in accordance with the proposed zoning.

- A total of 62 bicycle parking spaces are proposed, meeting the requirements of the Zoning By-law.

- One accessible Type A visitor parking space is provided.

Boundary Street Design

- Robert Grant Avenue does not meet the target pedestrian level of service (PLOS). As the design of Robert Grant Avenue was recently approved and is currently under construction, no mitigation measures are identified.

- All boundary streets meet the target bicycle level of service (BLOS).

- Robert Grant Avenue meets the target truck level of service (TkLOS). Cranesbill Road and Monorail do not have a target TkLOS but achieve a TkLOS B.

Transportation Demand Management

- At this time, the proponent does not agree to implement additional TDM measures within the proposed development. However, it is noteworthy that a reduced parking ratio of 1.1 spaces per unit (combined tenant and visitor) is being sought. The proposed parking reduction will encourage tenants to use non-auto modes of transportation.

Based on the foregoing, the proposed development is recommended from a transportation perspective.

NOVATECH

Prepared by:

Trevor Van Wiechen, P.Eng.
Project Engineer | Transportation

Reviewed by:

Brad Byvelds, P.Eng.
Senior Project Manager | Transportation

APPENDIX A

Draft Plan and Site Plan

SCHEDULE OF LAND USE

BLOCK #'s	LAND USE	UNITS	AREA (hectares)
1 – 288	Singles	288	12.34
289 – 307	Towns	469	12.05
309 – 315	Multi–Family	747	13.58
319, 320	High Density Residential	360	4.40
321	Institutional		3.23
308, 317, 318	Mixed Use	591	6.49
316	MU / Park & Ride	300	2.27
322	SWM		4.41
323 – 326	Park		3.25
327	Open Space		1.19
328, 329	Transmission Corridor		2.69
330 – 332	Pathway Blocks		0.10
333	Private Access Block		0.06
334	Servicing Block		0.11
	Roads		19.84
TOTAL			86.00

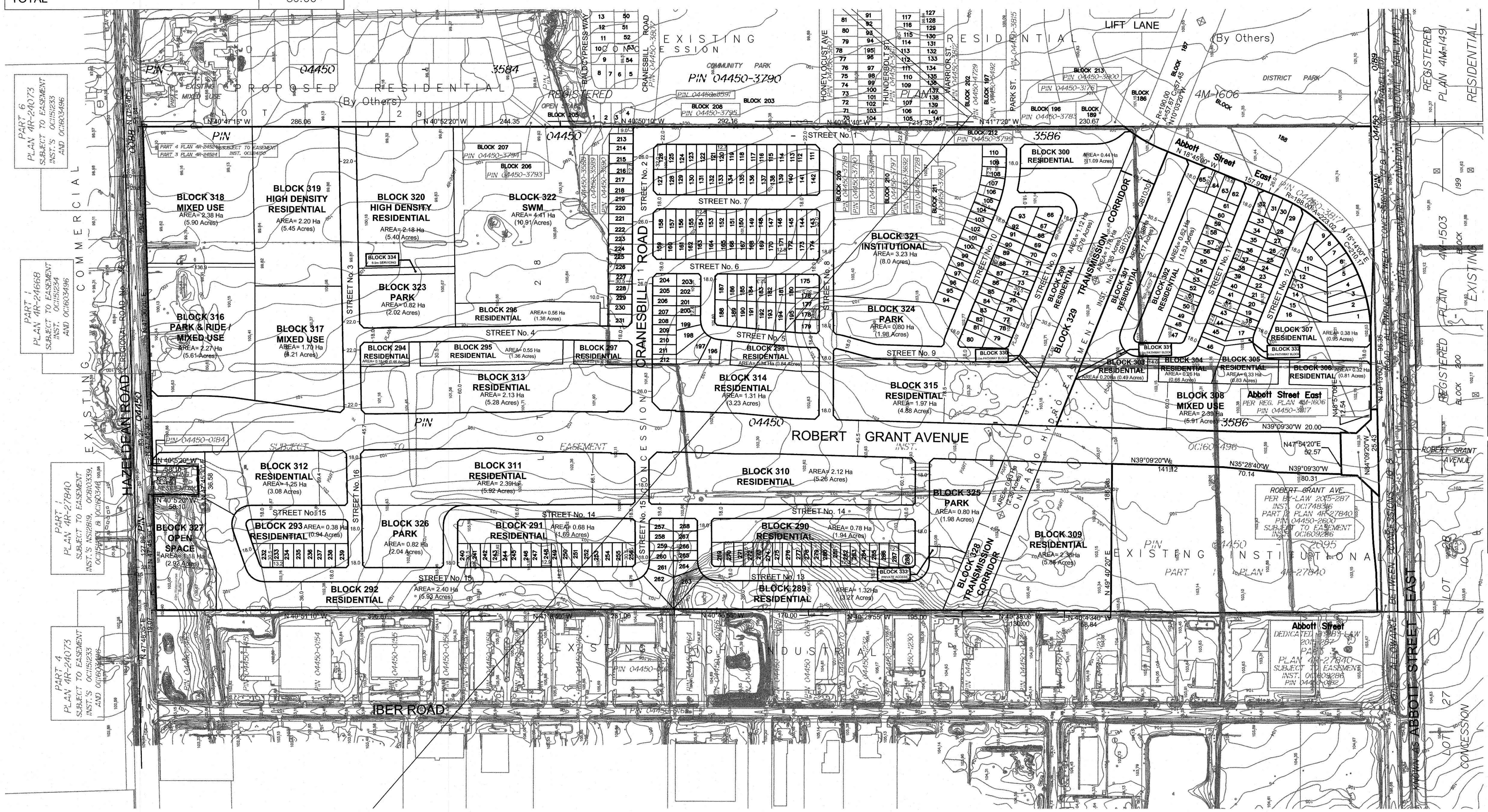
SUBJECT TO THE CONDITIONS, IF ANY, SET FORTH IN OUR LETTER DATED July 23rd, 2021, THIS DRAFT PLAN IS APPROVED BY THE CITY OF OTTAWA UNDER SECTION 51 OF THE PLANNING ACT AND SECTION 51 OF THE PLANNING ACT THIS 13th DAY OF August, 2021

ERIN O'CONNELL, MANAGER (A)
DEVELOPMENT REVIEW WEST
PLANNING, INFRASTRUCTURE AND ECONOMIC DEVELOPMENT DEPARTMENT, CITY OF OTTAWA

KEY MAP
NOT TO SCALE

Note: Blocks 208, 209, 210, 211 & 212 on PLAN 4M-1606 are 0.30m Reserves.

METRIC : MEASUREMENTS SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.



DRAFT PLAN OF SUBDIVISION OF
PART LOT 28
CONCESSION 11
GEOGRAPHIC TOWNSHIP of GOULBOURN
CITY OF OTTAWA

SCALE
1 : 3,000

DATE: JULY, 2021

SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AND THEIR RELATIONSHIP TO ADJOINING LANDS ARE CORRECTLY SHOWN.

DATED July 19/21

T. HARTWICK
ONTARIO LAND SURVEYOR

ANNIS O'SULLIVAN VOLLEBEKK LTD.
ONTARIO LAND SURVEYORS

OWNER'S CERTIFICATE

WE, KIZELL MANAGEMENT CORPORATION, BEING THE REGISTERED OWNER(S), HEREBY AUTHORIZE NOVATECH TO PREPARE AND SUBMIT THIS DRAFT PLAN OF SUBDIVISION TO THE CITY OF OTTAWA FOR REVIEW AND APPROVAL.

DATED 7/20/2021

DocuSigned by:
C5BF03F2552D4D1...
MARK WITKOWSKI - KIZELL MANAGEMENT CORP.
I have the authority to bind the Corporation

ADDITIONAL INFORMATION REQUIRED UNDER SECTION 51 (17) OF THE PLANNING ACT.

A) The boundaries of the land proposed to be subdivided, certified by an Ontario land Surveyor;
As shown on Draft Plan

B) The locations, widths & names of the proposed highways within the proposed subdivision & of existing highways on which the proposed subdivision abuts;
As shown on Draft Plan

C) On a small keyplan, on a scale of not less than 1cm to 100m, all of the land adjacent to the proposed subdivision that is owned by the applicant or in which the applicant has an interest, every subdivision adjacent to the proposed subdivision & the relationship of the boundaries of the land to be subdivided to the boundaries of the township lot of other original grant of which the land forms the whole part;
As Shown on Draft Plan

D) The purpose for which the proposed lots are to be used;
Residential, Mixed Use, Institutional, Stormwater Management Facility, Commercial, Open Space, Park and Park & Ride shown on Draft Plan

E) The existing uses of all adjoining lands;
Residential, Light Industrial, Mixed Use, Park, Open Space, and Commercial shown on Draft Plan

F) The approximate dimensions & layout of the proposed lots;
As shown on Draft Plan

G) Natural & artificial features such as buildings or other structures or installations, railways, highways, watercources, drainage ditches, wetlands & wooded areas within or adjacent to the land proposed to be subdivided;
As shown on Draft Plan

H) The availability and nature of domestic water supplies;
Development will be supplied with full municipal piped water service

I) The nature & porosity of the soil;
Silty Clay, Clayey Silt, Glacial till, Sandy Silt, Silt, Silty Sand

J) Existing contours or elevations as may be required to determine the grade of the highways and the drainage of the land proposed to be subdivided;
Contours shown at 0.25 metre intervals on Draft Plan

K) The municipal services available or to be available to the land proposed to be subdivided;
Development will be supplied with full sanitary and storm water sewer services.

L) The nature & extent of any restrictions affecting the land proposed to be subdivided, including restrictive covenants or easements. 1994, c. 23, s. 30; 1996, c. 4, s. 28 (3).;
Part 3 on 4R-24157 as in GB10262 & GB10307; Part 1 on 4R-24668 OC1151234; Part 1 on 4R-24157 NS12819, OC810339; and Parts 4,5,6 on 4R-24073 OC1151233. OC1603496 (All Lands).

DEL SUBDIVISION

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6

Telephone	(613) 254-9643
Facsimile	(613) 254-5867
Website	www.novatech-eng.com

PROJECT No. 108195

10810-21 Tridel Lt28 Con11 SitePlan D1

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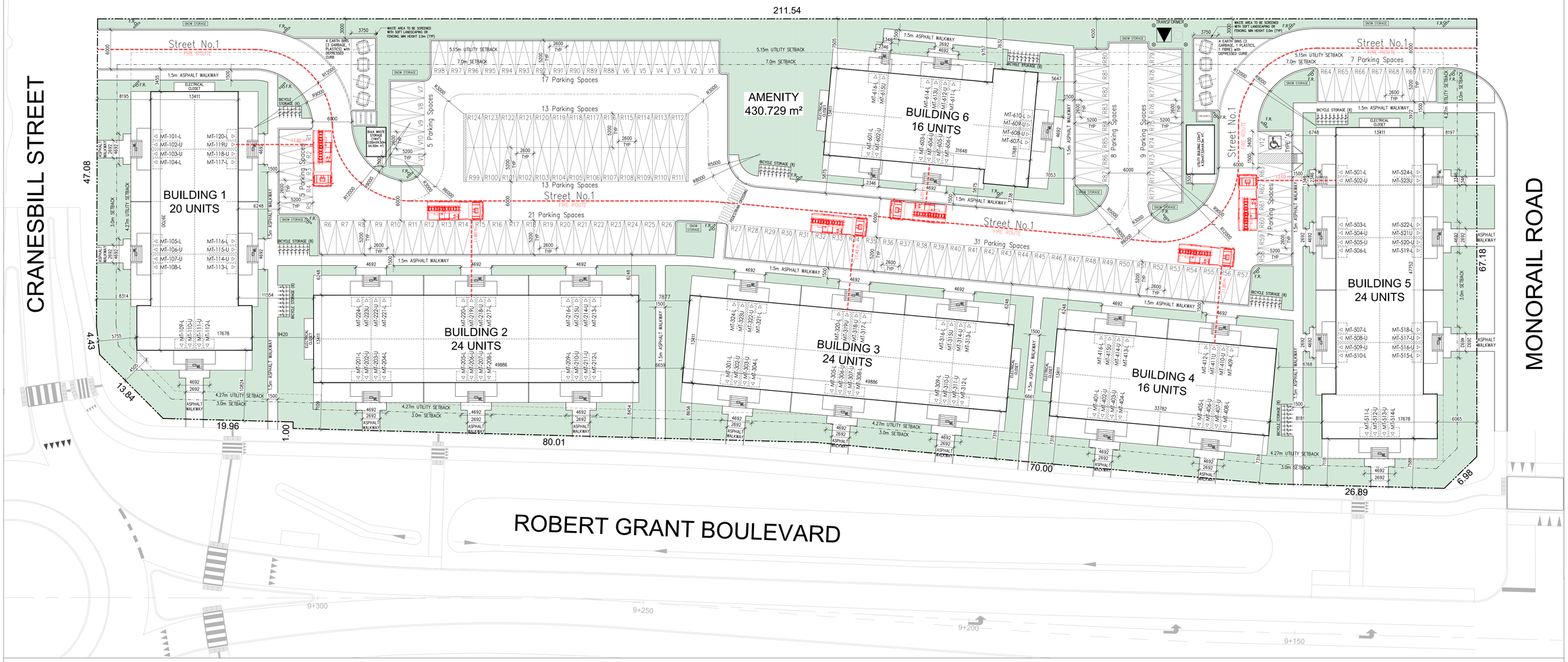


1 / A100 ARCHITECTURAL SITE PLAN

SCALE: 1:250

SITE STATISTICS

PROVISION	REQUIRED	PROPOSED		COMPLIANCE
NET LOT AREA (excludes dedication):	NO MINIMUM	13932.545 m²		**N/A**
DEDICATION AREA (easement):	NO MINIMUM	N/A		**N/A**
GROSS LOT AREA (includes dedication):	NO MINIMUM	13932.545 m²		**N/A**
BUILDING AREA	NO MINIMUM	3583.023 m²		**N/A**
LOT COVERAGE (building area/net lot area):	NO MINIMUM	3583.023 m²		**N/A**
GROSS FLOOR AREA	NO MINIMUM	10642.193 m²		**N/A**
NET F.S.I. (gross floor area/net lot area):	2.0 MAX	0.76		**YES**
GROSS F.S.I. (gross floor area/gross lot area):	N/A	0.76		**N/A**
BUILDING HEIGHTS (mid-point of roof):				
STACKED DWELLINGS:	11.00 m	11.62m (MID-POINT)		**NO**
SETBACKS :				
MIN. FRONT YARD (WEST):	3.00 m	5.75 m		**YES**
MIN INTERIOR SIDE YARD (NORTH):	7.00m	7.50 m		**YES**
MIN REAR YARD (EAST):	3.00m	6.06 m		**YES**
MIN CORNER SIDE YARD (SOUTH):	3.00m	4.50 m		**YES**
NUMBER OF STACKED TOWNHOUSE UNITS :		**124 SUITES**		
2 BED INTERIOR:	NO MINIMUM	**76 SUITES**		
3 BED END:	NO MINIMUM	**48 SUITES**		
TOTAL PARKING SPACES :		**136 PS**		
RESIDENT PARKING SPACES (STACKED-TOWNS):	**0.9 SPACES/UNIT = (124x0.9) MIN. 112 SP**	**124**	**1:1**	**YES**
VISITOR PARKING SPACES (STACKED-TOWNS) (INCLUDES BARRIER FREE PS)	**0.1 SPACES/UNIT = (124x0.1) MIN. 12 SP**	**12**	**0.1:1**	**YES**
BARRIER FREE PARKING SPACES DEDICATED FOR VISITORS :	**0**	**1**	**N/A**	**N/A**
BICYCLE SPACES (STACKED-TOWNS):				
BICYCLE SPACES :	**0.5 SPACES/UNIT = (124x0.5) MIN. 62**	**62**		**YES**
TOTAL LANDSCAPE :	**30%**	6182.615m² (44.38% OF NET LOT AREA)		**YES**
LANDSCAPED OPEN SPACE AREA :				
SOFT LANDSCAPE AREA :	**N/A**	3321.554m² (53.72% OF LANDSCAPING)		**N/A**
HARD LANDSCAPE AREA :	**N/A**	2861.061m² (46.28% OF LANDSCAPING)		**N/A**
LANDSCAPED PARKING AREA :				
TOTAL PARKING AREA :	**N/A**	5409.855m²		**N/A**
PAVED PARKING AREA :	**85% MAX**	3793.092m² (70.11 % OF PARKING AREA)		**YES**
LANDSCAPED PARKING AREA :	**15% MIN**	1616.762 m² (29.89 % OF PARKING AREA)		**YES**
AMENITY:				
TOTAL AMENITY AREA: (6 m² PER METRO UNIT INCULDES PRIVATE + COMMUNAL)	**124 UNITS X 6 m² =744 m²**	LOWER PATIO = 19.889 m² X 24 END UNITS LOWER PATIO = 16.483m² X 38 INT. UNITS UPPER BALCONY AREA 6.828m² X 62 UNITS = 1527.045m² TOTAL PRIVATE AREA +PRIVATE 1527.045m² + COMMUNAL 430.729m² =1957.773m² TOTAL AMENITY		**YES**
COMMUNAL AMENITY AREA: (50% OF REQUIRED)	**744 m^2 =372 m²**	AREA WEST OF BUILDING 6 = 430.729m² TOTAL COMMUNAL AREA		**YES**

LEGEND

- MAIN ENTRANCE
- BICYCLE PARKING, REFER TO LANDSCAPE DRAWINGS
- BARRIER FREE PARKING
- RESIDENT PARKING
- VISITOR PARKING
- H&V — FIRE HYDRANT, REFER TO CIVIL DRAWINGS
- LS — LIGHT POLE, REFER TO ELECTRICAL DRAWINGS
- LB — LIGHT BOLLARD, REFER TO ELECTRICAL DRAWINGS
- WL — WALL MOUNTED LIGHT FIXTURE, REFER TO ELECTRICAL DWGS
- F.R. — FIRE ROUTE SIGN AS PER CITY STANDARD
- H.S. — BARRIER FREE PARKING SIGN, AS PER CITY STANDARD
- S.S. — STOP SIGN
- I.S. — IDLE FREE ZONE SIGN
- P.S. — POPS SIGN
- TACTILE INDICATOR
- TRANSFORMER
- DC — DEPRESSED CURB
- G — GAS METER
- H — HYDRO METER
- NFHB — NON FREEZABLE HOSE BIB
- EVCS — ELECTRIC VEHICLE CHARGING STATION
- SIAMESE CONNECTION
- XXX — SUITE NUMBER
- FIRE BREAK BLOCK
- LLE — LOWER LEVEL ELEVATION
- FFE — FIRST FLOOR ELEVATION
- AREA DRAIN
- DENOTES FIRE ROUTE
- DENOTES AMENITY BOUNDARY
- DENOTES PARKING LOT LANDSCAPING BOUNDARY
- DENOTES SOFT LANDSCAPING AREA
- DENOTES DECORATIVE FENCING

SCALE=1:250

20 15 10 5 0 10 20

THESE DRAWINGS ARE NOT TO BE SCALED:
ALL DIMENSIONS MUST BE VERIFIED BY CONTRACTOR PRIOR TO COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES MUST BE REPORTED DIRECTLY TO SRN ARCHITECTS INC.

NO:	DATE:	ISSUED FOR:
1	2024.04.30	COORDINATION
2	2025.06.25	SPA SUBMISSION #1

minto

ADDITIONAL NOTES:

THE DRAWING, AS AN INSTRUMENT OF SERVICE, IS PROVIDED BY AND IS THE PROPERTY OF SRN ARCHITECTS INC. THE CONTRACTOR MUST VERIFY AND ACCEPT RESPONSIBILITY FOR ALL DIMENSIONS AND CONDITIONS ON SITE AND MUST NOTIFY SRN ARCHITECTS INC. OF ANY VARIATIONS FROM THE SUPPLIED INFORMATION. SRN ARCHITECTS INC. IS NOT RESPONSIBLE FOR THE ACCURACY OF SURVEY, STRUCTURAL, MECHANICAL, ELECTRICAL, ETC. ENGINEERING INFORMATION SHOWN ON THIS DRAWING. REFER TO APPROPRIATE ENGINEERS DRAWINGS BEFORE PROCEEDING WITH ANY WORK. CONSTRUCTION MUST CONFORM TO ALL APPLICABLE CODES AND REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION (UNDERTAKEN OTHERWISE NOTED). NO INVESTIGATION HAS BEEN OR REPORTED ON BY THIS OFFICE IN REGARDS TO THE ENVIRONMENTAL CONDITION OF THIS SITE.

CONDITIONS FOR ELECTRONIC INFORMATION TRANSFER:

ELECTRONIC INFORMATION IS SUPPLIED TO THE OTHER ASSOCIATED FIRMS TO ASSIST THEM IN THE ERECTION OF THEIR WORK/REVIEW. THE RECIPIENT FIRMS MUST DETERMINE THE COMPLETENESS/APPROPRIATENESS/ RELEVANCE OF THE INFORMATION IN RESPECT TO THEIR PARTICULAR RESPONSIBILITY.

PLAN OF SURVEY OF
BLOCK 140
REGISTERED PLAN 4M-1544
CITY OF OTTAWA
SURVEYED BY ANNIS, O'SULLIVAN, VOLLEBEKK LTD.

APPLICANT:
MINTO CANADA
200-180 KENT STREET
OTTAWA ON K1P 0B6

CIVIL ENGINEER:
DAVID SCHAEFER ENGINEERING LTD.
120 IBER ROAD, UNIT 103
STITTVILLE, ON K4S 1E9

SURVEYOR:
ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 CONCOURSE GATE, SUITE 500
NEPEAN, ON K2E 7S6

PRELIMINARY, NOT FOR CONSTRUCTION
ALL AREAS CALCULATIONS ARE PRELIMINARY

NO:	DATE:	REVISION COMMENT:

SRN ARCHITECTS
8395 JANE STREET, SUITE 203
VAUGHAN, ONTARIO. L4K 5Y2
PHONE: 905.417.5515 FAX: 905.417.5517

CLIENT:
Minto Canada
200-180 Kent Street
Ottawa, Ontario K1P 0B6

PROJECT:
Abbott's Run
Block 13
Ottawa, Ontario

DRAWING TITLE:
SITE PLAN

DATE: 2025-04-28	SCALE: 1:250
DRAWN BY: AB	CHECKED BY: GF
PROJECT NUMBER: S25016	DRAWING NUMBER: A100

APPENDIX B

TIA Screening Form

City of Ottawa 2017 TIA Guidelines TIA Screening

1. Description of Proposed Development

Municipal Address	5618 Hazeldean Road (Abbott's Run Block 13)
Description of Location	SE corner of future Robert Grant/Cranesbill intersection
Land Use Classification	Multifamily Residential
Development Size (units)	124 townhomes
Development Size square metre (m^2)	-
Number of Accesses and Locations	2 full-mvmt (1 to Cranesbill, 1 to Street No.7)
Phase of Development	1
Buildout Year	

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

2. Trip Generation Trigger

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

Table notes:

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

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

If the proposed development size is equal to or 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 Transit Priority Network, Rapid Transit network or Cross-Town Bikeways?	☐	☑
Is the development in a Hub, a Protected Major Transit Station Area (PMTSA), or a Design Priority Area (DPA)?[2]	☐	☑

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 kilometers per hour (km/h) 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 metre [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?	☐	☑

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

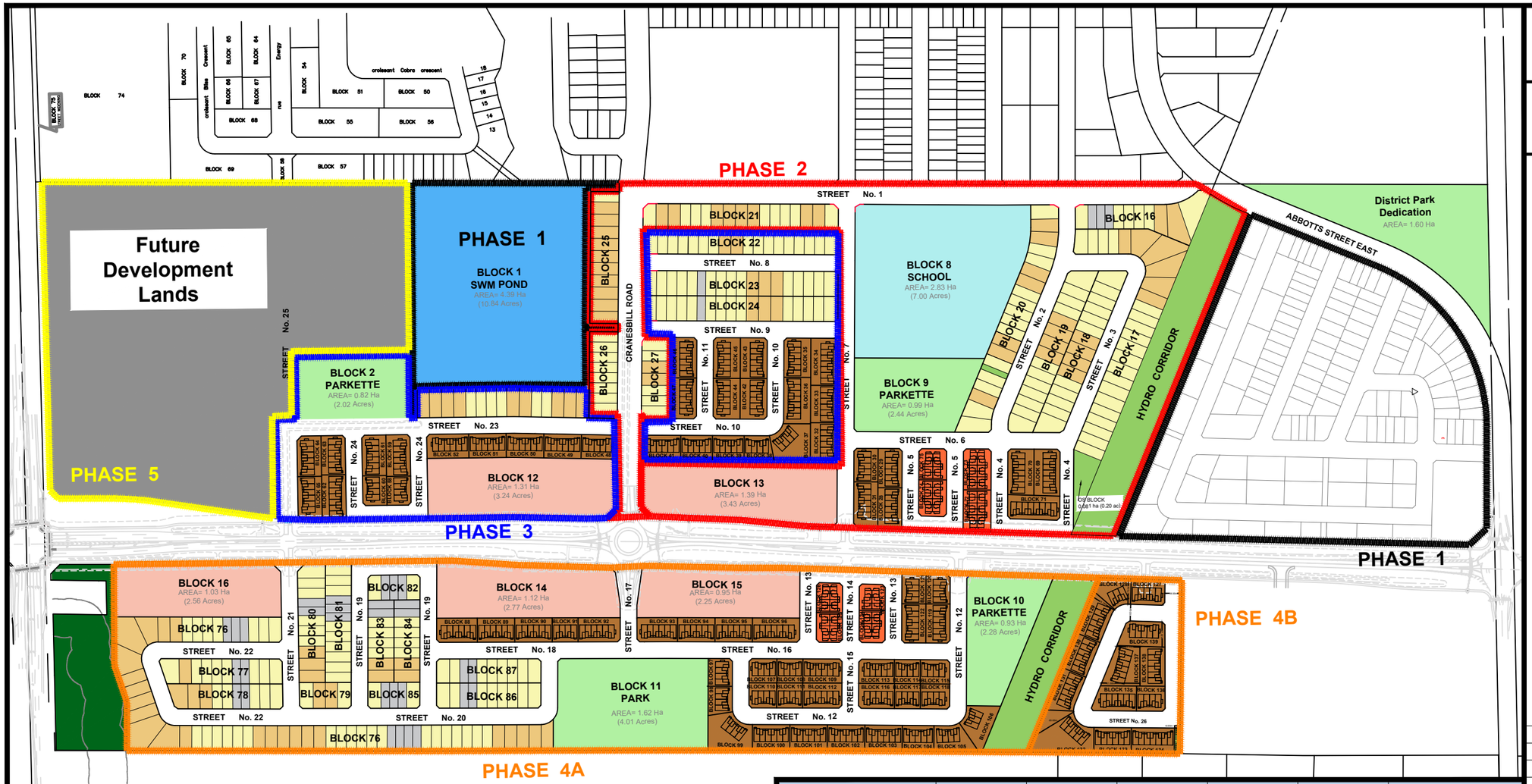
	Yes	No
Is there is a documented history of traffic operations or safety concerns on the boundary streets within 500 m of the development?	☐	☑
Does the development include a drive-thru facility?	☐	☑

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

5. Summary

Results of Screening	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).



Unit Type	Phase 1	Phase 2	Phase 3	Phase 4A	Phase 4B	Total	
Singles	92	130	69	150	0	441	
Townhomes	191	87	165	205	71	719	
4-6 Storey Medium Density Condos	0	104	111	246	0	461	
High Density Residential	0	0	0	0	0	0	
Mixed Use Residential	0	0	0	0	0	0	
Total Unit Count	283	321	345	601	71	1621	
Commercial (2% of Area)	0.01 ha	0.00 ha	0.00 ha	0.00 ha	0.00 ha	0.01 ha	0.02 ac
Parkland Required ($\frac{1}{300}$ rate)	0.94 ha	1.07 ha	2.52 ha	NA	NA	4.53 ha	11.20 ac
Parkland Required ($\frac{1}{600}$ rate)	NA	NA	0.21 ha	1.00 ha	0.12 ha	1.33 ha	3.29 ac
Total Parkland Required	0.95 ha	1.07 ha	2.73 ha	1.00 ha	0.12 ha	5.88 ha	14.52 ac
Previous Parkland Dedicated	1.60 ha (District Park Dedication) + 1.74 (Landowner Parkland Agreement)					3.34 ha	8.25 ac
Current Parkland Dedicated	0.00 ha	0.99 ha	0.82 ha	2.55 ha	0.00 ha	4.36 ha	10.77 ac
Total Parkland Dedicated	NA					7.70 ha	19.02 ac

Title:

Concept Plan 34

Project:

Abbott's Run

Legend

- 28' Single Family Homes
- 30' Single Family Homes
- 36' Single Family Homes
- 43' Single Family Homes
- Executive Town Homes
- Avenue (B2B) Town Homes
- Rear Lane Town Homes
- 4-6 Storey Medium Density Condos
- High Density Residential
- Mixed Use Blocks
- Mixed Use Block / Park & Ride
- School Facilities
- Parkland
- Open Space
- Natural Feature
- Storm Water Management Pond

No.	Description	Date	By
12	Updated Phase 4B	2025-01-22	K.P
11	Updated Lotting	2025-01-16	E.H

Revisions

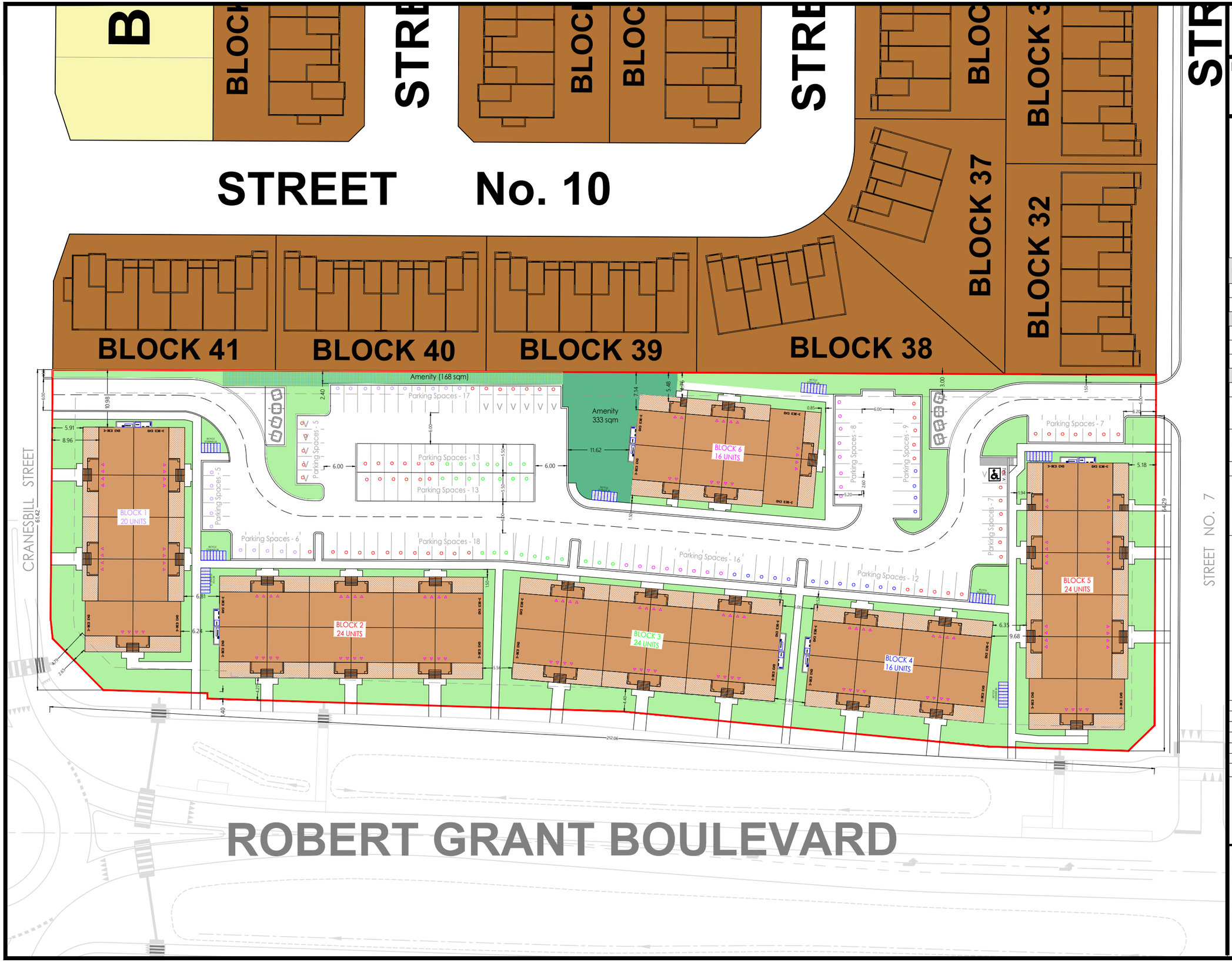
minto Communities

Drawn By: M.M.
Checked By: C.T.

Minto Communities Inc
180 Kent Street,
Ottawa, ON
K1P 0B6

North

Scale: **NTS**



Title:

Concept Plan 42 - Option C

Project:

Abbotts Run - Block 13

Legend

- Site Outline
- Metro Towns - Surface Parked
- Open Space
- Amenity Area
- 12 m Turning Radius for Garbage and Fire

Site Statistics

Gross Site Area	1.39 ha	
Gross Site Density	89.21 u/ ha	
Unit Type	**Unit Count**	
Total Metro Towns	**124**	
3 Bed End Unit	48	
2 Bed Interior Unit	76	
	Required	**Provided**
Total Amenity Space (6 sqm./unit)	744 Sq m.	1,865 Sq m.
Communal Amenity Space (50% of total amenity per unit = min. 3 Sq m./Unit)	372 Sq m.	501 Sq m.
Landscape Requirement	2,085 Sq m.	2,283 Sq m.
Bicycle Parking (0.5 per unit)	62	62
Parking – Resident Parking (1.0 per unit)	124	124
Parking – Visitor Parking (0.1 per unit)	12	12
Parking – Extra Parking	-	-
Parking – **Total Parking Spaces (Units x 1.1)**	**136**	**136**

NOTES:

1. All pathways are 1.5m unless otherwise noted.
2. Each stacked town has an lower unit with a patio (16 sq. m.) and an upper unit with a balcony (6 sq.m.) which are included as private amenity area.
3. Parking requirement for stacked towns is 1.0 per unit for the residents + 0.1 per unit for visitor = total 1.1 per unit.
4. All End units are 1.0m wider to accommodate 3-Bedroom Units. They have been denoted on the plan with text "3-BED END".

No.	Description	Date	By
1	Pathways and Bike parking adjusted	2025-03-28	G.T
0	Drafted For Internal Review	2025-03-18	G.T

Revisions

Drawn By: G.T.
Checked By: C.T.
Minto Communities Inc
180 Kent Street,
Ottawa, ON
K1P 0B6

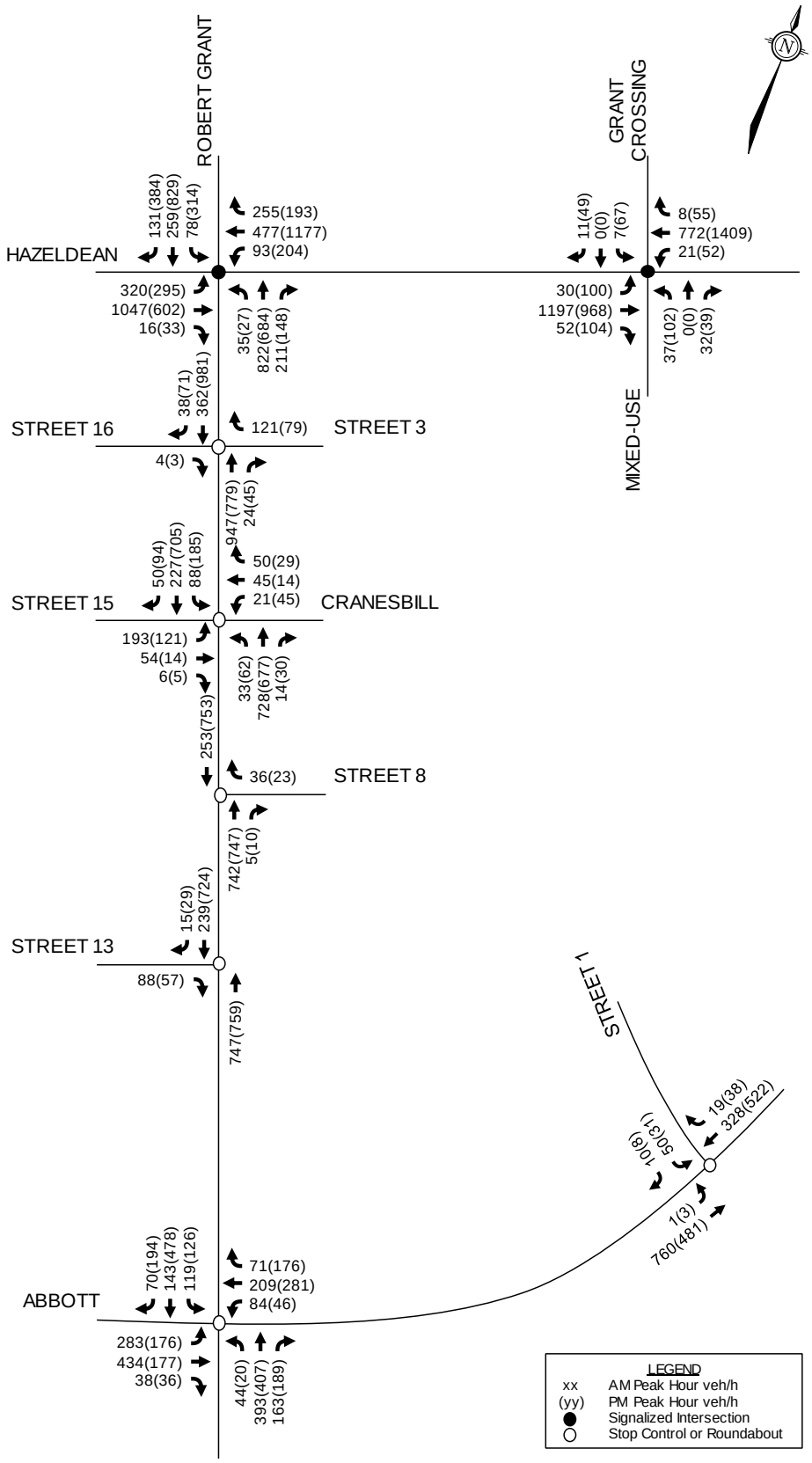
North

Scale: **NTS**

APPENDIX C

CTS Excerpts

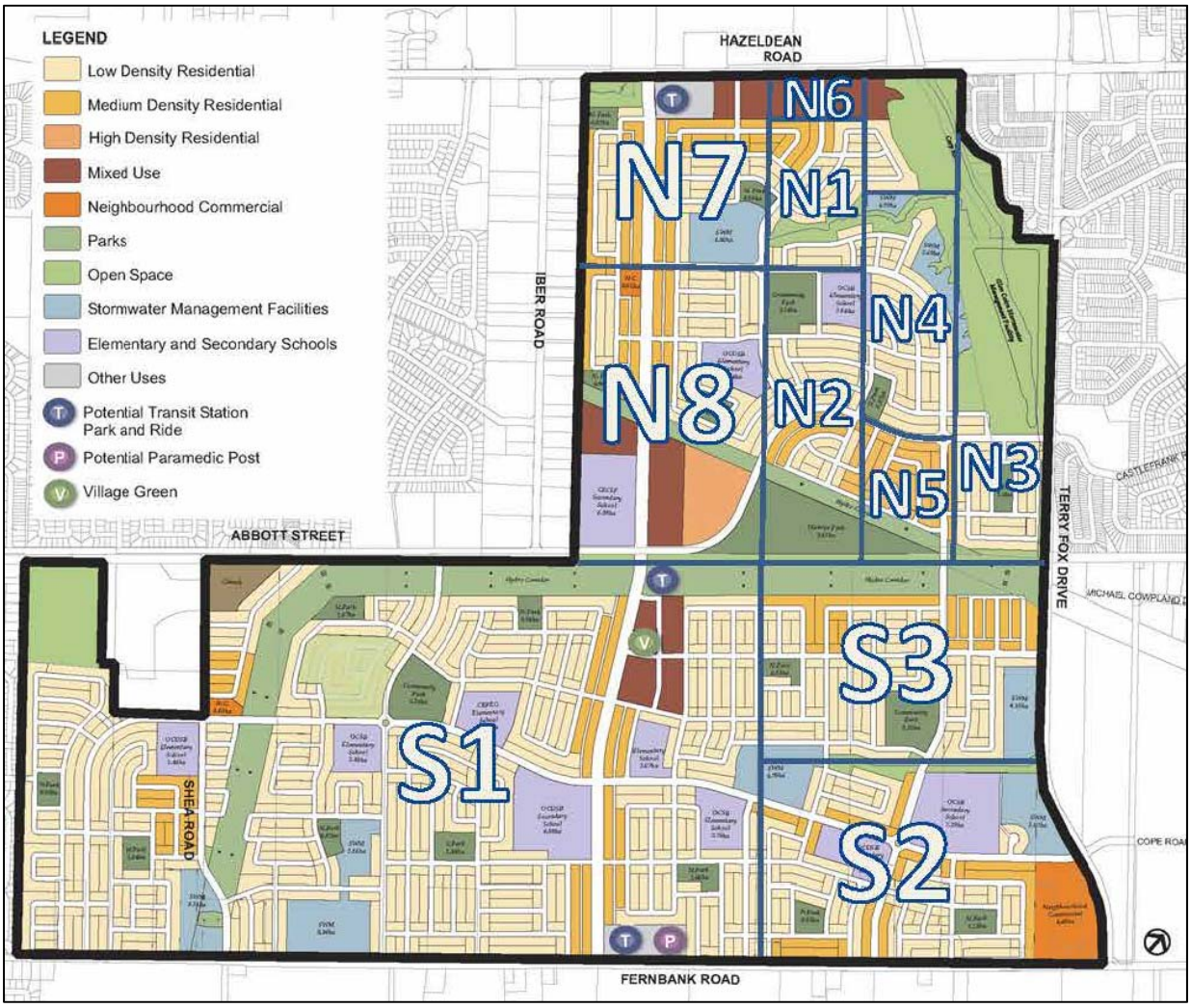
Figure 9: 2030 Total Traffic Volumes (Scenario One)



APPENDIX D

Background Reports

Figure 10
Fernbank Community Traffic Zones



3.4.2 Background Traffic Growth

Consistent with the Fernbank CDP TMP and with other recent transportation studies prepared for development parcels within the Fernbank Community, a 2% annual growth rate was deemed to be appropriate. This rate was then applied to the existing traffic volumes at the study area intersections until the 2025 horizon. In addition, the trips generated by the other areas of the Fernbank Community (i.e. all areas excluding the subject Richcraft site) were added to the boundary road network.

3.4.3 Future Background Traffic Conditions

The build-out horizons for the background developments must recognize the scale of the developments under consideration. An absorption rate of 500 units per year was applied to the background

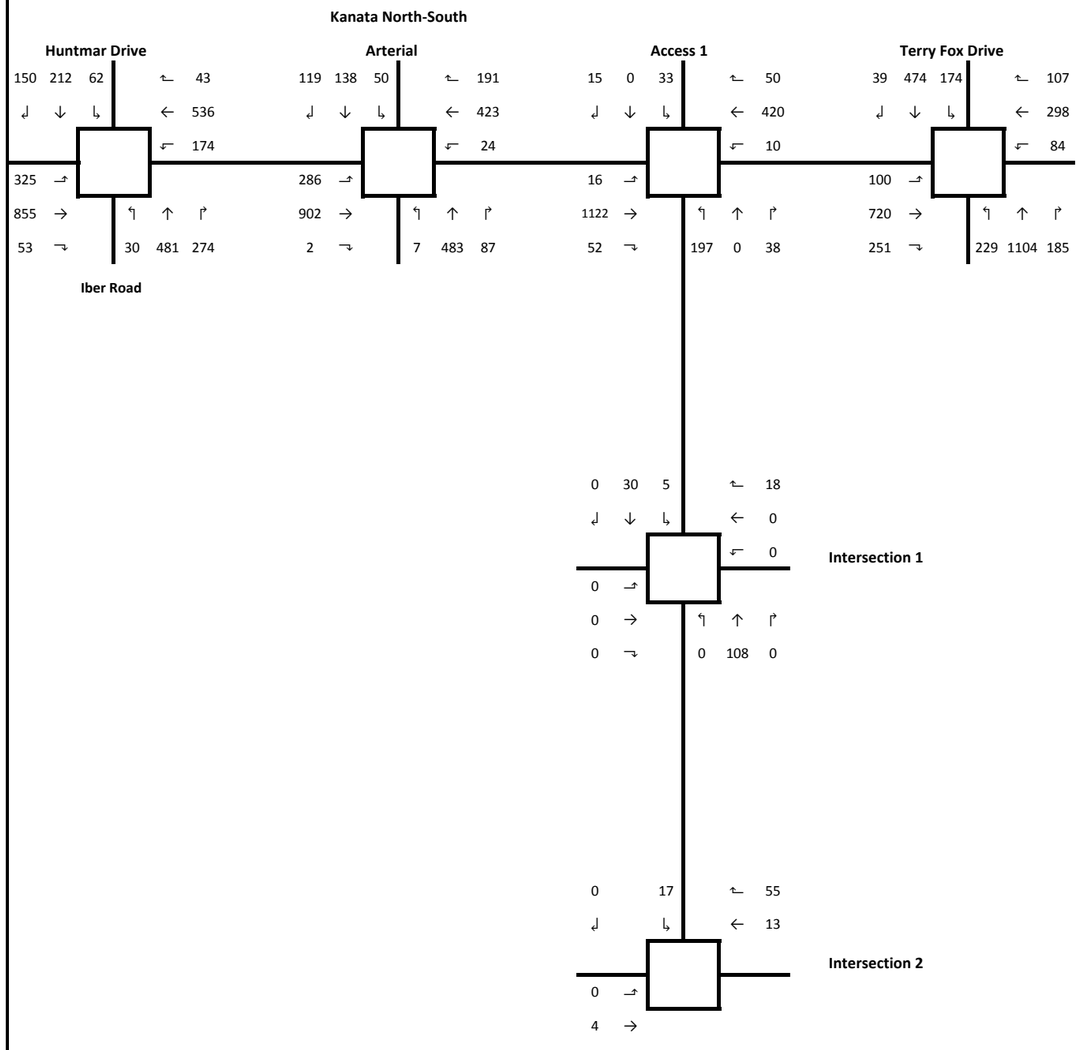
Table 3
Fernbank Community Traffic Generation

Zone	Modes	Split	Morning Peak Hour			Afternoon Peak Hour		
			In	Out	Total	In	Out	Total
N1 (Richcraft)	Auto	55%	29	109	138	113	62	174
	Passenger	15%	8	30	38	31	17	48
	Transit	25%	13	50	63	51	28	79
	Active Modes	5%	3	10	13	10	6	16
	N1 Subtotal (person trips)	100%	53	198	251	205	112	317
N2 (Richcraft)	Auto	55%	30	123	154	125	65	190
	Passenger	15%	8	34	42	34	18	52
	Transit	25%	14	56	70	57	30	87
	Active Modes	5%	3	11	14	11	6	17
	N2 Subtotal (person trips)	100%	55	224	280	227	119	346
N3	Auto	55%	23	69	91	76	44	121
	Passenger	15%	6	19	25	21	12	33
	Transit	25%	10	31	42	35	20	55
	Active Modes	5%	2	6	8	7	4	11
	N3 Subtotal (person trips)	100%	41	125	166	139	80	220
N4	Auto	55%	36	126	162	133	74	207
	Passenger	15%	10	34	44	36	20	57
	Transit	25%	16	57	74	61	34	94
	Active Modes	5%	3	11	15	12	7	19
	N4 Subtotal (person trips)	100%	65	229	294	242	134	377
N5	Auto	55%	24	84	108	89	50	138
	Passenger	15%	6	23	30	24	14	38
	Transit	25%	11	38	49	41	23	63
	Active Modes	5%	2	8	10	8	5	13
	N5 Subtotal (person trips)	100%	43	152	197	162	90	251
N6 (Richcraft)	Auto	55%	3	7	10	6	4	10
	Passenger	15%	1	2	3	2	1	3
	Transit	25%	2	3	5	3	2	5
	Active Modes	5%	0	1	1	1	0	1
	N6 Subtotal (person trips)	100%	6	12	18	10	8	19
N7	Auto	55%	73	281	353	285	153	439

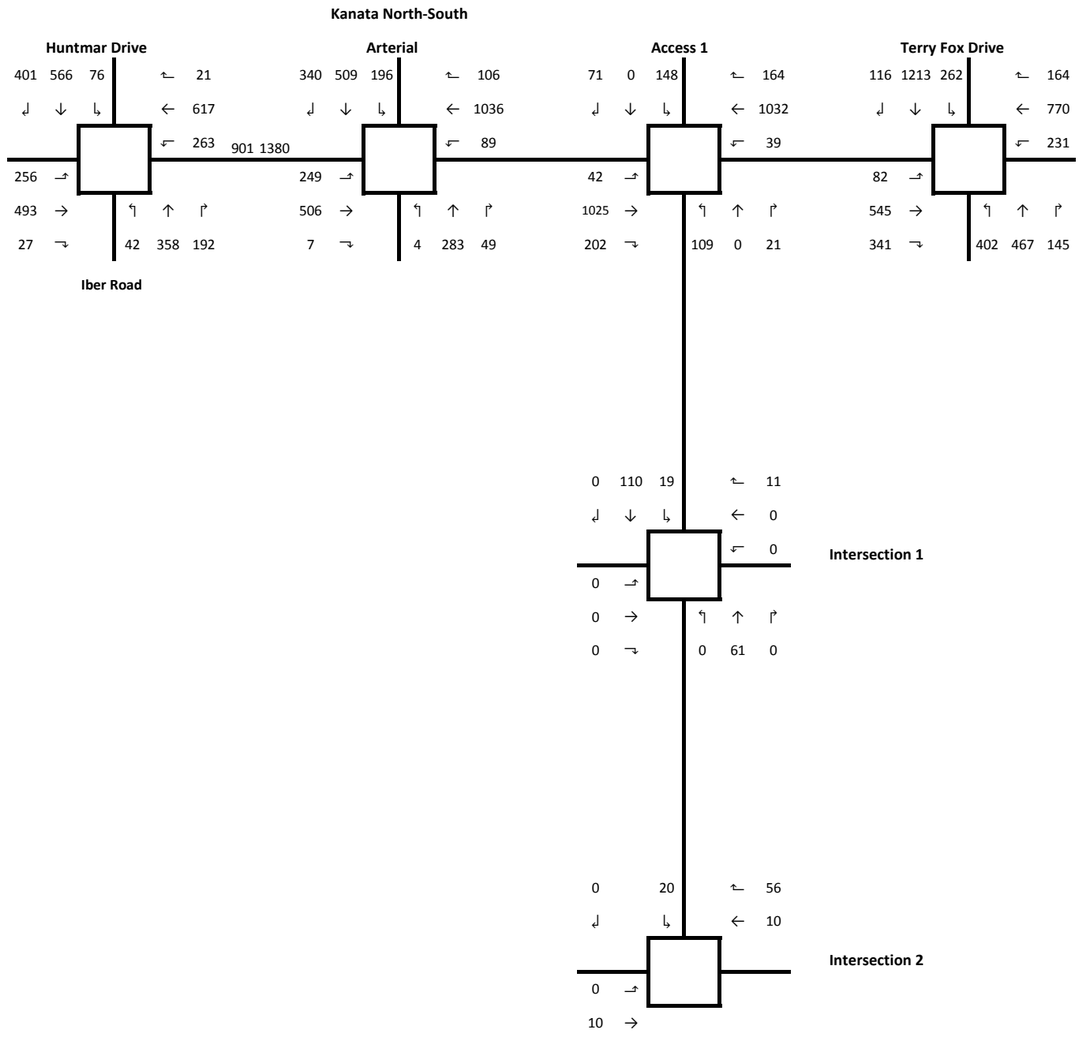
	Passenger	15%	20	77	96	78	42	120
	Transit	25%	33	128	161	130	70	200
	Active Modes	5%	7	26	32	26	14	40
	N7 Subtotal (person trips)	100%	132	510	642	518	278	798
N8	Auto	55%	87	347	435	349	185	535
	Passenger	15%	24	95	119	95	51	146
	Transit	25%	40	158	198	159	84	243
	Active Modes	5%	8	32	40	32	17	49
	N8 Subtotal (person trips)	100%	158	631	790	635	337	972
S1	Auto	55%	503	1604	2108	1756	1009	2765
	Passenger	15%	137	438	575	479	275	754
	Transit	25%	229	729	958	798	459	1257
	Active Modes	5%	46	146	192	160	92	251
	S1 Subtotal (person trips)	100%	914	2917	3833	3193	1835	5028
S2	Auto	55%	91	314	405	334	187	521
	Passenger	15%	25	86	111	91	51	142
	Transit	25%	42	143	184	152	85	237
	Active Modes	5%	8	29	37	30	17	47
	S2 Subtotal (person trips)	100%	166	571	737	607	340	947
S3	Auto	55%	93	321	414	342	191	532
	Passenger	15%	25	87	113	93	52	145
	Transit	25%	42	146	188	156	87	242
	Active Modes	5%	8	29	38	31	17	48
	S3 Subtotal (person trips)	100%	169	583	752	622	347	968
Richcraft Totals	Auto	55%	63	239	302	243	131	375
	Passenger	15%	17	65	82	66	36	102
	Transit	25%	29	109	137	111	60	171
	Active Modes	5%	6	22	27	22	12	34
	Richcraft Subtotals (person trips)	100%	114	434	549	442	239	682
2020 Background Trips (25% Total)	Auto	55%	232	786	1019	841	473	1315
	Passenger	15%	63	214	278	229	129	359
	Transit	25%	106	357	463	382	215	598
	Active Modes	5%	21	71	93	76	43	120

	Subtotal (person trips)	100%	422	1430	1853	1530	860	2390
2025 Background Trips (50% Total)	Auto	55%	464	1572	2038	1682	946	2629
	Passenger	15%	127	429	556	459	258	717
	Transit	25%	211	715	926	765	430	1195
	Active Modes	5%	42	143	185	153	86	239
	Subtotal (person trips)	100%	844	2859	3706	3059	1721	4781
Fernbank Total	Auto	55%	991	3384	4378	3608	2024	5634
	Passenger	15%	270	923	1194	984	552	1536
	Transit	25%	451	1538	1990	1640	920	2561
	Active Modes	5%	90	308	398	328	184	512
	Subtotal (person trips)	100%	1802	6152	7960	6560	3680	10243

AM PEAK



PM PEAK

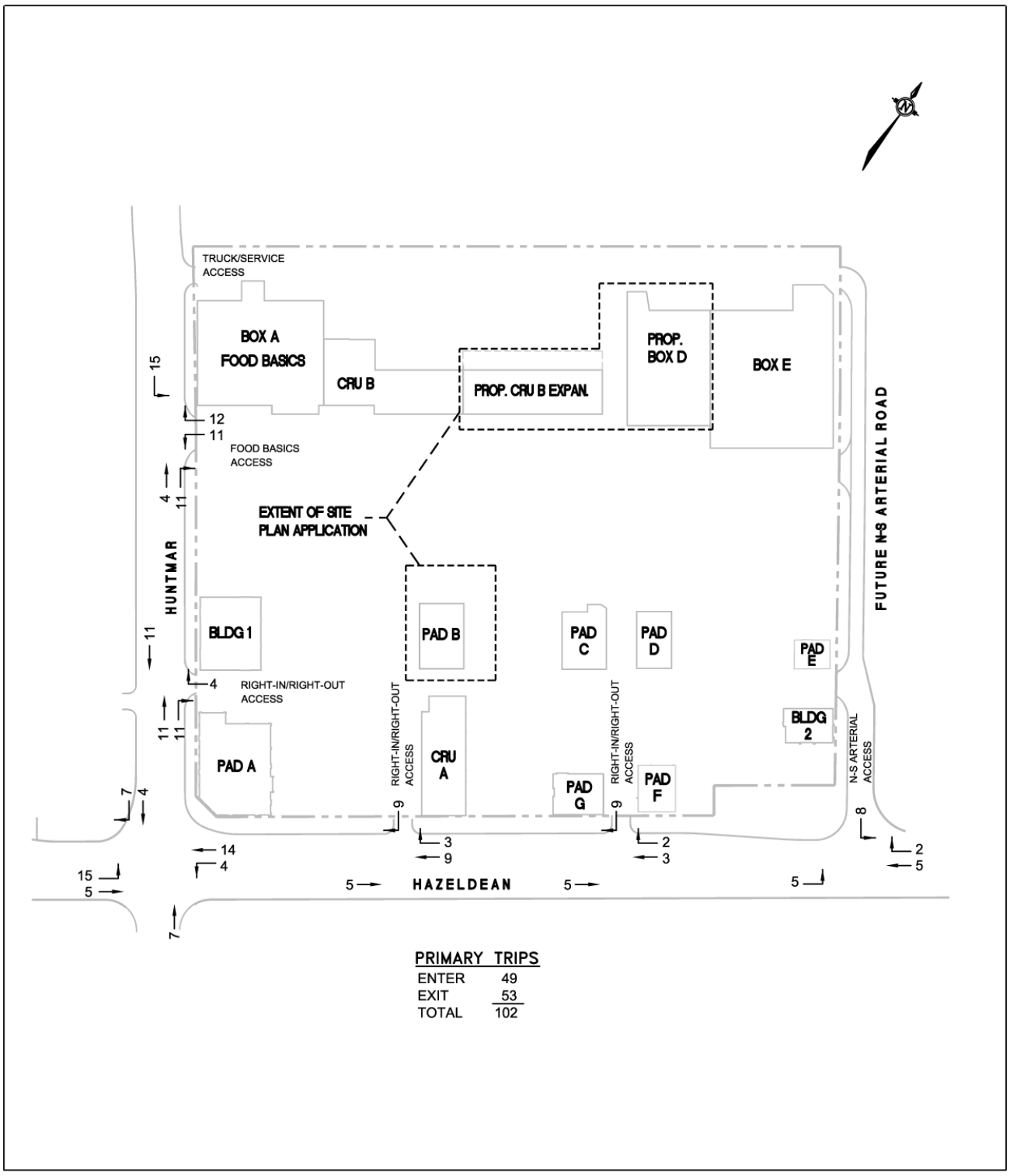


Stantec Consulting Ltd.
1331 Clyde Avenue
ON, Canada K2C 3G4
Tel: (613) 722-4420
www.stantec.com

FIGURE: 14
TITLE: 2025 Ultimate Traffic Volumes

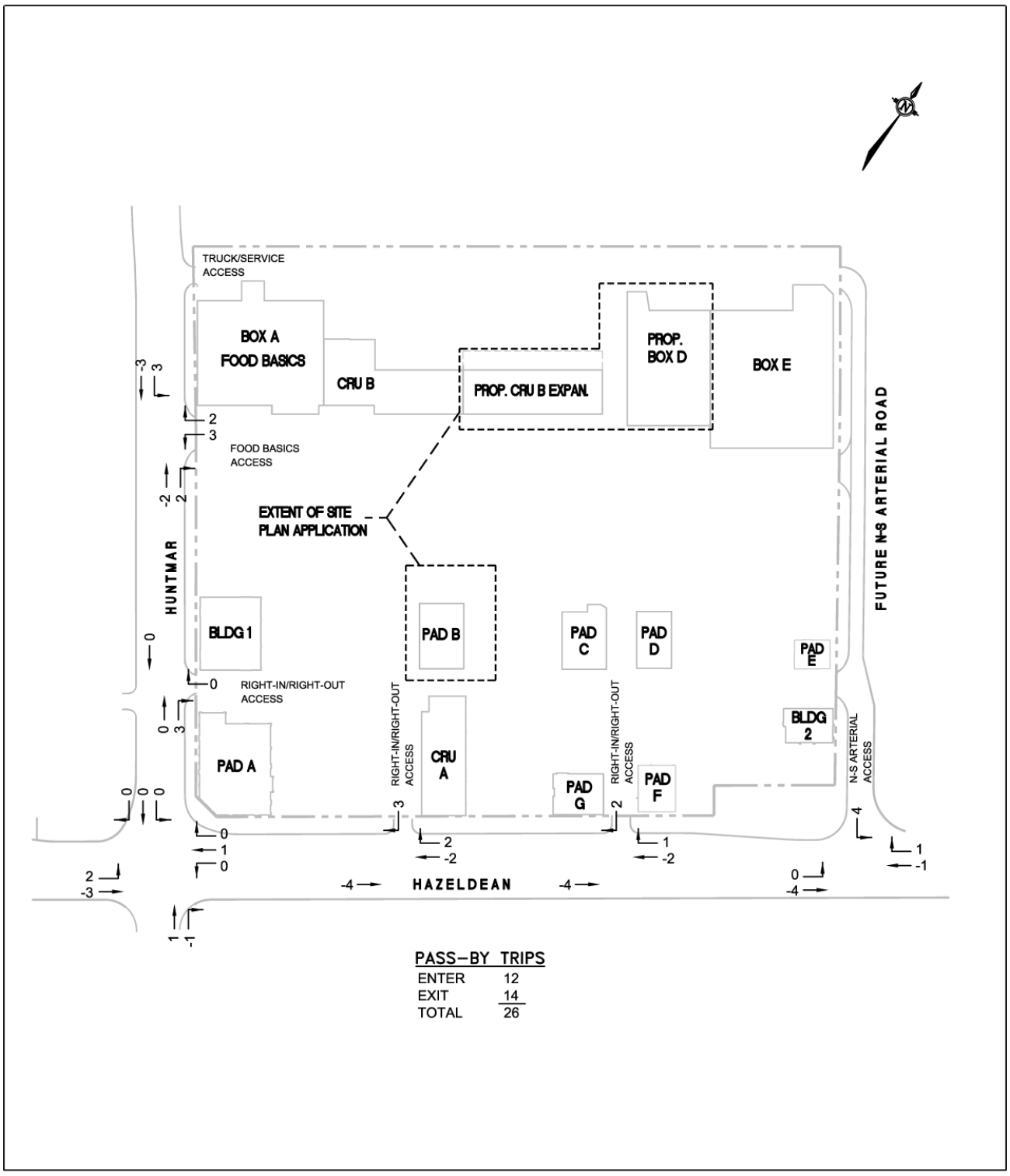
CLIENT: Richcraft Homes
PROJECT: 590 Hazeldean Road

FIGURE 3.1
PEAK PM HOUR SITE GENERATED PRIMARY TRIPS



NOT TO SCALE

FIGURE 3.2
PEAK PM HOUR SITE GENERATED PASS-BY TRIPS

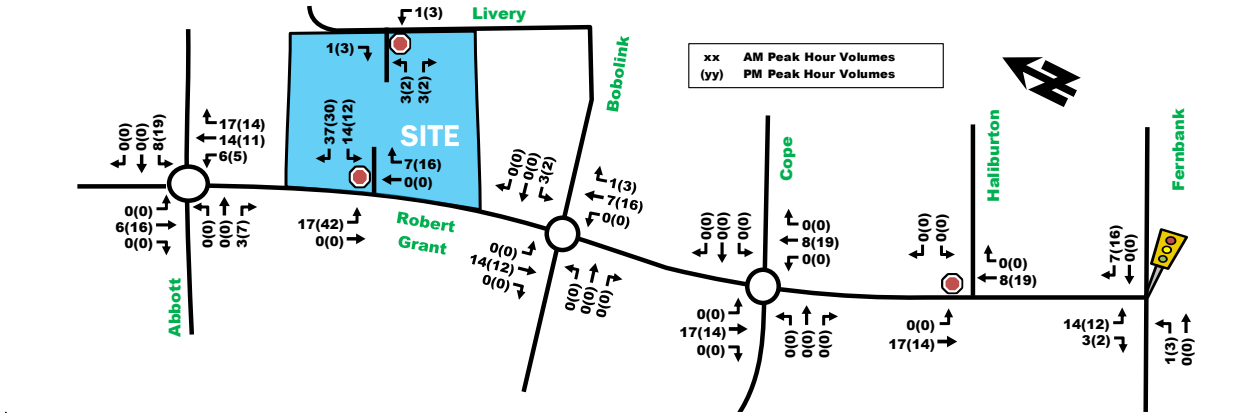


NOT TO SCALE

Figure 2: Proposed Site Plan

The anticipated 'new' auto trips for the proposed development from **Table 8** were then assigned to the road network with the distribution shown above, as shown in **Figure 17**, for the total site-generated traffic for TRANS mode share.

Figure 17: Site-Generated Traffic Using TRANS Mode Shares



3.2. Background Network Traffic

3.2.1. Transportation Network Plans

Refer to **Section 2.1.3**: **Planned Conditions**.

3.2.2. Background Growth and Other Area Developments

The Stittsville district and areas south of the development are still ripe for future growth, with farm fields and empty lots destined for suburban developments. As described in **Section 2.1.3**, there are significant number of new developments proposed. A large amount of these future developments have been documented and will be layered on individually. Some parcels have a general proposed land use but have not been refined or finalized, with no future traffic volumes forecasted yet.

Overall, all the possible developable areas within a 1km radius have been captured in other area developments as shown in **Section 2.1.3**. Today, there are limited transit options available within the study area, promoting driving behaviors. Once the area matures and transit services increase, it is anticipated that less people will drive within the study area. For this reason, a 0% annual growth rate is considered adequate given that all known other area developments within the 1km radius have been accounted for in background volumes and commuting habits will likely change over time, conducive to other modes of transportation that are not driving.

3.2.3. Future Background Volumes

The total number of new other area development vehicle trips projected to use study area intersections have been illustrated in **Figure 18** and **Figure 19** for 2025 and 2030 respectively.

APPENDIX E

Transportation Demand Management Checklists

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

Legend

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

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

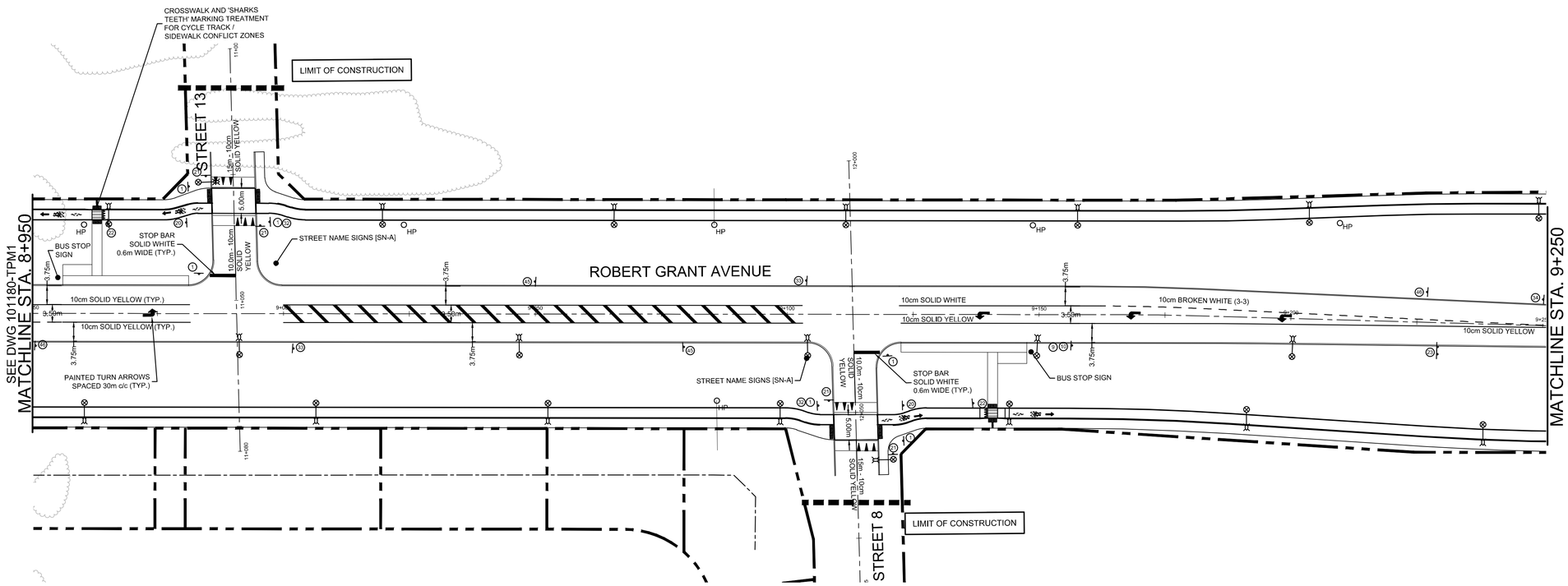
		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
REQUIRED	1.2.3	Provide sidewalks of smooth, well-drained walking surfaces of contrasting materials or treatments to differentiate pedestrian areas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

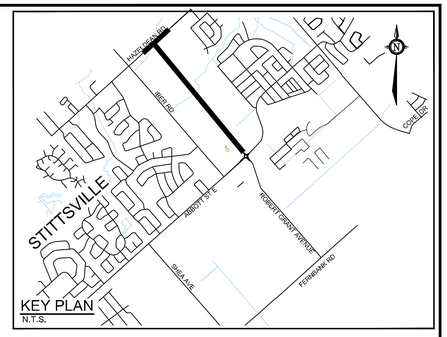
		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	2.	**WALKING & CYCLING: END-OF-TRIP FACILITIES**	
	2.1	**Bicycle parking**	
REQUIRED	2.1.1	Provide bicycle parking in highly visible and lighted areas, sheltered from the weather wherever possible *(see Official Plan policy 4.3.6)*	☒
REQUIRED	2.1.2	Provide the number of bicycle parking spaces specified for various land uses in different parts of Ottawa; provide convenient access to main entrances or well-used areas *(see Zoning By-law Section 111)*	☒
REQUIRED	2.1.3	Ensure that bicycle parking spaces and access aisles meet minimum dimensions; that no more than 50% of spaces are vertical spaces; and that parking racks are securely anchored *(see Zoning By-law Section 111)*	☒
BASIC	2.1.4	Provide bicycle parking spaces equivalent to the expected number of resident-owned bicycles, plus the expected peak number of visitor cyclists	☐
	2.2	**Secure bicycle parking**	
REQUIRED	2.2.1	Where more than 50 bicycle parking spaces are provided for a single residential building, locate at least 25% of spaces within a building/structure, a secure area (e.g. supervised parking lot or enclosure) or bicycle lockers *(see Zoning By-law Section 111)*	☒
BETTER	2.2.2	Provide secure bicycle parking spaces equivalent to at least the number of units at condominiums or multi-family residential developments	☐
	2.3	**Bicycle repair station**	
BETTER	2.3.1	Provide a permanent bike repair station, with commonly used tools and an air pump, adjacent to the main bicycle parking area (or secure bicycle parking area, if provided)	☐
	3.	**TRANSIT**	
	3.1	**Customer amenities**	
BASIC	3.1.1	Provide shelters, lighting and benches at any on-site transit stops	☐
BASIC	3.1.2	Where the site abuts an off-site transit stop and insufficient space exists for a transit shelter in the public right-of-way, protect land for a shelter and/or install a shelter	☐
BETTER	3.1.3	Provide a secure and comfortable interior waiting area by integrating any on-site transit stops into the building	☐

		TDM-supportive design & infrastructure measures: *Residential developments*	Check if completed & add descriptions, explanations or plan/drawing references
	4.	**RIDESHARING**	
	4.1	**Pick-up & drop-off facilities**	
BASIC	4.1.1	Provide a designated area for carpool drivers (plus taxis and ride-hailing services) to drop off or pick up passengers without using fire lanes or other no-stopping zones	☐
	5.	**CARSHARING & BIKESHARING**	
	5.1	**Carshare parking spaces**	
BETTER	5.1.1	Provide up to three carshare parking spaces in an R3, R4 or R5 Zone for specified residential uses *(see Zoning By-law Section 94)*	☐
	5.2	**Bikeshare station location**	
BETTER	5.2.1	Provide a designated bikeshare station area near a major building entrance, preferably lighted and sheltered with a direct walkway connection	☐
	6.	**PARKING**	
	6.1	**Number of parking spaces**	
REQUIRED	6.1.1	Do not provide more parking than permitted by zoning, nor less than required by zoning, unless a variance is being applied for	☒
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐

APPENDIX F

Robert Grant Avenue Pavement Marking and Signage Drawings





LEGEND

(#) PROPOSED SIGNAGE (#) EXISTING SIGNAGE

(1) Ra-1	(2) Rb-1 (60)	(3) Wa-8LR	(4) Wb-2	(5) Wb-3	(6) Rb-41
(7) Wa-11A	(8) Ra-2	(9) Wa-37 (MUTCD)	(10) Wa-7t (30)	(11) Wa-33L	(12) Rb-25(R)
(13) Wa-38 (MUTCD)	(14) Robert Grant South Exit Sign	(15) Robert Grant North Exit Sign			
(16) Robert Grant/Cranesbill Advance Directional Sign	(17) Ra-18	(18) Wc-44LR (TAC)	(19) Rb-21		
(20) Rb-84	(21) Wa-74	(22) Bikes Yield to Pedestrians	(23) Robert Grant/Cranesbill Advance Directional Sign	(24) Rb-25 (L)	
(25) Robert Grant/Abbott Advance Directional Sign	(26) Abbott Street East Exit Sign	(27)	(28)		
(29) Rb-72b	(30) Rb-55	(31) Wa-33R	(32) Rb-70	(33) Wa-13R	(34) Wa-13L
(36) Cranesbill Road Exit Sign	(37) Rb-16	(38) Abbott Street West Exit Sign	(39) Rb-84t (Bilingual)		
(40) Rb-85A	(41) Ra-4T	(42) Ra-5R	(43) Ra-5L	(44) Wc-27R	(45) Wc-37R
(46) Wc-37L	(47) Wa-33LR	(48) Rb-10	(49) Rb-10t	(50) Rb-79R	(51) Robert Grant/XXX Advance Directional Sign
(52) Rb-42	(53) Rb-81	(54) Rb-101	(55) Rb-102	(56) Wc-24t	

NOTE:
THE POSITION OF ALL POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, DETERMINE THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES AND ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

TO BE REVIEWED AND APPROVED BY CITY
NO SIGNAGE OR LINE PAINTING TO BE INSTALLED UNTIL CITY AUTHORITIES HAVE PROVIDED THEIR STAMP OF APPROVAL

No.	REVISION	DATE	BY
5.	ISSUED FOR CONSTRUCTION	2024-01-15	RJD
4.	ISSUED FOR FEA EXECUTION	2023-10-20	RJD
3.	ISSUED FOR CONTRACT AWARD	2023-07-19	RJD
2.	ISSUED FOR TENDER	2023-01-10	RJD
1.	ISSUED FOR MUNICIPAL CONSENT	2022-06-28	RJD

SCALE 1:500 (0 5 10 15 20)

DESIGN TPB
CHECKED RJD
DRAWN TPB
CHECKED JDM
APPROVED RJD

FOR REVIEW ONLY

NOVATECH
Engineers, Planners & Landscape Architects
Suite 200, 240 Michael Cowpland Drive
Ottawa, Ontario, Canada K2M 1P6
Telephone (613) 254-9643
Facsimile (613) 254-5867
Website www.novatech-eng.com

LOCATION
ROBERT GRANT AVENUE EXTENSION
ABBOTT STREET TO HAZELDEAN ROAD

DRAWING NAME
PAVEMENT MARKINGS AND SIGNAGE
ROBERT GRANT AVENUE
STA. 8+950 TO STA. 9+250

PROJECT No. 108180
REV REV # 5
DRAWING No. 108180-TPM2

CITY FILE No. D07-20-21-0001 CITY PLAN No. 17320

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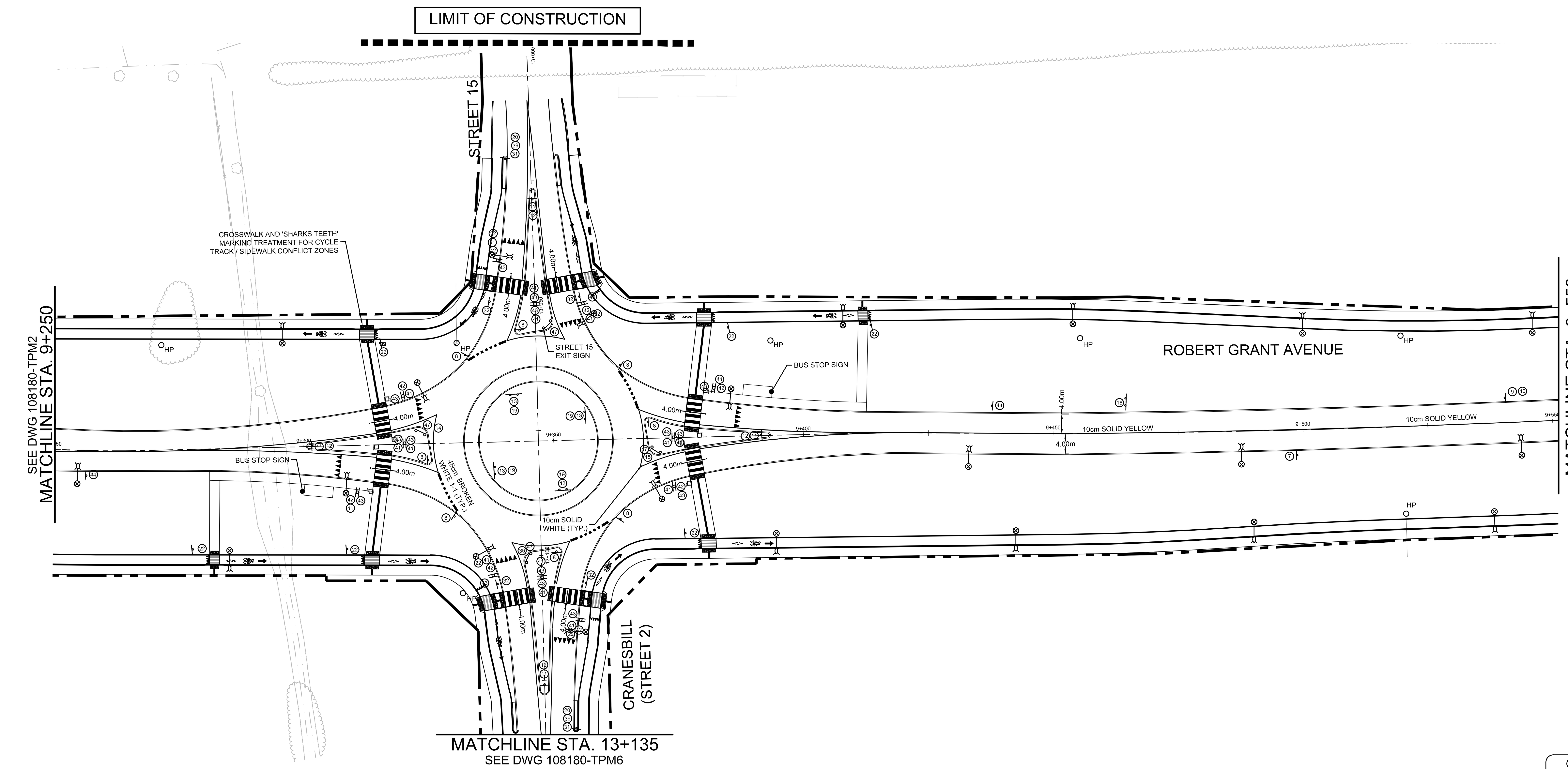

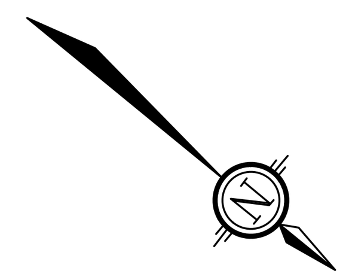

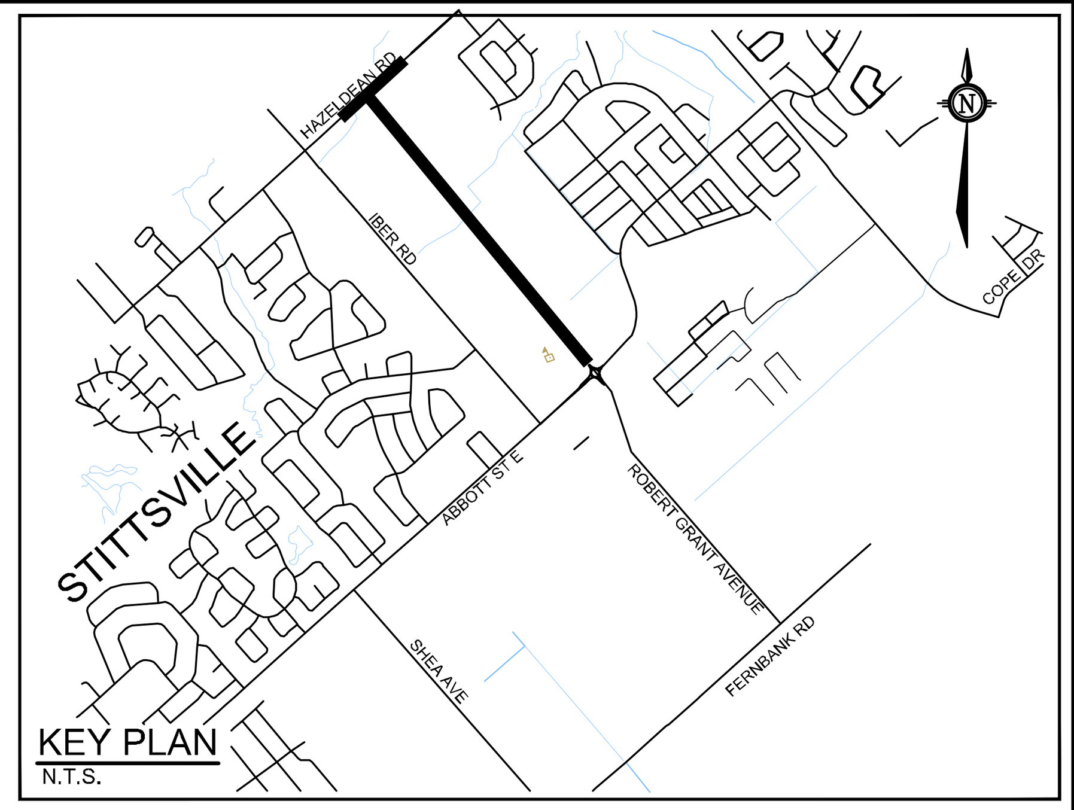

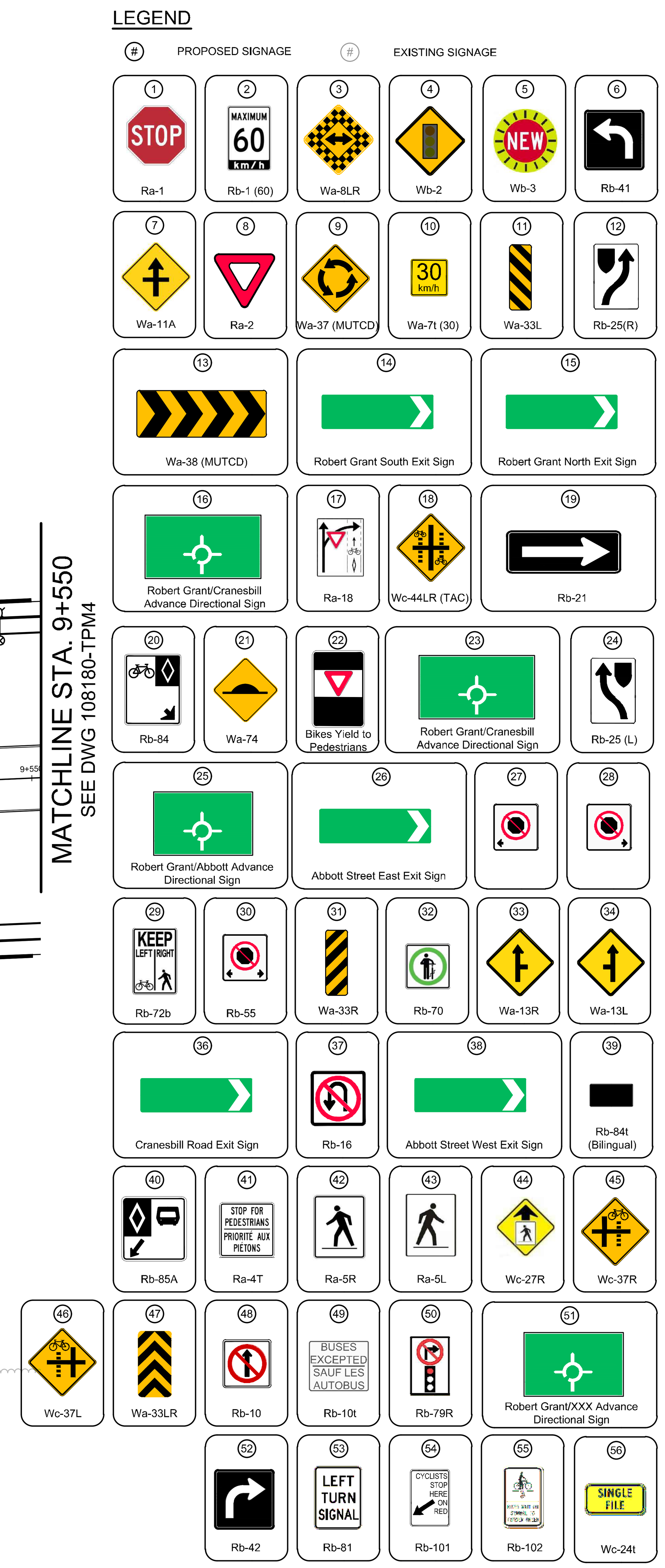

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SCALE
1:500
0 5 10 15 20

DESIGN	TPB
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PROJECT No. 108180
REV REV # 5
DRAWING No. 108180-TPM3

CITY FILE No. D07-20-21-0001 CITY PLAN No. 17320

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APPENDIX G

MMLOS Review

Segment MMLOS Analysis

This section provides a review of the boundary streets Robert Grant Avenue, Cranesbill Road, and Monorail Road using complete streets principles. The *Multi-Modal Level of Service (MMLOS) Guidelines*, produced by IBI Group in October 2015, were used to evaluate the levels of service for each alternative mode of transportation within the study area, based on the targets for areas within 'General Urban Area'. Segments have been analyzed based on existing conditions.

Exhibit 4 of the *MMLOS Guidelines* has been used to evaluate the segment pedestrian level of service (PLOS) of Robert Grant Avenue, Cranesbill Road, and Monorail Road. Exhibit 22 suggests a target PLOS C for all roadways within General Urban Areas. The results of the segment PLOS analysis are summarized in **Table 1**.

Exhibit 11 of the *MMLOS Guidelines* has been used to evaluate the segment bicycle level of service (BLOS) of Robert Grant Avenue, Cranesbill Road, and Monorail Road. Within General Urban Areas, Exhibit 22 suggests a target BLOS B for roadways with a Cross-town Bikeway designation (Robert Grant Avenue) and a LOS D elsewhere (Cranesbill Road and Monorail Road). The results of the segment BLOS analysis are summarized in **Table 2**.

As the study area is currently not served by any transit routes and since no synchro analysis was performed as part of this study, a TLOS review was not completed.

Exhibit 20 of the *MMLOS Guidelines* has been used to evaluate the segment truck level of service (TkLOS) of Robert Grant Avenue, Cranesbill Road, and Monorail Road. Within General Urban Areas, Exhibit 22 suggests a target TkLOS E for arterial roadways with no truck route designation (Robert Grant Avenue) and does not suggest a target for non-arterial roadways with no truck route designation. The results of the segment TkLOS analysis are summarized in **Table 3**.

Table 1: PLOS Segment Analysis

Sidewalk Width	Boulevard Width	Avg. Daily Curb Lane Traffic Volume	Presence of On-Street Parking	Operating Speed[1]	PLOS
Robert Grant Avenue (east side, Cranesbill Road to Monorail Road)					
> 2.0m	> 2.0m	> 3,000 vpd	No	> 60 km/h	**D**
Robert Grant Avenue (west side, Cranesbill Road to Monorail Road)					
> 2.0m	> 2.0m	> 3,000 vpd	No	> 60 km/h	**D**
Cranesbill Road (north side, Robert Grant Avenue to end of subdivision)					
> 2.0m	> 2.0m	< 3,000 vpd	N/A	< 50 km/h	A
Cranesbill Road (south side, Robert Grant Avenue to end of subdivision)					
> 2.0m	> 2.0m	< 3,000 vpd	N/A	< 50 km/h	A
Monorail Road (north side, Robert Grant Avenue to end of subdivision)					
> 2.0m	0m	< 3,000 vpd	N/A	< 50 km/h	B
Monorail Road (south side, Robert Grant Avenue to end of subdivision)					
> 2.0m	0m	< 3,000 vpd	N/A	< 50 km/h	B

1. Operating speed taken as the speed limit plus 10 km/h.

Table 2: BLOS Segment Analysis

Road Class	Type of Route	Type of Bikeway	Travel Lanes	Operating Speed	BLOS
Robert Grant Avenue (both sides, Cranesbill Road to Monorail Road)					
Arterial	Crosstown	Cycle Track	2	60 km/h	A
Cranesbill Road (both sides, Robert Grant Avenue to end of subdivision)					
Collector	N/A	Mixed Traffic	2	< 40 km/h	B
Monorail Road (both sides, Robert Grant Avenue to end of subdivision)					
Local	N/A	Mixed Traffic	2	< 40 km/h	B

Table 3: TkLOS Segment Analysis

Curb Lane Width	Number of Travel Lanes Per Direction	TkLOS
Robert Grant Avenue (both sides, Cranesbill Road to Monorail Road)		
> 3.7m	1	B
Cranesbill Road (both sides, Robert Grant Avenue to end of subdivision)		
> 3.7m	1	B
Monorail Road (both sides, Robert Grant Avenue to end of subdivision)		
> 3.7m	1	B