Memo

SUBJECT
298 Axis Way (Trails Edge Block 140)
Transportation Brief

DATE
December 3, 2024

DEPARTMENT
Transportation Engineering

COPIES TO
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David Hook - Arcadis

TO
Kiara Gonzales, Land Development Manager
Minto Communities Inc.

OUR REF
\147936 Trailsedge Block 140 - Internal Documents\6.0_Technical\6.23_Traffic\03_Reports

PROJECT NUMBER
147936

NAME
Eric McLaren
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Arcadis has been retained by Minto Communities Inc. to prepare a Transportation Brief in support of a proposed residential townhome development located to be located in the northwest quadrant of the Fern Casey Street & Axis Way intersection in Ottawa, Ontario. The municipal address of the site is now referred to as 298 Axis Way (formerly 6371 Renaud Road).

The following topics are discussed in this report:

1. Overview of the Proposed Development
2. Transportation Context
3. Trip Generation Estimate
4. Internal Traffic and Pedestrian Circulation
5. Site Access Review
6. Parking Supply Review

Proposed Development

The proposed development is located south of Brian Coburn Boulevard, north of Axis Way and west of Fern Casey Street. The municipal address of the property is 298 Axis Way (formerly known as 6371 Renaud Road).

It is anticipated that the proposed development will be constructed in a single phase.

Table 1 summarizes the proposed land uses included in this development.

Table 1 – Proposed Land Use

Land Use	Size
Stacked Townhomes	160 units
Back-to-Back Townhomes	40 units

The draft site plan for the proposed development is illustrated in **Figure 1** and has been provided in **Appendix A** as well.

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December 3, 2024

Figure 1 Proposed Development

Access to the site will be provided via a right-in/right-out access on Fern Casey Street, approximately 100m north of Axis Way/Couloir Road, and a full-movement access on Axis Way, approximately 200m west of Fern Casey Street. Approximately 25m of the access on Axis Way has already been partially constructed in a municipal road allowance with a 20m right-of-way, 8.5m of pavement width and no sidewalk. Despite the site having connectivity via a public road allowance, the internal road network will be private.

A total of 240 resident vehicle parking spaces (80 for the back-to-back townhouse dwellings and 160 for the stacked townhouse dwellings), 16 visitor vehicle parking spaces, and 80 bicycle parking spaces will be provided.

A TIA Screening Form was completed for the proposed development and has been provided in **Appendix B**. The initial screening concluded that, although the trip generation trigger is met, the overall traffic generation is not expected to have a significant impact on the operation of the adjacent high-capacity roundabout at Brian Coburn & Fern Casey. Further justification for the reduced scope is provided in the trip generation section of the report. The Location trigger was not satisfied, but since the Safety trigger was satisfied, a review of the site's localized impact on the adjacent street network is warranted and thus reviewed as part of this reduced-scope Transportation Brief.

Transportation Network Context

Existing Conditions

In the vicinity of the proposed development there are the following streets:

- **Brian Coburn Boulevard** is a two-lane urban arterial road which extends east-west from Navan Road to Trim Road and has a posted speed limit of 70 km/h. Adjacent to the site, the road has a multi-use path on the south side and an on-street bike lane on the north side.
- **Fern Casey Street** is a two-lane urban collector road which extends north-south from Brian Coburn Boulevard to Renaud Road and has a posted speed limit of 60 km/h. Concrete sidewalks are provided on both sides of the street and there are on-street bike lanes north of Axis Way/Couloir Road.
- **Axis Way** is a two-lane urban local road which extends east-west from Compass Street to Fern Casey Street and has a posted speed limit of 40 km/h. There is a concrete sidewalk on the north side and an asphalt path on the south side.
- **Couloir Road** is a two-lane urban local road which extends east-west from Fern Casey Street to Ascender Avenue and has an assumed speed limit of 40 km/h. Similar to Axis Way, there is a concrete sidewalk on the north side and an asphalt path on the south side.

The proposed development is located a 500m-600m walking distance from Collège catholique Mer Bleue and within a 400m-500m walking distance to two parks. The nearest bus stops to the proposed development are located at the Fern Casey & Axis/Couloir intersection. The nearest pedestrian crossing of Fern Casey Street is located at Brian Coburn Boulevard, however, making the walking route to the bus stop on the east side of Fern Casey Street slightly circuitous.

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Traffic volumes at the intersections of Brian Coburn & Fern Casey and Fern Casey & Axis/Couloir were collected on October 9, 2024. **Figure 2** illustrates existing traffic volumes at these two intersections.

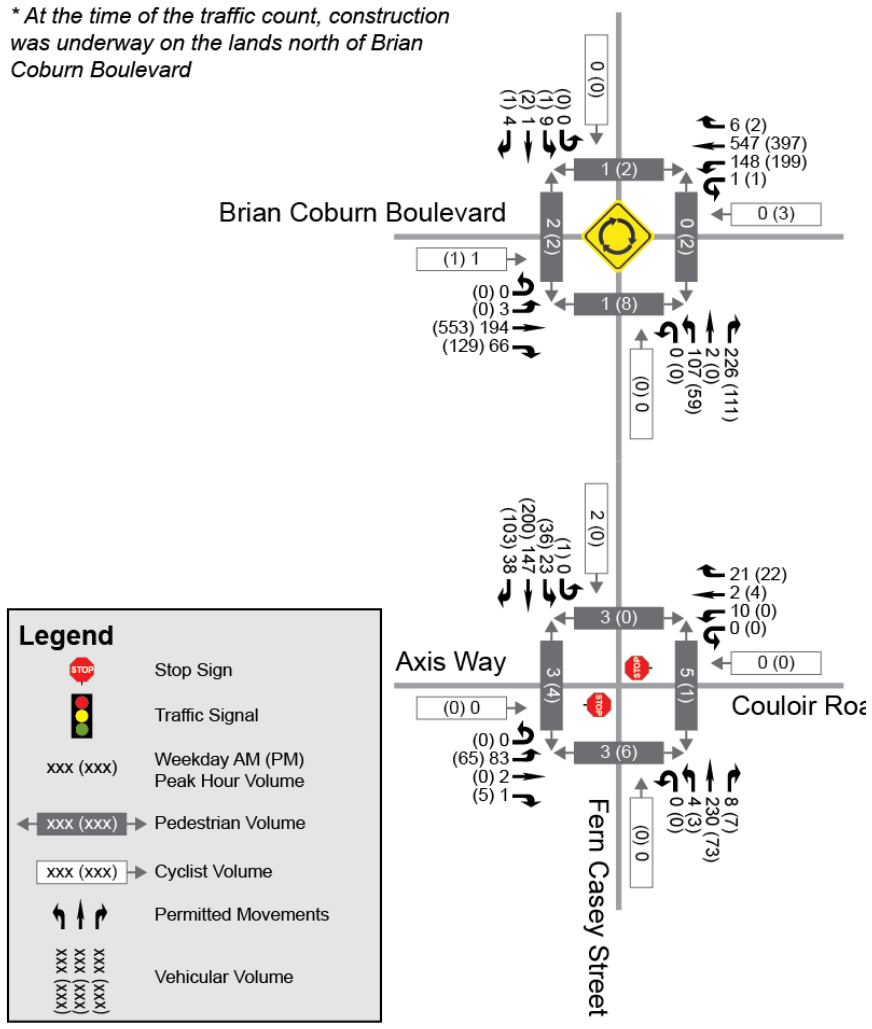

Figure 2 Existing Traffic

The lane configuration and traffic control at the intersections of Brian Coburn & Fern Casey and Fern Casey & Axis/Couloir is shown in **Figure 3**.

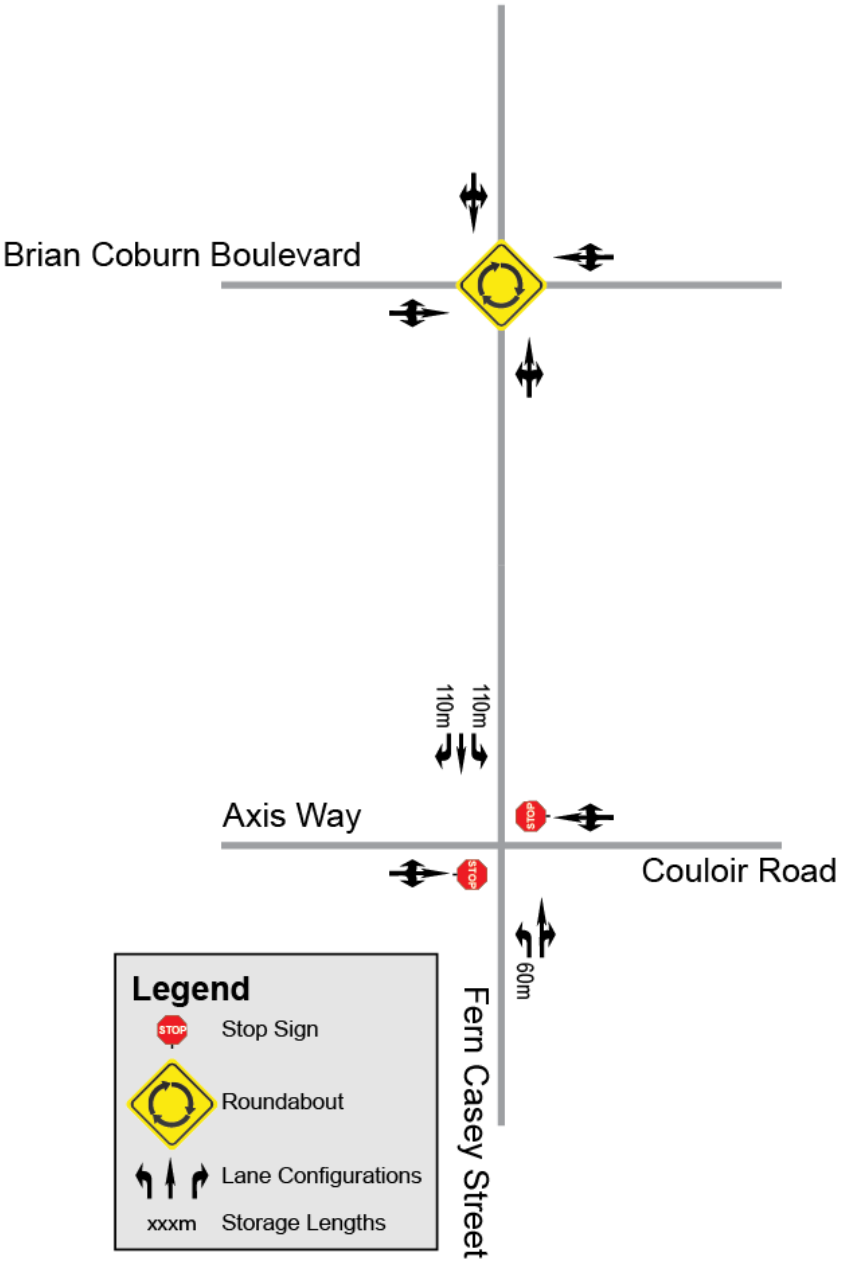

Figure 3 Existing Lane Configurations and Traffic Controls

Intersection capacity analysis was completed to assess traffic operations under Existing Traffic conditions and the results are summarized in **Table 2** below. Detailed intersection capacity analysis reports have been provided in **Appendix C**.

Table 2 Intersection Capacity Analysis Results: Existing Traffic

Intersection	AM Peak Hour (PM Peak Hour)		Lane Group	AM Peak Hour (PM Peak Hour)				Storage Length
	Intersection Delay	Intersection LOS		Delay	LOS	v/c Ratio	95th Percentile Queue	
Fern Casey & Axis/Couloir (Two-Way Stop Control)	15.0s (12.9s)	C (B)	NBL	7.8s (8.4s)	A (A)	0.00 (0.00)	0.0m (0.0m)	60m
			NBT	- (-)	- (-)	- (-)	- (-)	-
			EBTRL	15.0s (12.9s)	C (B)	0.21 (0.15)	5.6m (3.5m)	-
			WBTRL	11.4s (9.6s)	B (A)	0.06 (0.04)	1.4m (0.7m)	-
			SBL	8.1s (7.5s)	A (A)	0.02 (0.03)	0.7m (0.7m)	110m
			SBT	- (-)	- (-)	- (-)	- (-)	-
			SBR	- (-)	- (-)	- (-)	- (-)	110m
Brian Coburn & Fern Casey (Roundabout)	9.6s (11.1s)	A (B)	NBL	7.2s (8.2s)	A (A)	0.36 (0.27)	15.1m (8.9m)	-
			NBT	8.9s (8.0s)	A (A)	0.36 (0.27)	15.1m (8.9m)	-
			NBR	7.2s (8.1s)	A (A)	0.36 (0.27)	15.1m (8.9m)	-
			WBL	11.9s (8.6s)	B (A)	0.66 (0.53)	47.2m (32.0m)	-
			WBT	11.9s (8.6s)	B (A)	0.66 (0.53)	47.2m (32.0m)	-
			WBR	13.9s (8.6s)	B (A)	0.66 (0.53)	47.2m (32.0m)	-
			SBL	13.2s (5.7s)	B (A)	0.05 (0.01)	1.3m (0.3m)	-
			SBT	7.4s (8.5s)	A (A)	0.05 (0.01)	1.3m (0.3m)	-
			SBR	10.7s (5.7s)	B (A)	0.05 (0.01)	1.3m (0.3m)	-
			EBL	9.1s (14.1s)	A (B)	0.28 (0.70)	10.9m (86.0m)	-
			EBT	6.1s (14.1s)	A (B)	0.28 (0.70)	10.9m (86.0m)	-
			EBR	6.3s (14.1s)	A (B)	0.28 (0.70)	10.9m (86.0m)	-

The results of the intersection capacity analysis indicate that both intersections are operating at an acceptable Level of Service (i.e., LOS ‘E’ or better) under Existing Traffic conditions.

Additionally, the projected queueing on the southbound approach of the Fern Casey & Axis/Couloir intersection is negligible. At this time, no site access blockages are to be expected.

Planned Conditions

The Cumberland Transitway is a bus rapid transit (BRT) facility which is expected to extend from the Blair Light Rail Transit (LRT) Station to Frank Kenny Road which will have a station located at the intersection of Brian Coburn Boulevard and Fern Casey Street. **Figure 2** illustrates the location of the proposed development relative to this future BRT facility. The 2024 Development Charges Background Study (Hemson, July 2024) suggests that this BRT facility will be constructed between 2031 and 2033. As such, in the long term the proposed development will be located immediately adjacent to a transitway station.

Figure 4 Ultimate Transit Network
(Source: City of Ottawa Official Plan Schedule C2, accessed 2024-11-20)

It should be noted that there are currently no plans for any roadway widenings or improvements to pedestrian/cycling facilities within the vicinity of the proposed development.

Adjacent Developments

In vicinity of the proposed development there are two future developments of significance:

- The Trailsedge Phase 5 subdivision is located to the north of Brian Coburn Boulevard and will include a total of 2,040 residential dwellings of various formats (single family, townhouses and apartments) and an employment area which will accommodate a projected 830 jobs. Buildout of this development will occur over a long timeframe with Phase 1 completion anticipated for 2037 and full buildout in 2047. Access to this subdivision would be provided via the future Vanguard & Mer Bleue intersection, a future extension of Frank Bender Street, a roadway connection to development to the west, and the Brian Coburn & Fern Casey roundabout. This development is expected to contribute traffic to Brian Coburn Boulevard and the future segment of Fern Casey Street north of Brian Coburn Boulevard but is not anticipated to contribute traffic on the existing portion of Fern Casey Street adjacent to the site. The TIA for this subdivision indicates that the Brian Coburn & Fern Casey roundabout is expected to operate at LOS ‘B’ in 2047 as a two-lane roundabout.
- In the southwest quadrant of the Fern Casey & Axis/Couloir intersection is an undeveloped block zoned I1A Minor Institutional. There is therefore the potential for a school to be constructed in this block which will contribute traffic to the Fern Casey Street & Axis Way intersection. At this time, there is no active site plan application for this block.

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December 3, 2024

Trip Generation

The peak period person-trip generation of the site has been estimated using appropriate rates from the 2020 TRANS Trip Generation Manual. The resulting peak period (7-9:30am and 3:30-6pm) trip generation is summarized in **Table 3**.

Table 3 - Peak Period Person Trips

Land Use	Size	AM Peak Period			PM Peak Period		
		In	Out	Total	In	Out	Total
Townhomes	40 units	16	38	54	35	28	63
Stacked Townhomes	160 units	40	88	128	84	60	144

The existing mode share distributions for multi-unit low-rise and high-rise[1] development in Orleans is summarized in **Table 4**.

Table 4 - Existing Mode Share Distributions

Travel Mode	Multi-Unit Low Rise		Multi-Unit High-Rise	
	AM Peak Period	PM Peak Period	AM Peak Period	PM Peak Period
Auto Driver	47%	51%	54%	61%
Auto Passenger	15%	19%	7%	13%
Transit	29%	24%	29%	21%
Bicycle	1%	1%	0%	0%
Walk	9%	6%	10%	6%

It should be noted that ultimately the transit mode share in the area is expected to increase significantly once rapid transit is implemented via the Cumberland Transitway along the Brian Coburn corridor.

[1] The 2020 TRANS Trip Generation Manual defines low-rise as multi-unit housing with two or fewer storeys and high-rise as multi-unit housing with three or more storeys.

The peak period person-trips from **Table 3** have been subdivided by mode based on the existing mode share distributions from **Table 4** and converted to peak hour person-trips using the conversion factors from the 2020 TRANS Trip Generation Manual. The resulting peak hour person-trips by mode are summarized in **Table 5**.

Table 5 - Peak Hour Trips by Mode

Travel Mode	AM Peak Period			PM Peak Period		
	In	Out	Total	In	Out	Total
Auto Driver	**14**	**31**	**45**	**30**	**22**	**52**
Auto Passenger	2	6	8	8	6	14
Transit	9	20	29	12	9	21
Bicycle	0	0	0	0	0	0
Walk	3	7	10	4	3	7
Total	**28**	**64**	**92**	**54**	**40**	**94**

The June 2023 revisions to the TIA Guidelines indicate that intersection capacity analysis and transit capacity analysis are only required for sites generating over 75 auto and transit trips, respectively. As such, the above trip generation results confirm that reduced scope of this study is justified.

Internal Circulation Review

Within the proposed development, a comprehensive pedestrian network will be provided with sidewalks provided:

- On all sides of the stacked townhouse buildings;
- On both sides of Street 1 (east of Street 2 only), Street 3, Street 4, and Street 5 and
- On one side of Street 1 (west of Street 2 only).

Active transportation connectivity is oriented to the northeast area of the site to the Brian Coburn/Fern Casey intersection where multi-modal transportation facilities exist or are planned. Several direct sidewalk connections will be provided to existing pedestrian facilities on Brian Coburn Boulevard and Fern Casey Street.

The TDM-Supportive Development Design and Infrastructure Checklist was completed and is provided in **Appendix D**. Key elements that will be provided include: providing direct sidewalk connections to Brian Coburn Boulevard and Fern Casey Street, locating buildings close to the street, and providing bicycle parking.

As noted previously, there are two parks and a school located within a relatively short walking distance of the site. The nearest bus stops are located at the intersection of Fern Casey Street and Axis Way/Couloir Road, placing all residents well within 200m walking distance to transit. The site is located directly adjacent to the future Cumberland Transitway station at the intersection of Brian Coburn Boulevard and Fern Casey Street.

Given the site's proximity to a future Cumberland Transitway station, no post-development TDM program is currently proposed at this time as it is expected that proximity to transit will be sufficient to encourage low auto usage. A blank copy of the City of Ottawa's TDM Measures Checklist is provided in **Appendix D** for reference.

Swept path analysis was undertaken to confirm the functionality of the site using a fire truck, a front-loading waste collection vehicle, and a medium single-unit (MSU) truck. The results of the swept path analysis are provided in **Appendix E**.

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December 3, 2024

Site Access Review

Sightlines

The Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads indicates that the minimum intersection sight distance required for a single-unit truck to safely turn right from the site access on Fern Casey Street is 155m. This is based on an assumed operating speed of 60 km/h. It is not expected that operating speeds will exceed 60 km/h adjacent to the site access due to the proximity of the Brian Coburn & Fern Casey roundabout and the relatively low operating speeds within the roundabout.

Figure 5 illustrates the sightline towards the north. The approximate location of the nearest proposed building has been included in the sightline assessment to ensure that the building itself wouldn't block sightlines. All other buildings are set back further from Fern Casey Street and are therefore not a concern.

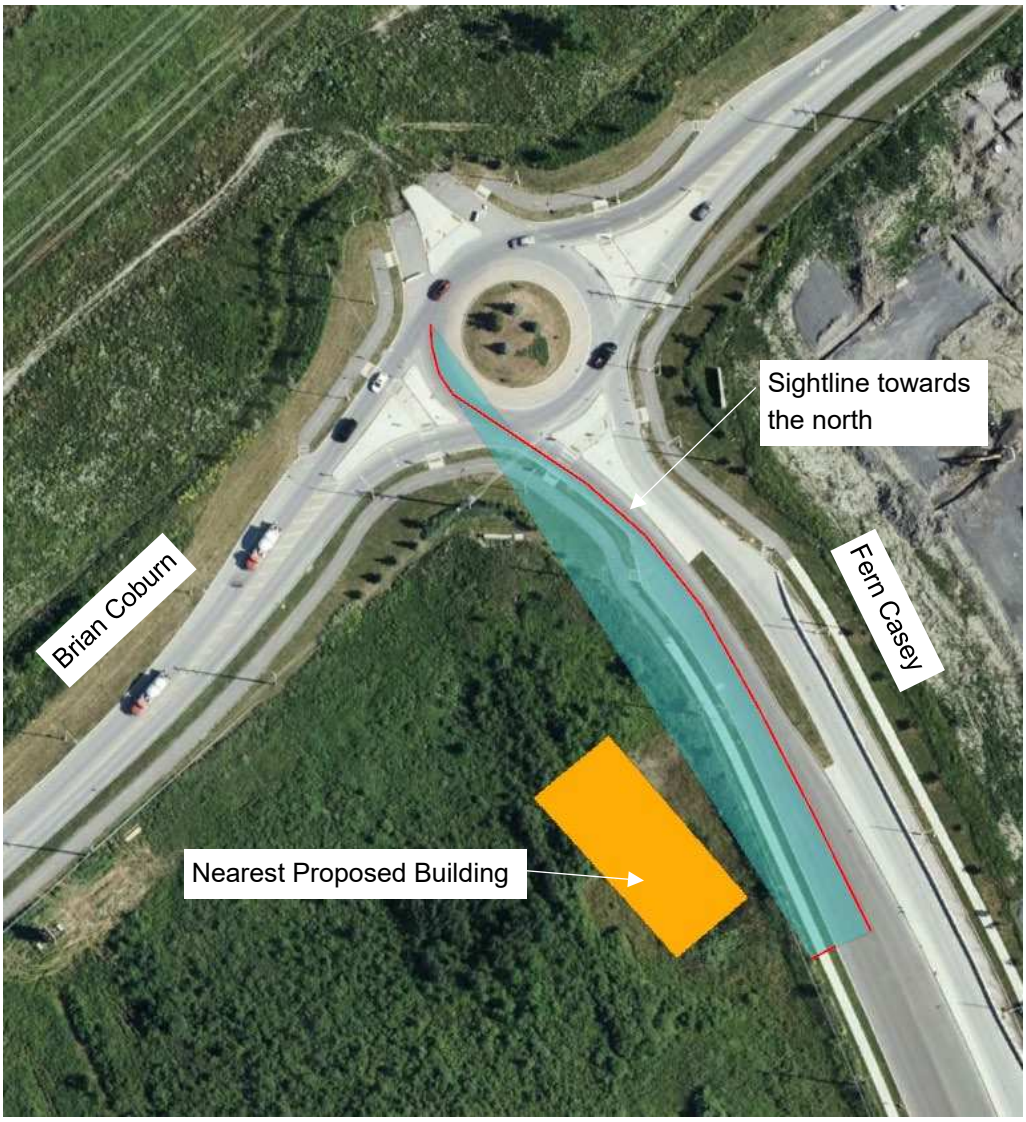

Figure 5 Intersection Sight Distance

Note: The area north of the site access has now been cleared of any vegetation that may obstruct driver sightlines.

The sightline towards the north also extends into the Brian Coburn & Fern Casey roundabout. The sightline requirement of 155m is based on an assumed vehicle speed of 60 km/h. Vehicles within the roundabout, however, will be travelling much slower than 60 km/h and therefore it is not necessary for the driver's view from the site access to extend beyond the roundabout.

The site access on Axis Way has already been constructed and is located on a straight road with a presumed low operating speed. There are no sightline issues at this site access.

Corner Clearances

The site provides two points of vehicular access: one on Fern Casey Street, and one on Axis Way. Based on the magnitude of the proposed development, a secondary access is required for redundancy, to facilitate circulation of heavy vehicles, and to ensure the site can be accessed by emergency vehicles from all directions.

TAC guidelines suggest that driveways should not be located within the functional area of an intersection. The functional area of an intersection includes the area of the intersection itself as well as longitudinal limits of the auxiliary lanes. The proposed driveway on Fern Casey Street is located within the auxiliary lanes of the Fern Casey & Axis/Couloir intersection and therefore falls within the functional area of the intersection. Although not ideal, the proposed driveway is located near the northern limits of the auxiliary lanes to avoid potential site access blockages upon future development of the institutional block to the south of the site, but sufficiently far from the Brian Coburn & Fern Casey roundabout.

To discourage residents from exiting via the Fern Casey Street driveway and making U-turns to go to Brian Coburn Boulevard, it is recommended that the City consider implementing U-turn prohibitions at the Fern Casey & Axis/Couloir intersection.

The site access on Axis Way has already been constructed and is located more than 15m from the adjacent stop-controlled intersections. As such, there are no concerns with the location of this site access.

Clear Throat Lengths

For a residential development with 200 units, a minimum clear throat length of 15m is required for site accesses on collector roads. A clear throat length of approximately 42m is proposed for the site access on Fern Casey Street, thereby exceeding this requirement.

There is no clear throat length requirement for driveways on local streets such as Axis Way.

Private Approach By-law Requirements

The draft site plan has been reviewed for conformance with the Private Approach By-law (2003-447) with particular confirmation of the following items:

- **Width:** A private approach shall have a minimum width of 2.4m and a maximum width of 9.0m.
    - The private approaches will be 6.0m and 8.5m wide. ✓
- **Quantity and Spacing of Private Approaches:** One (1) two-way private approach is permitted on Axis Way as the proposed development only has approximately 20m of frontage on that road. On Fern Casey Street,

the site has approximately 172m of frontage and therefore one (1) two-way private approach and two (2) one-way private approaches or two (2) two-way private approaches are permitted. Any two private approaches must be separated by at least 9.0m, although this can be reduced to 2.0m in the case of two one-way driveways. On lots that abut more than one roadway, these provisions apply to each frontage separately.
    - A single two-way private approach is proposed on both Axis Way and on Fern Casey Street. ✓
- **Distance from Property Line:** Private approaches must be at least 3.0m from the abutting property line, however this requirement can be reduced to 0.3m provided that the access is a safe distance from the access serving the adjacent property, sight lines are adequate and that it does not create a traffic hazard.
    - The private approaches are more than 3.0m from the property lines. ✓

Parking Review

Vehicle Parking Requirements

Table 6 summarizes the number of parking spaces required by the Zoning By-law (2008-250) for Area C and the number of parking spaces proposed.

Table 6 Parking Review

Land Use	Type of Space	Required	Proposed
Back-to-back townhouse dwellings	Resident	40	80[1]
Stacked townhouse dwellings	Resident	192	**160**
	Visitor	32	**16**
	Total	224	**176**

[1] *Two spaces per unit, including the driveway and garage*

It should be noted that two of the 16 visitor parking spaces will be accessible parking spaces.

The first draft of the new Zoning By-law was released on May 31, 2024, and features a number of revisions to the parking requirements outlined in the 2008 Zoning By-law (2008-250). The modifications include the elimination of minimum requirements for resident parking spaces and a reduction in the minimum visitor parking requirement to 0.1 spaces per unit. Furthermore, as the proposed development is located in Area C in Schedule A3 of the draft Zoning By-law, the visitor parking requirements do not apply to the first 12 dwelling units. Under the draft Zoning By-law, the only requirement for the site would be to provide 15 visitor parking spaces. As such, the proposed parking supply meets the parking requirements of the future Zoning By-law.

Once the Cumberland Transitway is constructed, it is expected that the stacked townhouse dwellings will only generate a peak parking demand of 162 vehicles[2] as many households will be able to rely on transit for

[2] The ITE Parking Generation Manual only distinguishes between locations that are within ½ a mile (800m) from rail transit versus those that are beyond ½ a mile (800m) from rail transit. Although the Cumberland Transitway will be a BRT facility rather than an LRT facility, it is expected that the impact on parking demand will be similar.

commuting to/from work and visitors will be able to arrive via transit instead of personal vehicle. Thus the 176 spaces proposed will be sufficient to meet the expected demand.

It is therefore expected that the proposed parking supply is sufficient given that the proposed parking supply meets the minimum parking requirements of the future Zoning By-law and the peak parking demand of the stacked townhouse dwellings is not anticipated to exceed the proposed supply once the Cumberland Transitway is implemented.

A site-specific zoning exception is being sought to reduce the minimum parking requirements to one resident parking space and 0.1 visitor parking space per stacked townhouse unit. The proposed parking supply is consistent with the proposed site-specific zoning exception being sought.

Bicycle Parking Requirements

The Zoning By-law indicates that a minimum of 0.5 bicycle parking spaces per unit are required for stacked townhouse dwellings. This equates to a minimum requirement of 80 spaces. A total of 80 spaces will be provided, thereby meeting the requirements.

Minimum Dimension Requirements

The Zoning By-law and City of Ottawa Accessibility Design Standards specifies the following size requirements for parking facilities:

- Drive aisles must be a minimum of 6.0m in width.
- Regular parking spaces must be a minimum of 5.2m long and 2.6m wide.
- Type A parking spaces must be a minimum of 5.2m long, 3.4m wide and adjacent to a 1.5m wide access aisle
- Type B parking spaces must be a minimum of 5.2m long, 2.4m wide and adjacent to a 1.5m wide access aisle

The proposed parking facility has been reviewed and meets the above requirements.

Conclusion

The proposed development is expected to generate up to 52 two-way vehicle trips during the weekday peak hours. Once the Cumberland Transitway is implemented it is expected that the vehicle-trip generation of the site will decrease as residents and visitors make use of the adjacent transitway.

Intersection capacity analysis has been completed for the intersections of Brian Coburn & Fern Casey and Fern Casey & Axis/Couloir. The results of the analysis indicate that both intersections are currently operating at LOS 'B' or 'C'. As such, there are currently no intersection capacity issues at those intersections.

Swept path analysis has been completed to confirm the functionality of the site. The results of the analysis indicate that fire trucks, waste collection vehicles and moving trucks will be able to circulate within the site.

Given the proximity of the proposed development to existing bus stops and a future Cumberland Transitway station, it is expected that this will naturally encourage low auto usage. As such, no post-occupancy TDM program is proposed for the site at this time. The layout of the site has been designed to encourage the use of non-auto modes of travel by locating buildings close to the street, providing a comprehensive on-site pedestrian network, providing numerous pedestrian connections to Brian Coburn Boulevard and Fern Casey Street, and by providing bicycle parking in accordance with the Zoning By-law requirements.

The site accesses and drive aisles have been reviewed for conformance with applicable by-laws (e.g., Zoning and Private Approach By-laws) and technical standards/guidelines. No issues or concerns were identified with respect to corner clearances, throat lengths, or driveway and drive aisle widths. Furthermore, sightlines at the proposed site access were found to be sufficient.

The proposed parking supply does not meet the requirements of the current Zoning By-law (2008-250), however, the new draft Zoning By-law is expected to eliminate minimum resident parking requirements and reduce visitor parking requirements. Under the new draft Zoning By-law, the proposed parking supply will meet the minimum requirements. Considering the site's proximity to the future Cumberland Transitway, it is expected that many residents will travel by transit, thereby reducing the parking demand of the site. Based on the above, it is anticipated that the proposed parking supply will be sufficient. A site-specific zoning exception is being sought to reduce the minimum parking requirements to one resident parking space and 0.1 visitor parking space per stacked townhouse unit, in line with the amount of parking being proposed.

In conclusion, it is the overall opinion of Arcadis that the proposed development can be safely accommodated by the adjacent road network.

Appendix A: Site Plan

Title:

Concept Plan 36 - Rev 10

Project:

Trails Edge - Block 139 &140

Legend

- Open Space
- Amenity Area
- Metro Towns
- Avenue Towns (Back to Backs)

Site Statistics

Gross Site Area	2.68 ha	
Gross Site Density	74.63 u/ ha	
Unit Type	**Unit Count**	
Total Metro Towns	**160**	
3 Bed End Unit	64	
2 Bed Interior Unit	96	
Avenue Towns	**40**	
Total Units	**200**	
	Required	**Provided**
Total Amenity Space (6 sqm./unit)	960 Sq m.	2,240 Sq m.
Communal Amenity Space (50% of total amenity per unit = min. 3 Sq m./Unit)	480 Sq m.	480 Sq m.
Bicycle Parking Spaces (0.5 per Metro)	80	80
Parking: Resident Parking (1.0 per unit)	160	160
Parking: Visitor Parking (0.1 per unit)	16	16
Parking: Extra Parking	-	0
Parking: **Total Parking Spaces (Units x 1.1)**	**176**	**176**

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 1.0 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
10	Changes to sidewalks	2024-11-14	A.K.
9	Updated for internal review	2024-11-11	A.K.
8	Updated for internal review	2024-11-04	K.G.
7	Updated for internal review	2024-10-25	A.K.
6	Updated for internal review	2024-10-23	A.K.
5	Updated Concept - As per Transportation's comments	2024-10-10	A.K.

Revisions

minto Communities

Drawn By: A.K.
Checked By:
Minto Communities Inc
180 Kent Street,
Ottawa, ON
K1P 0B6

North

Scale: **NTS**

Appendix B: TIA Screening Form

City of Ottawa 2017 TIA Guidelines Screening Form

*Revised per City of Ottawa update to the TIA Guidelines, effective June 14, 2023

1. Description of Proposed Development

Municipal Address	6371 Renaud Road, Ottawa, Ontario
Description of Location	The proposed development is located on the south-west corner of the brian Coburn & Fern Casey roundabout. The site is bound by Brian Coburn Blvd to the north, Fern Casey St to the east, residential developments to the south and undeveloped greenland to the west. 
Land Use Classification	DR - Development Reserve
Development Size (units)	200 Units (40 Avenue Towns and 160 Metro Towns)
Development Size (m^2)	N/A

Number of Accesses and Locations	One Right-in/Right-out access on Fern Casey St approx. 105m north of Axis Way One Full movement access on Axis Way approx. 190m west of Fern Casey
Phase of Development	TBD
Buildout Year	TBD

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

2. Trip Gen 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 (60 person trips)	
Single-Detached[1]	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 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.*

[1] *Table 2, Table 3 & Table 4 TRANS Trip Generation Summary Report*

[2] *ITE Trip Generation Manual 11.1 Ed.*

As shown above, the proposed development does meet the minimum unit count, however a preliminary trip generation exercise was completed to show that the development will have a negligible impact on the surrounding transportation network. As shown in the table below, the development is expected to generate 45 and 52 two-way vehicle trips in the morning and afternoon peak hour, repectively.

	AM				PM			
		In	Out	Total		In	Out	Total
Auto Driver		14	31	45		30	22	52
Auto Passenger		2	6	8		8	6	14
Transit		9	20	29		12	9	21
Bike		0	0	0		0	0	0
Walk		3	7	10		4	3	7
Subtotal:		**28**	**64**	92		**54**	**40**	94

A reduced scope study is therefore proposed that will include only existing conditions intersection capacity analysis and site access analysis.

Based on the 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 Cross-Town Bikeways?		✓
Is the development in a Design Priority Area (DPA), Transit-oriented Development (TOD) zone or Hub?*		✓

**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.*
Hubs are identified as Protected Major Transit Station Areas (PTMSAs) and identified in Schedule C1-Protected Major Transit Station Areas (PMTSAs).

Based on the above, the Location Trigger is not satisfied.

4. Safety Triggers

	Yes	No
Are posted speed limits on a boundary street 80km/hr or greater?		✓
Are there any horizontal/vertical curvatures on a boundary street that limit 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 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?		✓

The proposed right-in/right-out access on Fern Casey is within 150m of the Brian Coburn & Fern Casey roundabout and is within the auxiliary righ-turn lane of the Fern Casey & Axis Way unsignalized intersection. The impacts of this placement will be examined within the reduced scope study proposed.

Based on the above, 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?	✓	

Although the Trip Generation and Safety Triggers are met, a reduced scope TIA is proposed to examine the site specific impacts of the proposed development and to show the negligible vehicular impacts of the site generated traffic.

Appendix C: Intersection Capacity Analysis Reports

MOVEMENT SUMMARY

Site: 101 [Brian Coburn & Fern Casey (Site Folder: EX AM)]

Brian Coburn Boulevard & Fern Casey Street
Existing Traffic
AM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Fern Casey Street														
3u	U	1	0.0	1	0.0	0.361	7.2	LOS A	2.0	15.1	0.50	0.39	0.50	55.1
3	L2	107	2.0	119	2.0	0.361	7.2	LOS A	2.0	15.1	0.50	0.39	0.50	53.8
8	T1	2	50.0	2	50.0	0.361	8.9	LOS A	2.0	15.1	0.50	0.39	0.50	52.5
18	R2	226	2.0	251	2.0	0.361	7.2	LOS A	2.0	15.1	0.50	0.39	0.50	52.3
Approach		336	2.3	373	2.3	0.361	7.2	LOS A	2.0	15.1	0.50	0.39	0.50	52.8
East: Brian Coburn Boulevard														
1u	U	1	0.0	1	0.0	0.657	11.9	LOS B	6.1	47.2	0.60	0.38	0.60	52.1
1	L2	148	0.0	164	0.0	0.657	11.9	LOS B	6.1	47.2	0.60	0.38	0.60	51.1
6	T1	547	1.0	608	1.0	0.657	11.9	LOS B	6.1	47.2	0.60	0.38	0.60	50.9
16	R2	6	67.0	7	67.0	0.657	13.9	LOS B	6.1	47.2	0.60	0.38	0.60	47.6
Approach		702	1.4	780	1.4	0.657	11.9	LOS B	6.1	47.2	0.60	0.38	0.60	50.9
North: Fern Casey Street														
7u	U	1	0.0	1	0.0	0.051	7.4	LOS A	0.1	1.3	0.63	0.61	0.63	51.2
7	L2	9	89.0	10	89.0	0.051	13.2	LOS B	0.1	1.3	0.63	0.61	0.63	46.3
4	T1	1	0.0	1	0.0	0.051	7.4	LOS A	0.1	1.3	0.63	0.61	0.63	50.0
14	R2	4	50.0	4	50.0	0.051	10.7	LOS B	0.1	1.3	0.63	0.61	0.63	47.2
Approach		15	66.7	17	66.7	0.051	11.8	LOS B	0.1	1.3	0.63	0.61	0.63	47.1
West: Brian Coburn Boulevard														
5u	U	1	0.0	1	0.0	0.281	5.9	LOS A	1.3	10.9	0.39	0.26	0.39	57.6
5	L2	3	100.0	3	100.0	0.281	9.1	LOS A	1.3	10.9	0.39	0.26	0.39	50.9
2	T1	194	7.0	216	7.0	0.281	6.1	LOS A	1.3	10.9	0.39	0.26	0.39	55.9
12	R2	66	11.0	73	11.0	0.281	6.3	LOS A	1.3	10.9	0.39	0.26	0.39	54.1
Approach		264	9.0	293	9.0	0.281	6.2	LOS A	1.3	10.9	0.39	0.26	0.39	55.4
All Vehicles		1317	3.9	1463	3.9	0.657	9.6	LOS A	6.1	47.2	0.53	0.36	0.53	52.2

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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\TrailsEdgeBlock140_2024-11-05.sip9

MOVEMENT SUMMARY

Site: 101 [Brian Coburn & Fern Casey (Site Folder: EX PM)]

Brian Coburn Boulevard & Fern Casey Street
Existing Traffic
PM Peak Hour
Site Category: (None)
Roundabout

Vehicle Movement Performance

Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] %	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Fern Casey Street														
3u	U	1	0.0	1	0.0	0.265	8.0	LOS A	1.2	8.9	0.63	0.63	0.63	54.3
3	L2	59	3.0	66	3.0	0.265	8.2	LOS A	1.2	8.9	0.63	0.63	0.63	53.0
8	T1	1	0.0	1	0.0	0.265	8.0	LOS A	1.2	8.9	0.63	0.63	0.63	53.0
18	R2	111	1.0	123	1.0	0.265	8.1	LOS A	1.2	8.9	0.63	0.63	0.63	51.6
Approach		172	1.7	191	1.7	0.265	8.1	LOS A	1.2	8.9	0.63	0.63	0.63	52.1
East: Brian Coburn Boulevard														
1u	U	1	0.0	1	0.0	0.527	8.6	LOS A	4.2	32.0	0.35	0.17	0.35	54.1
1	L2	199	2.0	221	2.0	0.527	8.6	LOS A	4.2	32.0	0.35	0.17	0.35	52.9
6	T1	397	1.0	441	1.0	0.527	8.6	LOS A	4.2	32.0	0.35	0.17	0.35	52.8
16	R2	2	0.0	2	0.0	0.527	8.6	LOS A	4.2	32.0	0.35	0.17	0.35	51.5
Approach		599	1.3	666	1.3	0.527	8.6	LOS A	4.2	32.0	0.35	0.17	0.35	52.9
North: Fern Casey Street														
7u	U	1	0.0	1	0.0	0.010	5.7	LOS A	0.0	0.3	0.59	0.45	0.59	54.4
7	L2	1	0.0	1	0.0	0.010	5.7	LOS A	0.0	0.3	0.59	0.45	0.59	53.2
4	T1	2	50.0	2	50.0	0.010	8.5	LOS A	0.0	0.3	0.59	0.45	0.59	51.8
14	R2	1	0.0	1	0.0	0.010	5.7	LOS A	0.0	0.3	0.59	0.45	0.59	51.7
Approach		5	20.0	6	20.0	0.010	6.8	LOS A	0.0	0.3	0.59	0.45	0.59	52.6
West: Brian Coburn Boulevard														
5u	U	1	0.0	1	0.0	0.699	14.1	LOS B	11.3	86.0	0.77	0.79	1.14	51.4
5	L2	1	0.0	1	0.0	0.699	14.1	LOS B	11.3	86.0	0.77	0.79	1.14	50.3
2	T1	553	0.0	614	0.0	0.699	14.1	LOS B	11.3	86.0	0.77	0.79	1.14	50.2
12	R2	129	0.0	143	0.0	0.699	14.1	LOS B	11.3	86.0	0.77	0.79	1.14	49.0
Approach		684	0.0	760	0.0	0.699	14.1	LOS B	11.3	86.0	0.77	0.79	1.14	50.0
All Vehicles		1460	0.8	1622	0.8	0.699	11.1	LOS B	11.3	86.0	0.58	0.52	0.75	51.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Roundabout LOS Method: Same as Sign Control.
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.
LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).
Roundabout Capacity Model: US HCM 6.
Delay Model: HCM Delay Formula (Geometric Delay is not included).
Queue Model: HCM Queue Formula.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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\TrailsEdgeBlock140_2024-11-05.sip9

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	83	2	1	10	2	21	4	230	8	23	147	38
Future Vol, veh/h	83	2	1	10	2	21	4	230	8	23	147	38
Conflicting Peds, #/hr	3	0	3	3	0	3	3	0	5	5	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	-	110	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	1	0	0	5	50	0	12	2	0	17	1	5
Mvmt Flow	92	2	1	11	2	23	4	256	9	26	163	42

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	502	496	169	515	534	269	208	0	0	270	0	0
Stage 1	218	218	-	274	274	-	-	-	-	-	-	-
Stage 2	284	278	-	241	260	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.5	6.2	7.15	7	6.2	4.22	-	-	4.27	-	-
Critical Hdwy Stg 1	6.11	5.5	-	6.15	6	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.5	-	6.15	6	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4	3.3	3.545	4.45	3.3	2.308	-	-	2.353	-	-
Pot Cap-1 Maneuver	481	478	880	466	391	775	1306	-	-	1212	-	-
Stage 1	787	726	-	726	604	-	-	-	-	-	-	-
Stage 2	725	684	-	756	613	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	453	462	875	452	378	769	1302	-	-	1206	-	-
Mov Cap-2 Maneuver	453	462	-	452	378	-	-	-	-	-	-	-
Stage 1	782	708	-	720	599	-	-	-	-	-	-	-
Stage 2	696	679	-	734	598	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	15	11.4	0.1	0.9
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1302	-	-	456	603	1206	-	-
HCM Lane V/C Ratio	0.003	-	-	0.21	0.061	0.021	-	-
HCM Control Delay (s)	7.8	-	-	15	11.4	8.1	-	-
HCM Lane LOS	A	-	-	C	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.2	0.1	-	-

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔		↰	↑		↰	↑	↱
Traffic Vol, veh/h	65	0	5	0	4	22	3	73	7	36	200	103
Future Vol, veh/h	65	0	5	0	4	22	3	73	7	36	200	103
Conflicting Peds, #/hr	0	0	6	6	0	0	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	-	110	-	110
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	10	0	0	9	33	1	7	6	2	1
Mvmt Flow	72	0	6	0	4	24	3	81	8	40	222	114

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	411	402	232	460	512	86	340	0	0	90	0	0
Stage 1	306	306	-	92	92	-	-	-	-	-	-	-
Stage 2	105	96	-	368	420	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.3	7.1	6.5	6.29	4.43	-	-	4.16	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.39	3.5	4	3.381	2.497	-	-	2.254	-	-
Pot Cap-1 Maneuver	555	540	788	515	468	954	1065	-	-	1480	-	-
Stage 1	708	665	-	920	823	-	-	-	-	-	-	-
Stage 2	906	819	-	656	593	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	522	521	780	496	452	953	1061	-	-	1478	-	-
Mov Cap-2 Maneuver	522	521	-	496	452	-	-	-	-	-	-	-
Stage 1	703	644	-	916	820	-	-	-	-	-	-	-
Stage 2	875	816	-	630	575	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.9	9.6	0.3	0.8
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1061	-	-	535	814	1478	-	-
HCM Lane V/C Ratio	0.003	-	-	0.145	0.035	0.027	-	-
HCM Control Delay (s)	8.4	-	-	12.9	9.6	7.5	-	-
HCM Lane LOS	A	-	-	B	A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.5	0.1	0.1	-	-

Appendix D: Transportation Demand Management

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)*	☑ Direct connections to sidewalks on Brian Coburn and Fern Casey are provided to minimize walking distances to the future BRT station
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)*	☐ N/A
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	☑ A variation is being sought to reduce parking requirements
BASIC	6.1.2	Provide parking for long-term and short-term users that is consistent with mode share targets, considering the potential for visitors to use off-site public parking	☐
BASIC	6.1.3	Where a site features more than one use, provide shared parking and reduce the cumulative number of parking spaces accordingly *(see Zoning By-law Section 104)*	☐
BETTER	6.1.4	Reduce the minimum number of parking spaces required by zoning by one space for each 13 square metres of gross floor area provided as shower rooms, change rooms, locker rooms and other facilities for cyclists in conjunction with bicycle parking *(see Zoning By-law Section 111)*	☐
	6.2	**Separate long-term & short-term parking areas**	
BETTER	6.2.1	Provide separate areas for short-term and long-term parking (using signage or physical barriers) to permit access controls and simplify enforcement (i.e. to discourage residents from parking in visitor spaces, and vice versa)	☐

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

Legend

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

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

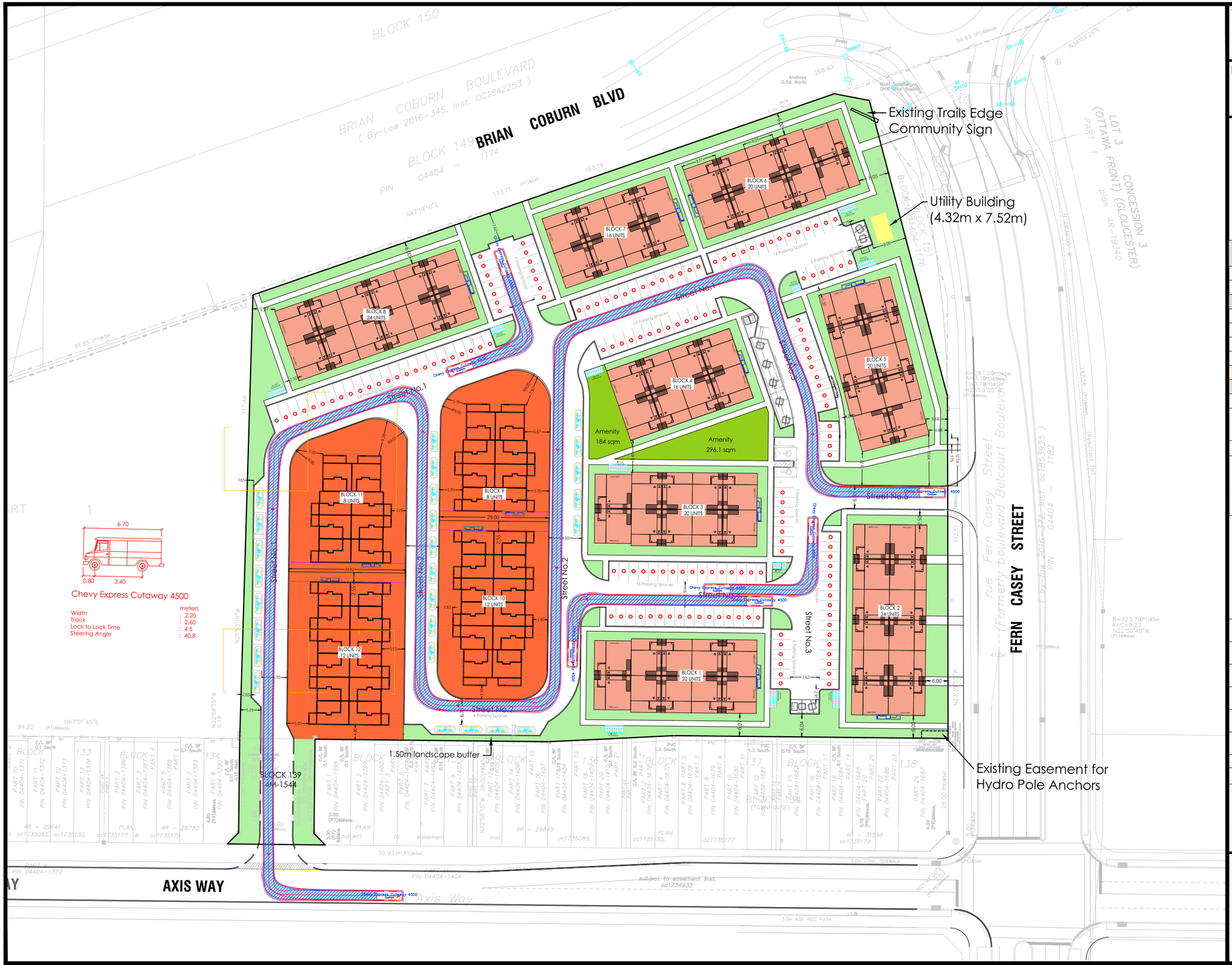
★ — The measure is one of the most dependably effective tools to encourage the use of sustainable modes

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

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

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

Appendix E: Swept Path Analysis



Title:

Concept Plan 36 - Rev 10

Project:

Trails Edge - Block 139 &140

Legend

- Open Space
- Amenity Area
- Metro Towns
- Avenue Towns (Back to Backs)

Site Statistics

Gross Site Area	2.68 ha	
Gross Site Density	74.63 u/ ha	
Unit Type	**Unit Count**	
Total Metro Towns	**160**	
3 Bed End Unit	64	
2 Bed Interior Unit	96	
Avenue Towns	**40**	
Total Units	**200**	
	Required	**Provided**
Total Amenity Space (6 sqm./unit)	960 Sq m.	2,240 Sq m.
Communal Amenity Space (50% of total amenity per unit = min. 3 Sq m./Unit)	480 Sq m.	480 Sq m.
Bicycle Parking Spaces (0.5 per Metro)	80	80
Parking – Resident Parking (1.0 per unit)	160	160
Parking – Visitor Parking (0.1 per unit)	16	16
Parking – Extra Parking	-	0
Parking – **Total Parking Spaces (Units x 1.1)**	**176**	**176**

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 1.0 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
10	Changes to sidewalks	2024-11-14	A.K.
9	Updated for internal review	2024-11-11	A.K.
8	Updated for internal review	2024-11-04	K.G.
7	Updated for internal review	2024-10-25	A.K.
6	Updated for internal review	2024-10-23	A.K.
5	Updated Concept - As per Transportation's comments	2024-10-10	A.K.

Revisions

.\05 Minto Branding-Logos\Minto Communities - Blue .png

Drawn By: A.K.
Checked By:
Minto Communities Inc
180 Kent Street,
Ottawa, ON
K1P 0B6

North

Scale: **NTS**

Title:

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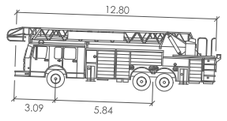

Aerial Fire

	meters
Width	: 2.54
Track	: 2.54
Lock to Lock Time	: 6.0
Steering Angle	: 37.0

BRIAN COBURN BLVD

AXIS WAY

FERN CASEY STREET

BELCOURT BOULEVARD

Existing Trails Edge Community Sign

Utility Building (4.32m x 7.52m)

Existing Easement for Hydro Pole Anchors

1.50m landscape buffer

BLOCK 1 20 UNITS
BLOCK 2 24 UNITS
BLOCK 3 20 UNITS
BLOCK 4 16 UNITS
BLOCK 5 20 UNITS
BLOCK 6 20 UNITS
BLOCK 7 16 UNITS
BLOCK 8 24 UNITS
BLOCK 9 8 UNITS
BLOCK 10 12 UNITS
BLOCK 11 8 UNITS
BLOCK 12 12 UNITS

Amenity 184 sqm
Amenity 296.1 sqm

Street No.1
Street No.2
Street No.3
Street No.4
Street No.5
Street No.6
Street No.7

BLOCK 139 4M-1544

ROUNABOUT DESIGN THE CITY OF OTTAWA

BLOCK 150

BRIAN COBURN BOULEVARD (By-Law 2016-345, Inst. OC1842253)

LOT 3 CONCESSION 3 (OTTAWA FRONT) (GLOUCESTER)