

# 1720 Sherwood Forrest Circle Scoped Transportation Impact Assessment

Sherwood Forrest Limited Partnership



# 1720 Sherwood Forrest Scoped TIA

Prepared for:

Sherwood Forrest Limited Partnership

Prepared by:



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3 May 2024

PN: 2023-078



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May 3, 2024

Ref: 2023-078

**Sherwood Forrest Limited Partnership**

c/o Tony Vella

4900 Palladium Way, Suite 105

Burlington, ON, L7M 0W7

**By email: Tony@ARGOLand.ca**

**Re: 1720 Sherwood Forrest Scoped TIA**

Dear Tony:

CGH Transportation Inc. is pleased to present the findings of our Scoped Transportation Impact Assessment for the proposed residential development located at 1720 Sherwood Forrest in the City of Mississauga. The Scoped TIA has been prepared in support of the Site Plan Application for the subject site. The report concludes that the proposed development will function within the study area road network. It is recommended that, from a transportation perspective, the proposed development application process proceeds.

Please do not hesitate to contact the undersigned should you have any additional questions or concerns.

Yours truly,

**CGH TRANSPORTATION INC.**

A handwritten signature in blue ink, appearing to read 'Mark Crockford'.

Mark Crockford, P. Eng.

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A handwritten signature in blue ink, appearing to read 'Viktoriya Zaytseva'.

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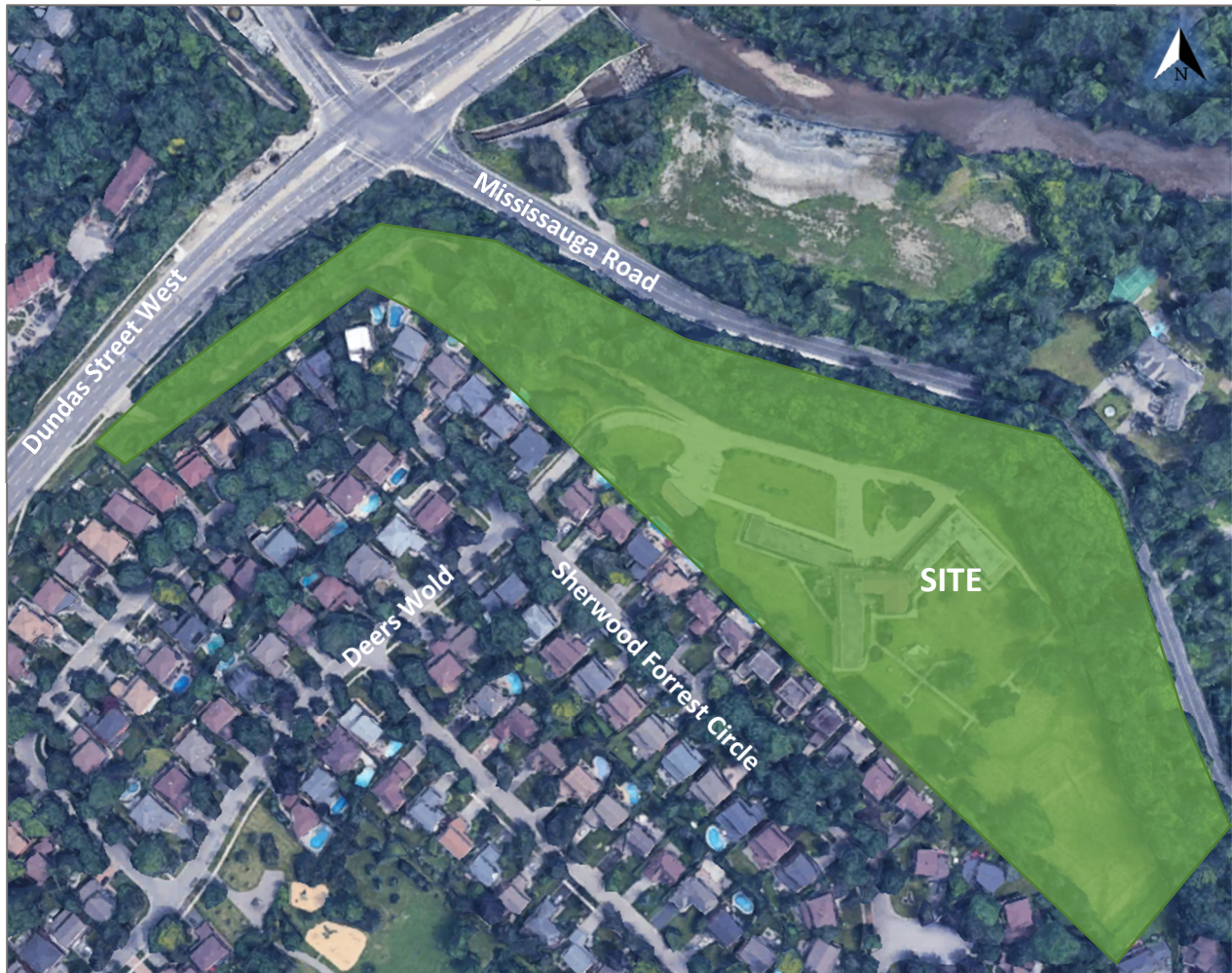
## 1 Introduction

This study has been prepared according to the City of Mississauga's 2022 Transportation Impact Study Guidelines (Version 5.1). Accordingly, a Pre-Study Consultation Checklist has been prepared and is included as Appendix A, along with the Certification Form for the TIA Study PM. As shown in the Pre-Study Consultation Checklist, a Scoped TIA is required including Access Review, a TDM Statement, and a Pedestrian Circulation Plan. This study has been prepared to support a site plan application.

The subject property is located at 1720 Sherwood Forrest Circle and is zoned as a Greenlands (G1) and Residential (R1-48) zones. Currently the site includes a former seniors' residence which will be removed as part of the proposed redevelopment. The proposed development includes a common element condominium consisting of 56 single detached homes. The proposed site plan provides 14 visitor parking spaces, including one accessible parking space.

The proposed development will use an existing site access which forms the fourth leg of Sherwood Forrest Circle and Deers Wold intersection. The development will maintain the existing access. For the purposes of this study, the AM and PM peak hour will be considered for analysis, and the projected full build-out and occupancy horizon is 2028. Figure 1 illustrates the site context. Figure 2 illustrates the proposed site plan.

Figure 1: Site Context







LAND USE SUMMARY

1720 Sherwood Forrest Circle	4.63 ha.	11.44 ac.	
Block F (to be acquired from City of Mississauga)	0.05 ha.	0.12 ac.	
Total Site Area	4.68 ha.	11.56 ac.	
NON-DEVELOPABLE			
NHS	2.34 ha.	5.78 ac.	
Road Widening	0.09 ha.	0.22 ac.	
Net Area	2.25 ha.	5.56 ac.	100.0%
DEVELOPABLE			
Residential (see 'UNIT SUMMARY')	1.45 ha.	3.58 ac.	64.4%
Open Space	0.22 ha.	0.54 ac.	9.8%
Condo Roads	0.58 ha.	1.43 ac.	25.6%
TOTAL (Net Developable)	2.25 ha.	5.56 ac.	100.0%

UNIT SUMMARY

	Unit	Unit	Unit	Lot	Frontage	Area			% Net Res
	width	Depth	Count	Mix	(m)				
Condo Block									
Detached Homes	(33)	10.00 x 23.0	50	89%	500.0	1.22 ha.	3.01 ac.		84.4%
Detached Homes (custom)	(33)	10.00 x 23.0	1	2%	10.0	0.03 ha.	0.08 ac.		2.4%
Custom Homes (approximately)	(57)	12.80 x 23.0	1	2%	12.8	0.03 ha.	0.08 ac.		2.4%
Custom Homes (approximately)	(57)	17.37 x N/A	3	5%	52.1	0.12 ha.	0.31 ac.		8.6%
Custom Homes (approximately)	(57)	17.37 x N/A	1	2%	17.4	0.03 ha.	0.08 ac.		2.4%
TOTAL			56	100%	592.3	1.45 ha.	3.57 ac.		100.0%

ROW SCHEDULE

	(m)	(lin.m)	(lin.m)
	width	Half	Half
Condo Road	9.4	511.2	0.0
Existing driveway to Sherwood Forrest Circle (Block F)		37.4	0.0
Condo Road	7.4	20.1	0.0
Condo Road	6.4	22.1	0.0
ROW TOTAL		590.7	0.0

PARKING

	Reqd	Provided
Resident- 2 spaces per unit	112	112
Visitor - 0.25 spaces per unit	14	14
TOTAL PARKING	126	126

DRAFT



## 1.1 Area Road Network

### *Sherwood Forrest Circle*

Sherwood Forrest Circle is a City of Mississauga local road with a two-lane urban cross-section. A boulevard-separated sidewalk is provided on the west side of the road. No cycling facilities are provided. An unposted speed limit of 40 km/h applies for neighbourhood roads. The City of Mississauga protects for a 20 m right-of-way along this road.

### *Deers Wold*

Deers Wold is an east-west City of Mississauga local road with a two-lane urban cross-section. A boulevard-separated sidewalk is provided on the south side of the road. No cycling facilities are provided. An unposted speed limit of 40 km/h applies for neighbourhood roads. The City of Mississauga protects for a 20 m right-of-way along this road.

## 1.2 Existing Intersections

### *Sherwood Forrest Circle at Deers Wold/Site Access*

The unsignalized intersection of Sherwood Forrest Circle at Deers Wold has four approaches. Each approach has a single shared left-turn/through/right-turn lane. There are stop signs on the eastbound and westbound approaches. There are no road markings or signage that indicates any restrictions at this intersection. The westbound approach is a site access to 1720 Sherwood Forrest Circle and will be maintained as the access for the proposed development.

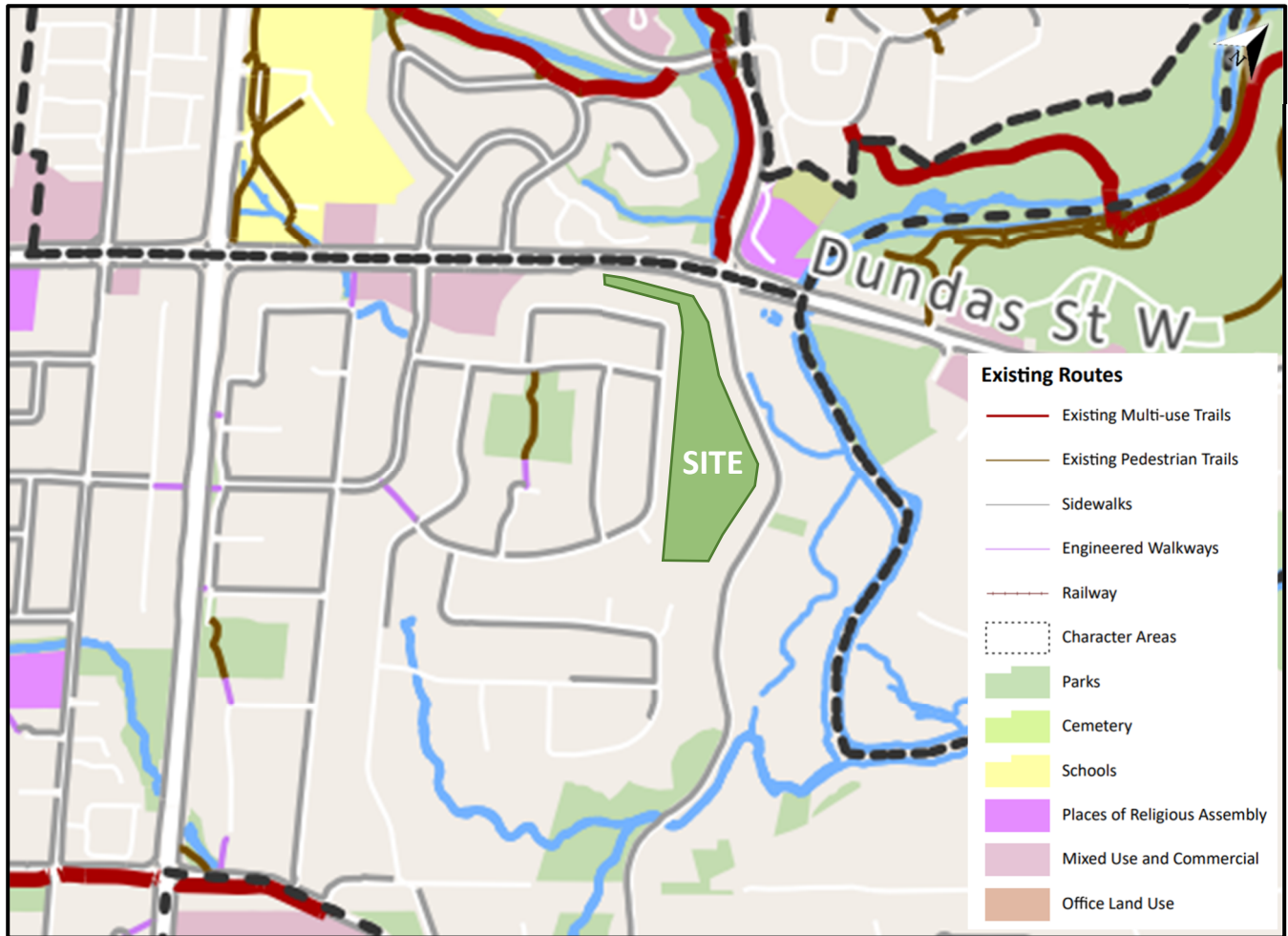


## 1.3 Cycling and Pedestrian Facilities

Boulevard-separated sidewalks are provided along one side of all roads in the Sherwood Forrest neighbourhood. There are boulevard-separated sidewalks on both sides of Dundas Street West. On Mississauga Road there is a boulevard-separated sidewalk on the west side of the road south of Dundas Street West. On the north side of Dundas Street West, Mississauga Road includes a multi-use trail on the west side of the road, and a boulevard-separated sidewalk on the east side. Figure 3 illustrates an excerpt from the City of Mississauga Pedestrian Master Plan (2021) showing the existing pedestrian facilities in the Study Area.



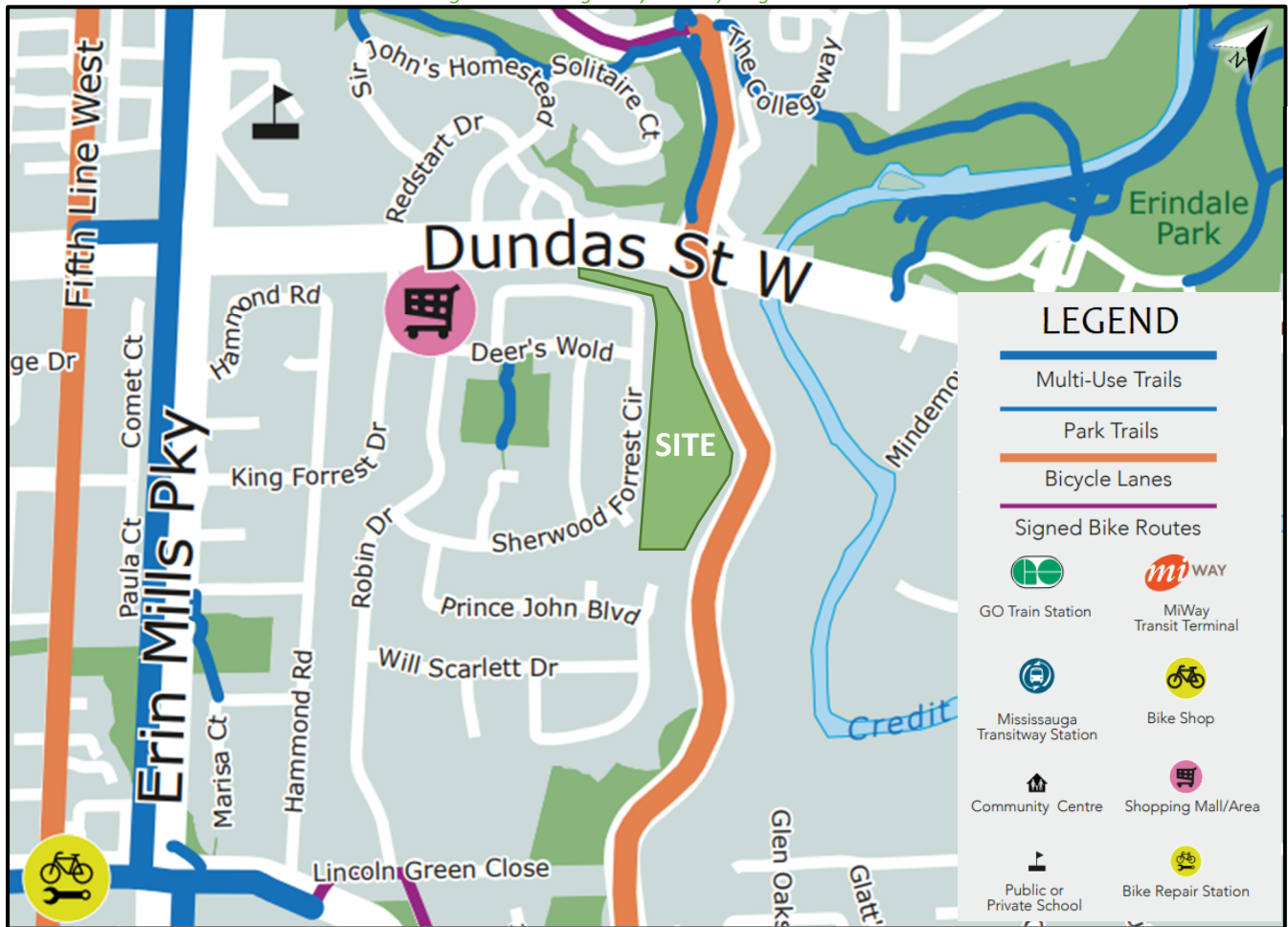
Figure 3: Existing Study Area Pedestrian Facilities



Note: Excerpt from City of Mississauga Pedestrian Master Plan (2021) accessed at: <https://www.mississauga.ca/projects-and-strategies/city-projects/building-the-pedestrian-master-plan/>. Accessed: June 9, 2023

Cycling facilities in the study area include bike lanes along Mississauga Road and a multi-use trail on the west side of Mississauga Road, north of Dundas Street West. There are also additional multi-use trails and a signed bike route that split off from Mississauga Road leading into parks and green spaces north of Dundas Street West. Figure 4 illustrates an excerpt from the Mississauga Cycling Map (2021) that demonstrates the existing cycling facilities within the Study Area.

Figure 4: Existing Study Area Cycling Facilities



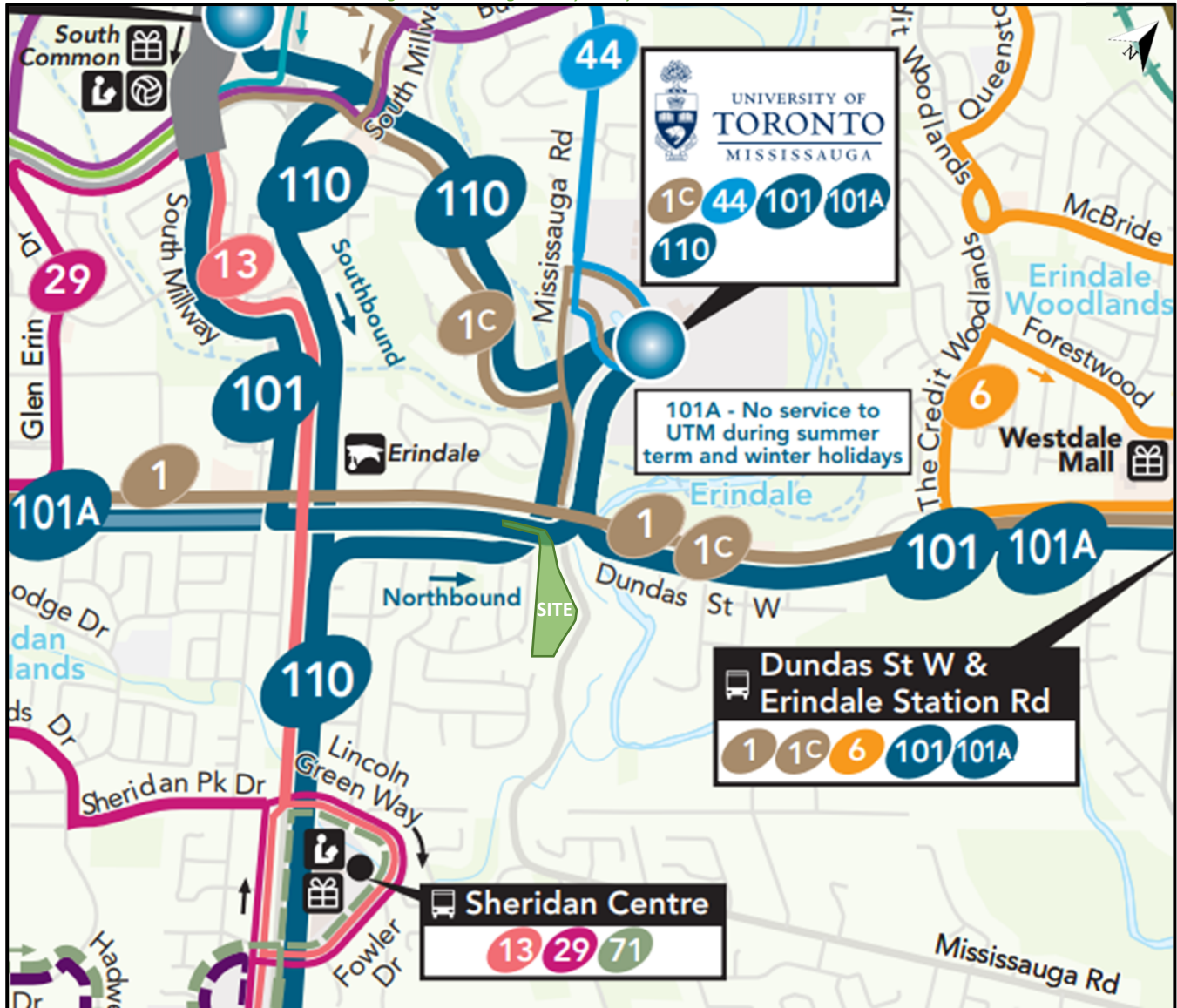
Note: Excerpt from Mississauga Cycling Map (2021) accessed at: <https://www.mississauga.ca/services-and-programs/transportation-and-streets/cycling/cycling-map/> Accessed: June 9, 2023

#### 1.4 Transit

As of June 2023, MiWay routes within the Study Area include Route #1 – Dundas, Express Route #101 – Dundas Express, and Express Route #110 – University Express. Although the Express Routes #101 and #110 operate within the Study Area, the closest bus stops are over 1 km away from the site access. These express routes also only operate from Monday to Friday. The existing Study Area MiWay transit service is presented in Figure 5.

Route #1 – Dundas is an east-west MiWay local route, which operates from Laird Road west of Ridgeway Drive (west terminus) to the Kipling Terminal Platform 16 (east terminus) on all days of the week. The eastbound route operates from 3:45 AM to 1:10 AM with an average headway of 20 minutes, up to 35 minutes in the off-peak hours. The westbound route operates from 3:45 AM to 12:55 AM with an average headway of 10-15 minutes.

Figure 5: Existing MiWay Study Area Transit Service



Source: <https://www.mississauga.ca/miway-transit/maps/transit-system-maps/> Accessed: June 9th, 2023

### 1.5 Existing Peak Hour Travel Demand

To understand the existing AM and PM peak hour traffic volumes, weekday turning movement counts (TMC) at the existing site access have been collected for both the AM and PM peak hours. These counts included the counts for vehicles, pedestrians, and cyclists. Table 1 summarizes the date and data source of the turning movement counts used as part of this study. Turning movement count data is included in Appendix B.

Table 1: Turning Movement Count Data Date and Source

Intersection	Count Date	Data Source
Sherwood Forrest Circle at Deers Wold	Wednesday, June 14 <sup>th</sup> , 2023	Ontario Traffic Inc.

The collected data was analysed at the existing horizon and the intersection operations were determined. Figure 6 shows the balanced existing traffic volumes, including the trips in and out of the existing site. Figure 7 illustrates the existing pedestrian volumes. There were no cyclist volumes during the peak hours at the study intersection. Table 2 includes a summary of existing peak hour intersection operations, and the detailed Synchro report is included in Appendix C.



Figure 6: Existing Traffic Volumes

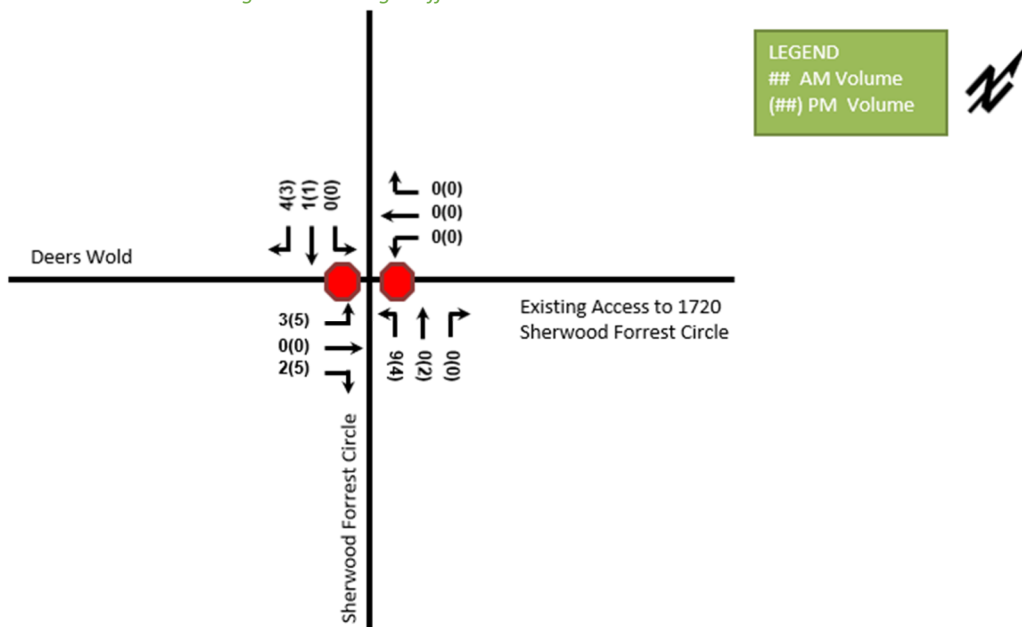


Figure 7: Existing Pedestrian Volumes

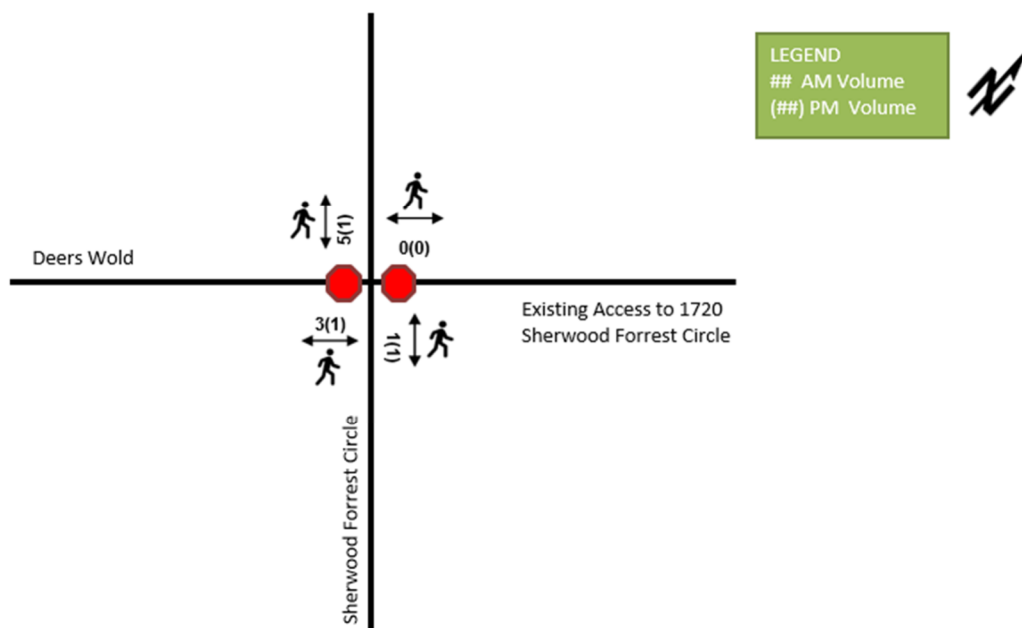


Table 2: Existing Intersection Operations

Intersection	Lane	AM Peak Hour				PM Peak Hour			
		LOS	V/C	Delay (s)	Q (95 <sup>th</sup> )	LOS	V/C	Delay (s)	Q (95 <sup>th</sup> )
Sherwood Forrest Circle & Deers Wold / Site Access (Unsignalized)	WBL/T/R	A	0.00	0	0	A	0.00	0	0
	EBL/T/R	A	0.00	9	<1	A	0.01	9	<1
	NBL/T/R	A	0.01	7	<1	A	0.00	5	<1
	SBL/T/R	-	0.00	0	0	-	0.00	0	0
	Overall	A	-	6	-	A	-	6	-

Notes: Saturation flow rate of 1800 veh/h/lane  
Queue is measured in metres  
Peak Hour Factor = 0.90

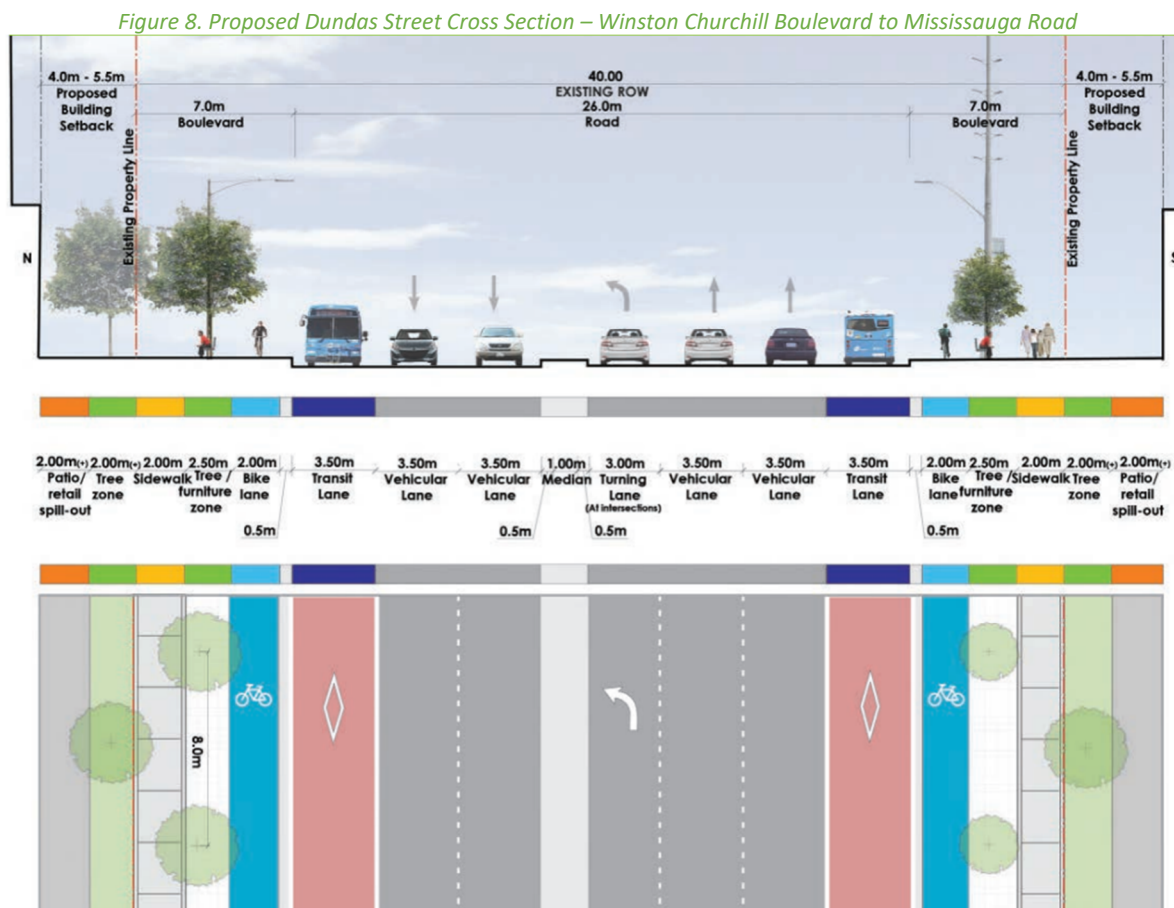
Delay = average vehicle delay in seconds  
m = metered queue  
# = volume for the 95th %ile cycle exceeds capacity

During both the AM and PM peak hours, the studied intersection operates well, and no capacity issues were noted. According to the City of Mississauga Transportation Impact Study Guidelines, the threshold criteria for unsignalized intersections is LOS E, and a 95<sup>th</sup> percentile queue below the available storage length. As shown in Table 2 above, the required operational thresholds are met.

## 1.6 Planned Conditions

### 1.6.1 Dundas Street BRT

Dundas Street is envisioned as an interregional BRT corridor, and will run between Kipling TTC station to the east, and Hamilton Waterdown terminal to the west. The BRT operations are expected to begin no earlier than 2025 and may occur beyond the horizons of this study. The intersection of Dundas Street and Mississauga Road is outlined as one of the key areas along the proposed BRT corridor, and considerations are being made for the addition of a curbside northbound transit lane on Mississauga Road to the UTM campus. Figure 8 shows the proposed Dundas Street cross-section with the proposed BRT west of Mississauga Road.



Source: Dundas Connects Master Plan (2018)

## 2 Development-Generated Travel Demand

The ITE Trip Generation Manual 11<sup>th</sup> Edition has been reviewed to determine the appropriate trip generation rate equations for the proposed land use. The fitted curve equations were used to determine appropriate vehicle trip generation rates for the residential development. The land use code for the proposed development is Single-Family Detached Housing (210). Table 3 summarizes the ITE Trip Generation Equations and directional splits.

Table 3: ITE Equations and Directional Splits

Land Use (LUC)	AM Peak Hour			PM Peak Hour		
	Equation	In %	Out %	Equation	In %	Out %
<b>Single-Family Detached Housing (210)</b>	$\ln(T)$ $= 0.91 \ln(T) + 0.12$	25%	75%	$\ln(T)$ $= 0.96 \ln(T) + 0.20$	63%	37%

Using the above equations, the vehicle trip rates for each development were calculated. These are converted to person trips using a 1.28 adjustment factor. Table 4 summarizes the person trip rates for the proposed development.

Table 4: ITE Trip Generation Person Trip Rates

Dwelling Type	ITE LUC	Unit Count	Peak Hour	Vehicle Trip Rate	Adjustment Factor	Person Trip Rate
<b>Single Family Detached</b>	210	56	AM	0.78	1.28	1.00
			PM	1.03		1.32

LUC – Land Use Code

Using the above Person Trip rates, the total person trip generation has been estimated. Table 5 below illustrates the total person trip generation of the proposed development.

Table 5: Total Person Trip Generation

Land Use	Units	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
<b>Single Family Detached</b>	57	14	42	56	47	27	74

As shown above, the proposed development will have a minor impact on the adjacent road network and no detailed intersection level of service assessment is required. A total of 56 AM and 74 PM peak hour bi-directional person trips are projected as a result of the proposed development. Thus, based on Table 2.2 of the City of Mississauga's 2022 Transportation Impact Study Guidelines, a Scoped TIA, including Access Review, a TDM Statement, and a Pedestrian Circulation Plan is required to support the proposed development.

The existing mode shares in the Study Area were obtained from the 2016 Transportation Tomorrow Survey (TTS) Summary by Ward for the Regional Municipality of Peel. To remain conservative, it was assumed that the proposed Dundas Street BRT will not be running before the build out of the proposed common element condominium. However, given the expected increase in congestion due to growth between 2016 and 2028 that will shift trips away from single occupancy vehicle trips to more sustainable modes, a lower auto mode share is expected when the proposed development is built out. Thus, the 2016 mode shares were adjusted to reflect the above-mentioned shift in travel behaviour by reducing the auto driver mode share by approximately 10%, and proportionally increasing auto passenger and transit mode shares. Table 6 summarizes the 2016 TTS and estimated 2028 mode shares. Table 7 summarizes the site trip generation by mode.



Table 6: Mode Shares

Travel Mode	2016 Mode Shares (TTS)	2028 Mode Shares
Auto Driver	67%	60%
Auto Passenger	13%	17%
Transit	7%	9%
GO Train	4%	5%
Walk & Cycle	5%	5%
Other	5%	5%
<b>Total</b>	<b>100%</b>	<b>100%</b>

Table 7: Trip Generation by Mode

Travel Mode	Mode Share	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto Driver	60%	8	25	34	28	16	44
Auto Passenger	17%	2	7	10	8	5	13
Transit	9%	1	4	5	4	2	7
GO Train	5%	1	2	3	2	1	4
Walk & Cycle	5%	1	2	3	2	1	4
Other	5%	1	2	3	2	1	4
<b>Total</b>	<b>100%</b>	<b>14</b>	<b>42</b>	<b>56</b>	<b>47</b>	<b>27</b>	<b>74</b>

As shown above, the proposed development is expected to generate 34 AM and 44 PM bi-directional peak hour auto trips, 10 AM and 13 PM bi-directional peak hour auto passenger trips, 8 AM and 11 PM bi-directional peak hour transit trips, including GO train, and 3 AM and 4 PM bi-directional peak hour walking and cycling trips. Other modes also make up 3 AM and 4 PM bi-directional peak hour trips. Per TTS, other modes may include motorcycle, school bus, taxi passenger, and paid rideshare trips.

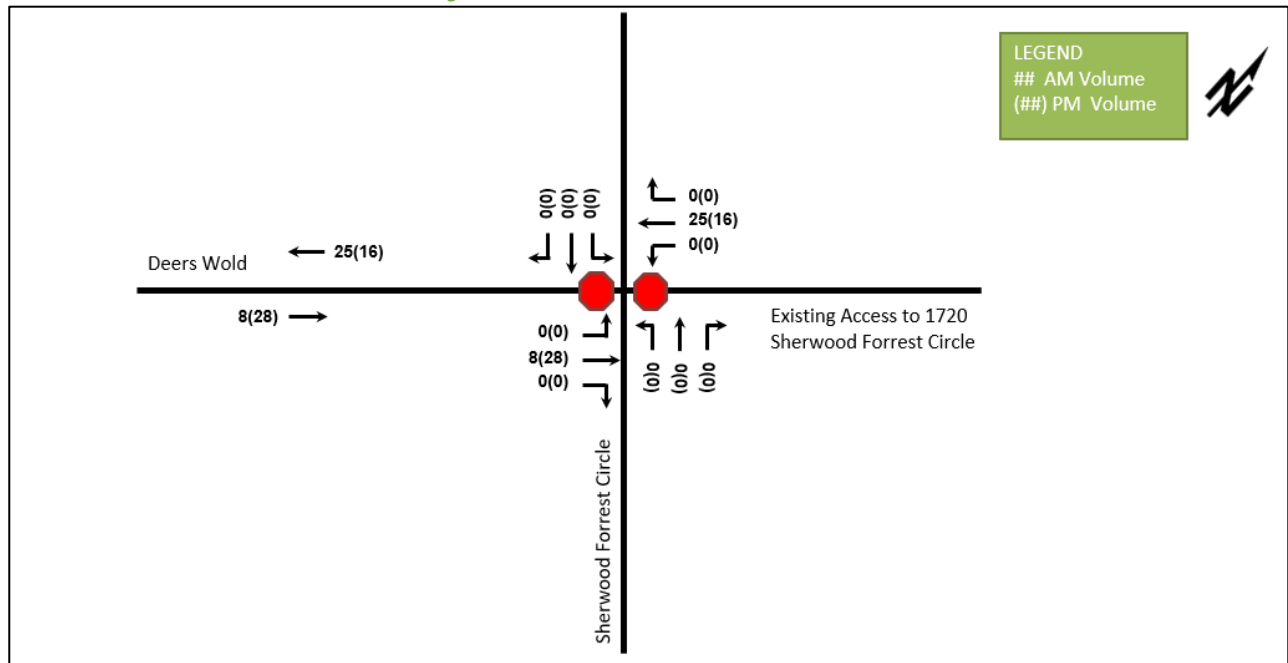
### 3 Neighbourhood Traffic Infiltration Review

The proposed development will utilize the existing access that forms the fourth leg of Sherwood Forrest and Deers Wold intersection. The proposed land use, a low-rise common element condominium, is consistent with the existing surrounding land uses. It is expected that residents of the proposed development will utilize Deers Wold to reach the City's arterial network as it is the most direct route to the nearby arterial roads. Thus, for the purposes of the infiltration study, it was assumed that all site traffic to and from the site will use Deers Wold at the intersection of Deers Wold / Site Access and Sherwood Forrest Circle. This is a conservative assumption, as some of the site traffic may use Sherwood Forrest Circle to travel southbound. Further, it was assumed that the study intersection will not experience any general background growth due to its location and surrounding build-out. Therefore, the 2028 Future Background volumes are expected to be equal to the Existing volumes at the studied intersection. The 2028 Future Background volumes and the forecasted site-generated auto volumes are shown in Figure 9 and Figure 10, respectively.

Figure 9: 2028 Future Background Traffic Volumes



Figure 10: 2028 Net Forecasted Site Volumes



The average annual daily traffic (AADT) for various road types based on typical characteristics in the 2017 TAC Geometric Design Guide for Canadian Roads (TAC Guide) is summarized in Table 8.

Table 8: TAC Guide AADT by Road Type – Residential Roads

Parameter	Road Type				
	Public Lanes	Locals	Collectors	Minor Arterials	Major Arterials
Traffic volume (veh/day) (typical)	< 500	< 1000	< 8000	5000 – 20000	10000 – 30000

Note: AADT calculated as two-way volumes

The typical future daily volumes along Deers Wold will be compared against the TAC Geometric Design Guide values provided in Table 8 above to determine if the Future Total traffic volumes exceed the theoretical capacity threshold of a local roadway. The AADT along Deers Wold will be estimated by using a 1:10 ratio of PM peak hour traffic. Table 9 summarizes the 2028 bi-directional AADT along Deers Wold.

Table 9: AADT – Deers Wold

Traffic Component	Eastbound	Westbound	Total	% Theoretical Threshold
<b>2028 Future Background Volumes</b>	10 (100 AADT)	7 (70 AADT)	17 (170 AADT)	17%
<b>Site Net Trip Generation</b>	28 (280 AADT)	16 (160 AADT)	44 (440 AADT)	44%
<b>Total</b>	<b>38</b> <b>(380 AADT)</b>	<b>23</b> <b>(230 AADT)</b>	<b>61</b> <b>(610 AADT)</b>	<b>61%</b>

Note: AADT determined by using 1:10 PM Peak volume ratio

As shown above, the proposed site trip generation is expected to use 44% of the AADT threshold of Deers Wold. When combined with the 2028 Future Background traffic, the bi-directional AADT along Deers Wold is 610 vehicles per day, which is 61% of the daily theoretical threshold for a local road. Thus, the projected traffic is below the theoretical AADT threshold of a local roadway.

Currently the intersection of Sherwood Forrest at Deers Wold includes relatively similar traffic volumes on each approach, excluding the non-functioning site access. A two-way stop control is present along east and west legs of the intersection. However, given the existing low volumes at this intersection, the addition of the site-generated trips will result in higher volume splits along the east-west direction. Further, given the anticipated pedestrian routes in the study area, discussed in Section 5.3.2, most pedestrian crossings at this intersection are expected at the northern and southern intersection legs (east-west crossings). Therefore, it is recommended that the two-way stop control is removed from Deers Wold and placed along Sherwood Forrest Circle to control northbound and southbound traffic.

## 4 Community Impacts

Located at the far end of Sherwood Forrest neighbourhood, the proposed subdivision is surrounded by an existing low-density residential community. The subject site utilizes the existing access to the former land use (seniors' residence) and does not include any new access points to the Sherwood Forrest neighbourhood via arterial roads. The current volumes at the intersection of Deers Wold and Sherwood Forrest are low and the intersection operates well. The Neighbourhood Infiltration Review shows that the Deers Wold average daily traffic will remain below the maximum threshold of volumes expected along a local residential road. Further, the proposed land use is such that the site will only generate local traffic and no cut-through traffic is expected as a result of the proposed development, as it does not include any accesses to the arterial road network. Thus, no traffic capacity issues are anticipated as a result of the subject site, and the proposed development is expected to align well with the existing area context.

## 5 Development Design

### 5.1 Safety Analysis

Elevated potential for operational or safety concerns was not noted at the site access. The site access is a part of an existing intersection and forms a perpendicular crossroad to Sherwood Forrest Circle, aligned with Deers Wold. Each intersection approach includes one shared movement lane, which precludes weaving or merging movements. The majority of site pedestrians are expected to use Deers Wold as the major route to enter and exit the development. The proposed modification to the Two-Way Stop Control at Deers Wold and Sherwood Forrest Circle will control the north and south legs of the intersection and facilitate east-west pedestrian crossing. Lastly, there are no existing school or transit routes that operate near the site access intersection.

### 5.2 Parking

#### 5.2.1 Vehicular Parking

The City of Mississauga Zoning By-Law 0225-2007 parking requirements for visitor and accessible spaces with their respective provisions for this development based on the proposed land uses are summarized in Table 10.

*Table 10: Vehicle Parking Zoning By-Law Requirement*

Type	Units	Parking Rate	Parking Spaces Required	Parking Spaces Provided
Condominium Detached Dwelling	56	Visitor: 0.25 / unit	14	14
		Accessible: 4% of the total for parking supply of 13 – 100	1	1

As shown in Table 10 above, the proposed development meets the Zoning By-Law parking requirements.

### 5.3 Site Circulation

#### 5.3.1 Turning Template Analysis

The proposed site plan and access configuration have been reviewed using three design vehicles, including a heavy single-unit truck (HSU), a pumper fire truck, and the Region of Peel waste collection vehicle. All the vehicle paths are accommodated by the proposed curbs and driveways for both inbound and outbound movements. Snow storage will be located within all green spaces indicated in the attached site plan. The turning template diagrams are provided in Appendix D.

When considering existing site constraints such as the location of natural features to the east and residential properties to the west, which are especially restrictive within the southern limits of the site, an alternative hammerhead vehicle turnaround space was proposed. This turnaround space exceeds the width and turning radius requirements illustrated in Appendix 3 of the Region of Peel Waste Collection Design Standards Manual (2020) and allows for similar maneuverability as the standard T-shaped hammerhead turnaround space, also accommodating the site constraints discussed above. As shown in Appendix D, the distance that a Region of Peel Waste Collection vehicle is required to reverse using the proposed configuration is in line with the Region's maximum threshold of 15 meters. Additionally, the turnaround space is located near a dead end of the proposed subdivision where resident familiarity with the waste vehicle operations and minimal pedestrian traffic is expected. As a result, it is anticipated that the waste collection vehicles can be accommodated without further site modifications.

#### 5.3.2 Pedestrian Circulation

There are numerous pedestrian destinations within one superblock of the proposed development. This includes sheltered bus stops, Sherwood Green Park, Sherwood Forrest Shopping Village, King Forrest Shoppes Plaza, and Erindale Secondary School. Additionally, the proposed improvements to the study area network include a Dundas

BRT station at Dundas Street and Erin Mills Parkway within 900 metres walk from the site, as well as bike lanes and pedestrian realm enhancements along Dundas Street. Pedestrians can access the mentioned destinations and facilities via King Forrest Drive and Deers Wold which lead to 1720 Sherwood Forrest from Dundas Street West.

Within the site, a 2-meter-wide concrete sidewalk is provided throughout the development on one side of the road. Protective measures such as tactile plates and stop controls on minor approaches will be provided where a major pedestrian path crosses the road. Additionally, pedestrian crossings will be designed to provide a visual separation between pedestrians and vehicular traffic.

Figure 11 illustrates pedestrian linkages throughout the site as well as connections to the nearby facilities. Pedestrian Circulation Checklist is provided in Appendix E.



Figure 11: Pedestrian Circulation Plan





### 5.3.3 TDM Statement

The proposed development is located in the Sherwood Forrest neighbourhood. Geographically, the site is also located at the southwest corner of the Dundas Street and Mississauga Road intersection, however it is mostly separated from Dundas Street and Mississauga Road by a natural heritage system and a steep grade. As the subject site is located in the far end of the Sherwood Forrest Neighbourhood, it is also surrounded by the existing low-rise dwellings to the west and to the south.

The Transportation Demand Management Checklist was reviewed while considering the aforementioned constraints and with the proposed land use in mind. Where a TDM measure was considered not applicable, a note on applicability was provided within the TDM Checklist. The TDM Checklist is attached in Appendix E.

Transportation Demand Management measures at the subject site are centered around improvements to the proposed site design. The majority of sustainable travel to and from the proposed development is expected to be made along Dundas Street, with major pedestrian / cyclist route along Deers Wold and King Forrest. This path enables site residents to access nearby pedestrian and cycling infrastructure, existing and future transit stops, parks, and shopping areas discussed in Section 1.

Within the site, a 2-meter-wide sidewalk is provided throughout the development on one side of the road. Protective measures such as tactile plates and textured pedestrian crosswalks are proposed where a road intersects a sidewalk. Further, at the site access intersection of Sherwood Forrest and Deers Wold, a two-way stop control is recommended to be relocated to regulate traffic from north and south legs and facilitate east-west pedestrian crossings.

Table 11 provides the proposed TDM measures, the expected effectiveness, estimated implementation and ongoing costs, party responsible for implementation, target audience as well as an indication on how the measures will support the overall strategy. The resulting TDM score of the proposed measures is 71%, which meets the City of Mississauga's requirement. A detailed breakdown of the TDM score can be found in Appendix E.

Table 11: Proposed TDM Measures

ID	Proposed TDM Features	Location / Description	Est. Impl. and Ongoing Costs	Responsible Party	Target Audience	Impact on Sustainable Modes
A1	Development located within 800 m walking distance of residential (if employment) or employment (if residential) uses	Sherwood Forrest Shopping Village, King Forrest Shoppes	N/A	N/A	Pedestrians	Enables walking trips for employees destined to nearby shopping plazas
A3	At least one functional building entrance oriented towards public space (i.e., street, park, square)	All buildings on site	N/A	Developer		Provides safer pedestrian environment, encouraging pedestrian trips
A4	At least one functional building entrance located close to on-site or adjacent street transit stop	All buildings on site	N/A	Developer		Encourages first and last mile travel by walking to and from transit
A5	Nearest functional building entrance located within 50 m of (and connected to) public street with sidewalk	All buildings on site	N/A	Developer		Ensures pedestrians have direct access to pedestrian network
A6	Accessible on-site pedestrian routes provided and connected to surrounding network and transit	Sidewalks, and 10 tactile plates at crossings provided	Tactile plate implementation \$30,600 See below for sidewalk costs	Developer		Ensures all users can utilize the major pedestrian routes between the site and the nearby destinations
A7	Continuous sidewalks (1.5 m min. width) provided along all on-site roads and both sides of adjacent public streets	2.0-meter-wide concrete sidewalk provided on site, 1.5 meter sidewalk provided on one side of Deers Wold (local road with low traffic) and both sides of King Forrest Drive and Dundas Street	Sidewalk Implementation \$189,000	Developer (on-site), City (public ROW)		Ensures that no pedestrian network gaps are present that may discourage pedestrian travel
A9	Adequate and properly designed pedestrian crossings provided on-site	Textured pedestrian crossings provided to visually separate pedestrian route and vehicle traffic	\$23,500	Developer		Provides safer pedestrian environment
A11	Amenities provided along pedestrian routes (i.e., benches, street furniture)	Four benches are proposed within the common element areas	Bench and concrete pad implementation \$10,000	Developer		Provides safer pedestrian environment, and an opportunity for users who may find walking challenging to take a break
A11	Shelters and benches provided at transit stops	Benches and shelters provided at nearest transit stops	N/A	City		Provides an opportunity for users who may find standing for extended periods of time challenging to take a break, makes wait time during bad weather conditions more manageable
A12	Wayfinding provided to guide pedestrians	Wayfinding signage provided at the site access	Implementation of one sign \$900	Developer		Allows users who would not typically choose walking to use the most direct route to nearby destinations

<b>A13</b>	Lighting provided along pedestrian routes	Lighting provided along all on-site sidewalks	LED light fixture implementation \$82,500	Developer		Provides safer pedestrian environment
<b>B1</b>	On-site cycling routes provided and connected to the surrounding network	Connection provided to Dundas Street via Deers Wold and King Forrest Drive, leading to bike lanes along Mississauga Road and future bike lanes along Dundas Street	N/A	Developer	Cyclists	Enables walking trips for patrons and students destined to transit, shopping, school, or nearby cycling facilities
<b>B2</b>	Class A (long-term) and Class B (short-term) bicycle parking spaces provided per City of Mississauga Zoning By-law (reproduced at end of this checklist for reference)	Resident and visitor bike parking can happen within each resident's home	N/A	Developer		Ensures cyclists have a safe place to park their bicycle
<b>B4</b>	Wayfinding provided to guide cyclists	Wayfinding signage provided at site access	Implementation of one sign \$900	Developer		Allows users who would not typically choose cycling to use the most direct route to nearby destinations
<b>C3</b>	Sufficient capacity available to accommodate transit riders generated by development	The proposed development is expected to generate negligible number of transit trips due to the size of the proposed development (a maximum of 4 trips per hour in peak direction)	N/A	N/A		Ensures MiWay is informed of any sizeable impacts to transit demand
<b>E7</b>	Building owner/tenant will become a member of a local TMA and appoint a TDM Coordinator to oversee and coordinate promotional opportunities and events on site	The condominium manager will be responsible for liaising with a local MTA	N/A / part of condo manager's salary	Condo management / TMA	All Non-Auto Modes	Ensures residents are informed of local TMA promotions and incentives

## 6 Conclusions

This Scoped Traffic Operations Review has examined the trip generation and design of the proposed development at 1720 Sherwood Forrest Circle in Mississauga. The Traffic Operations Review has shown the following:

- A. The proposed development includes 56 single detached homes.
- B. The proposed site will utilize the existing full movement access to the former retirement home, which forms the fourth leg of the Sherwood Forrest Circle and Deers Wold intersection.
- C. The existing Study Area is currently served by MiWay Route #1
- D. The proposed development is projected to result in 34 AM and 44 PM peak hour two-way auto trips and will have a minimal impact on the adjacent road network.
- E. The results of the traffic infiltration study for Deers Wold show that future total volumes, including site generated traffic, are below the average annual daily traffic threshold for a local residential road.
- F. It is recommended that the Two-Way Stop Control at Deers Wold and Sherwood Forrest Circle be relocated to control the north and the south legs of the intersection and facilitate east-west pedestrian crossings.
- G. All design vehicle turning paths are accommodated by the proposed curbs and driveways.
- H. Pedestrian facilities proposed within the site will provide safe, direct, convenient connections from the site leading to municipal sidewalks, transit stops, green spaces, commercial areas, and more.
- I. The proposed TDM measures result in 71% TDM Score, which meets the City of Mississauga's requirements.

The proposed development will function within the study area road network. It is recommended that, from a transportation perspective, the proposed development application process proceeds.

Prepared by:

Reviewed by:



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# Appendix A

Pre-Study Consultation Checklist and Certification Form



# Appendix B

## Pre-Study Consultation Checklist

Description	Information	Section Reference
<b>Development Information</b>		
Development Description (land use, size, and number of phases of development)	<ul style="list-style-type: none"> <li>Phase 1: 55 Common Element Condo Single Detached Homes</li> <li>Phase 2:</li> <li>Phase 3:</li> </ul>	2.3.6
<b>Transportation Impact Assessment</b>		
<b>Step 1 – Screening</b>		
Type of Application (attach a drawing)	<input type="checkbox"/> Official Plan Amendment <input type="checkbox"/> Zoning Amendment <input type="checkbox"/> Site Plan Control Application <input type="checkbox"/> Plan of Subdivision <input checked="" type="checkbox"/> Other: Common Element Condo	2.3.5
Screening Criteria	<input checked="" type="checkbox"/> Trip Generation Trigger Satisfied <input type="checkbox"/> Location Trigger Satisfied <input type="checkbox"/> Operational/Safety Trigger Satisfied	2.2.1
Type of Study	<input type="checkbox"/> Transportation Impact Study <input checked="" type="checkbox"/> Access Review <input type="checkbox"/> No Additional Study Required	2.2.1
<b>Step 2 – Scoping</b>		
Study Area (intersections to be analyzed)  Note: The Transportation Consultant is responsible to identify any further intersections impacted as the study progresses.	<ul style="list-style-type: none"> <li>Due to the fact that the subject site is a redevelopment and the proposed unit count is only 5 units above the minimum threshold of trip generation trigger, it is recommended that the Study Area includes the existing site access at Deers Wold and Sherwood Forrest Circle for the purpose of examining existing conditions at the site access only. This is in line with requirements outlined in Table 2.2 of the Mississauga TIS Guidelines.</li> </ul>	2.3.8
Horizon Years	<input type="checkbox"/> 5 years from date of TIS	2.3.9

Description	Information	Section Reference
	<input type="checkbox"/> Interim years _____ <input checked="" type="checkbox"/> Other <u>N/A for Access Reviews</u>	
Analysis Periods	<input checked="" type="checkbox"/> AM weekday peak hour of adjacent roadway <input checked="" type="checkbox"/> PM weekday peak hour of adjacent roadway <input type="checkbox"/> Saturday peak hour of adjacent roadway <input type="checkbox"/> AM weekday peak hour of development <input type="checkbox"/> PM weekday peak hour of development <input type="checkbox"/> Saturday peak hour of development <input type="checkbox"/> Other _____	2.3.10
Input Parameters and Assumptions (potential deviations)	<ul style="list-style-type: none"> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	2.3.13
Existing Transportation Conditions	<input type="checkbox"/> City data sources <u>TMCs at Sherwood Forrest Cir and</u> <input checked="" type="checkbox"/> New data collection <u>Deers Wold to be counted by Ontario</u> <input type="checkbox"/> Other <u>Traffic Inc.</u>	2.3.14
Planned Network Improvements (with timing)	<ul style="list-style-type: none"> <li>• N/A for Access Reviews</li> <li>•</li> <li>•</li> </ul>	2.3.16
Other Planned Developments (per <a href="#">City's Website</a> )	<ul style="list-style-type: none"> <li>• N/A for Access Reviews</li> <li>•</li> <li>• the need for NTMP will be determined at a later stage once the % difference in AADT can be calculated using existing traffic counts and the development trip generation</li> <li>•</li> <li>•</li> </ul>	2.3.17
Identification of Mitigation Improvement Measures	<input type="checkbox"/> Neighbourhood Traffic Management Plan <input type="checkbox"/> Other _____	2.3.23
Safety Analysis (any special issues)	<ul style="list-style-type: none"> <li>• Elevated potential for operational or safety concern was</li> <li>• not noted at the site access. The proposed development</li> <li>• utilizes existing TWSC four-legged intersection as an</li> <li>• access.</li> </ul>	2.3.25
Site Access and Circulation (design vehicles)	<input type="checkbox"/> Passenger Car (P) <input type="checkbox"/> Light Single Unit Truck (LSU) <input type="checkbox"/> Medium Single Unit Truck (MSU) <input checked="" type="checkbox"/> Heavy Single Unit Truck (HSU) <input checked="" type="checkbox"/> Pumper Fire Truck <input type="checkbox"/> WB-20 Tractor Semi-Trailer Truck <input type="checkbox"/> Other _____	2.3.26
Impacts During Construction (any special issues)	<ul style="list-style-type: none"> <li>• No special construction issues have been noted for this</li> <li>• site. Sufficient space is available within the site to</li> <li>• accommodate contractor parking during construction.</li> <li>•</li> </ul>	2.3.27

Description	Information	Section Reference
<b>Step 3 – Forecasting</b>		
Growth Rate	<input type="checkbox"/> Obtained from City <input type="checkbox"/> Historical traffic counts <input type="checkbox"/> Travel demand forecasts <input checked="" type="checkbox"/> Proposed Growth Rate: <u>N/A for Access Reviews</u>	2.3.15
Site Trip Generation	<input checked="" type="checkbox"/> ITE Trip Generation Manual <input type="checkbox"/> "First Principles" <input type="checkbox"/> Observed rates for similar developments in area <input type="checkbox"/> Other _____	2.3.19
Trip Reductions	<input type="checkbox"/> Internal capture reductions for mixed-use developments <input type="checkbox"/> Pass-by reductions <input checked="" type="checkbox"/> Other <u>none</u>	2.3.19
Trip Distribution	<input type="checkbox"/> Local traffic patterns <input type="checkbox"/> TTS <input type="checkbox"/> Travel demand model <input type="checkbox"/> Population and employment distribution <input type="checkbox"/> Market analysis of catchment area <input checked="" type="checkbox"/> Other <u>N/A for Access Reviews</u>	2.3.20
Trip Assignment	<input type="checkbox"/> Local traffic patterns <input type="checkbox"/> Shortest distance <input type="checkbox"/> Site layout, access design and logical routing <input type="checkbox"/> Existing turning movements <input checked="" type="checkbox"/> Other <u>N/A for Access Reviews</u>	2.3.21
<b>Transportation Demand Management Plan</b>		
Format	<input checked="" type="checkbox"/> Within a TIA Report <input type="checkbox"/> Standalone	3.2.1
Type of Transportation Demand Management Plan	<input checked="" type="checkbox"/> TDM Statement <input type="checkbox"/> TDM Scheme	3.2.2
<b>Pedestrian Circulation Plan</b>		
Format	<input checked="" type="checkbox"/> Within a TIA Report <input type="checkbox"/> Standalone	4.2.1
<b>Additional Comments</b>		

# Appendix A

## Certification Form

Individuals submitting 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 Mississauga's Official Plan, Transportation Master Plan, and Transportation Impact Study Guidelines.


By submitting the attached report (and any associated documents) and signing this document, I acknowledge that:

- I have reviewed and have a sound understanding of the objectives, needs, and requirements of the City of Mississauga's Official Plan, Transportation Master Plan, and the Transportation Impact Study Guidelines as they apply to this submission;
- I have sound knowledge of industry standard practices pertaining to the preparation of development-related transportation study reports;
- I have substantial experience (more than five years) in completing development-related transportation studies and strong background knowledge of the transportation planning and engineering principles underpinning these studies; and
- I am registered as a Professional Engineer (P.Eng.), Licensed Engineering Technologist (LET), Certified Engineering Technologist (C.E.T.), or Registered Professional Planner (RPP) in good standing in the Province of Ontario with specific training in transportation planning and engineering.

Dated at Newmarket this 02 day of May, 2023.  
(City)

Name: Mark Crockford

Professional Title: Professional Engineer

Signature:  \_\_\_\_\_

### Office Contact Information (Please Print)

Address: 628 Haines Road

City/Postal Code: Newmarket / L3Y 6V5

Telephone/Extension: (905) 251-4070

E-mail Address: Mark.Crockford@CGHTransportation.com

# Appendix B

Turning Movement Count Data



## Project #23-181 - CGH Transportation

### Intersection Count Report

**Intersection:** Sherwood Forrest Circle & Deers Wold (east leg) - Private Access

**Municipality:** Mississauga

**Count Date:** Wednesday, Jun 14, 2023

**Site Code:** 2318100001

**Count Categories:** Cars, Trucks, Bicycles, Pedestrians

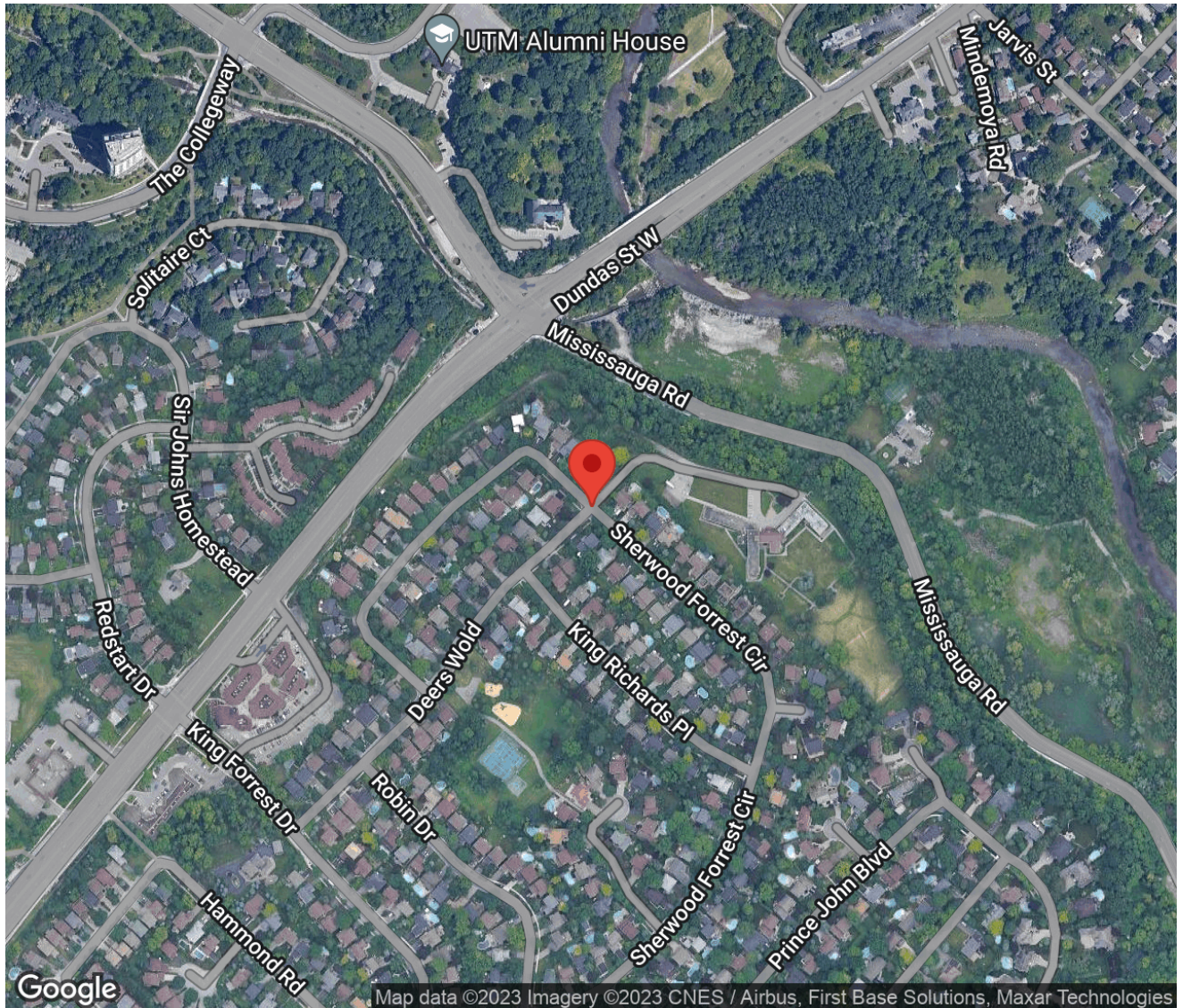
**Count Period:** 07:00-10:00, 16:00-19:00

**Weather:** Clear

**Comments:**

## Traffic Count Map

Intersection:	Sherwood Forrest Circle & Deers Wold (east leg) - Private Access
Site Code:	2318100001
Municipality:	Mississauga
Count Date:	Jun 14, 2023



## Traffic Count Summary

Intersection: Sherwood Forrest Circle & Deers Wold  
(east leg) - Private Access  
Site Code: 2318100001  
Municipality: Mississauga  
Count Date: Jun 14, 2023

### Sherwood Forrest Circle - Traffic Summary

Hour	North Approach Totals						South Approach Totals						Total
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	
07:00 - 08:00	0	1	1	0	2	0	4	0	0	0	4	4	6
08:00 - 09:00	0	0	4	0	4	0	9	0	0	0	9	1	13
09:00 - 10:00	0	2	1	0	3	0	5	2	0	0	7	0	10
BREAK													
16:00 - 17:00	0	1	1	0	2	0	4	2	0	0	6	1	8
17:00 - 18:00	0	1	2	0	3	0	4	0	0	0	4	0	7
18:00 - 19:00	0	1	1	0	2	1	8	1	0	0	9	0	11
GRAND TOTAL	0	6	10	0	16	1	34	5	0	0	39	6	55

## Traffic Count Summary

Intersection: Sherwood Forrest Circle & Deers Wold  
(east leg) - Private Access  
Site Code: 2318100001  
Municipality: Mississauga  
Count Date: Jun 14, 2023

### Private Access - Traffic Summary

Hour	East Approach Totals						West Approach Totals						Total
	Includes Cars, Trucks, Bicycles						Includes Cars, Trucks, Bicycles						
	Left	Thru	Right	U-Turn	Total	Peds	Left	Thru	Right	U-Turn	Total	Peds	
07:00 - 08:00	0	0	0	0	0	2	1	0	1	0	2	4	2
08:00 - 09:00	0	0	0	0	0	1	2	0	2	0	4	3	4
09:00 - 10:00	0	0	0	0	0	0	3	0	2	0	5	2	5
BREAK													
16:00 - 17:00	0	1	0	0	1	0	5	0	4	0	9	1	10
17:00 - 18:00	0	0	0	0	0	3	1	0	6	0	7	3	7
18:00 - 19:00	0	0	0	0	0	2	1	0	6	0	7	6	7
GRAND TOTAL	0	1	0	0	1	8	13	0	21	0	34	19	35

[illegible]



[illegible]



## Traffic Count Data

Intersection: Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
 Site Code: 2318100001  
 Municipality: Mississauga  
 Count Date: Jun 14, 2023

### South Approach - Sherwood Forrest Circle

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
07:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
07:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
08:00	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	1
08:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
08:30	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0
08:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
09:00	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
09:15	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0
09:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
<b>SUBTOTAL</b>	17	2	0	0	19	1	0	0	0	1	0	0	0	0	0	5

## Traffic Count Data

Intersection: Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
 Site Code: 2318100001  
 Municipality: Mississauga  
 Count Date: Jun 14, 2023

### South Approach - Sherwood Forrest Circle

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↻	Total	←	↑	→	↻	Total	←	↑	→	↻	Total	
16:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16:15	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	2	1	0	0	3	1	0	0	0	1	0	0	0	0	0	1
17:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
17:15	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
18:15	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
18:30	2	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0
18:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	15	3	0	0	18	1	0	0	0	1	0	0	0	0	0	1
GRAND TOTAL	32	5	0	0	37	2	0	0	0	2	0	0	0	0	0	6

[illegible]

[illegible]

## Traffic Count Data

Intersection: Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
 Site Code: 2318100001  
 Municipality: Mississauga  
 Count Date: Jun 14, 2023

### West Approach - Deers Wold (east leg)

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
07:00	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
08:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
08:15	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
08:30	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
08:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
09:00	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	1
09:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
09:30	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
09:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
<b>SUBTOTAL</b>	5	0	5	0	10	1	0	0	0	1	0	0	0	0	0	9

## Traffic Count Data

Intersection: Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
 Site Code: 2318100001  
 Municipality: Mississauga  
 Count Date: Jun 14, 2023

### West Approach - Deers Wold (east leg)

Start Time	Cars					Trucks					Bicycles					Total Peds
	←	↑	→	↺	Total	←	↑	→	↺	Total	←	↑	→	↺	Total	
16:00	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	1
16:15	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0
16:30	2	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
17:00	1	0	3	0	4	0	0	0	0	0	0	0	0	0	0	1
17:15	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
18:00	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	4
18:15	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
18:30	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	1
18:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL	6	0	16	0	22	1	0	0	0	1	0	0	0	0	0	10
GRAND TOTAL	11	0	21	0	32	2	0	0	0	2	0	0	0	0	0	19



## Peak Hour Diagram

### Specified Period

From: 07:00:00  
To: 10:00:00

### One Hour Peak

From: 07:45:00  
To: 08:45:00




**Intersection:** Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
**Site Code:** 2318100001  
**Count Date:** Jun 14, 2023

**Weather conditions:** Clear




### \*\* Unsignalized Intersection \*\*





**Major Road:** Sherwood Forrest Circle runs N/S

#### North Approach




	Out	In	Total
	5	3	8
	0	0	0
	0	0	0
<b>Totals</b>	<b>5</b>	<b>3</b>	<b>8</b>

#### Sherwood Forrest Circle








	0	0	0	0
	0	0	0	0
	4	1	0	0
<b>Totals</b>	<b>4</b>	<b>1</b>	<b>0</b>	<b>0</b>

#### East Approach

	Out	In	Total
	0	0	0
	0	0	0
	0	0	0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>

#### Deers Wold (east leg)

				Totals
	0	0	0	0
	0	0	3	3
	0	0	0	0
	0	0	2	2

Peds: 5










Peds: 0




Peds: 3








Peds: 1

#### Private Access

Totals			
	0	0	0
	0	0	0
	0	0	0
	0	0	0




#### West Approach

	Out	In	Total
	5	12	17
	0	1	1
	0	0	0
<b>Totals</b>	<b>5</b>	<b>13</b>	<b>18</b>


Totals				
	9	0	0	0
	1	0	0	0
	0	0	0	0

#### Sherwood Forrest Circle

#### South Approach

	Out	In	Total
	8	3	11
	1	0	1
	0	0	0
<b>Totals</b>	<b>9</b>	<b>3</b>	<b>12</b>

 - Cars

 - Trucks

 - Bicycles

### Comments

## Peak Hour Summary

Intersection: Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
 Site Code: 2318100001  
 Count Date: Jun 14, 2023  
 Period: 07:00 - 10:00

### Peak Hour Data (07:45 - 08:45)

Start Time	North Approach Sherwood Forrest Circle						South Approach Sherwood Forrest Circle						East Approach Private Access						West Approach Deers Wold (east leg)						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
07:45	0	1	0	0	0	1	1	0	0	0	2	1	0	0	0	0	0	0	1	0	0	0	3	1	3
08:00	0	0	1	0	0	1	3	0	0	0	1	3	0	0	0	0	1	0	1	0	0	0	2	1	5
08:15	0	0	1	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	1	0	1	0	0	2	5
08:30	0	0	2	0	0	2	3	0	0	0	0	3	0	0	0	0	0	0	0	0	1	0	0	1	6
Grand Total	0	1	4	0	0	5	9	0	0	0	3	9	0	0	0	0	1	0	3	0	2	0	5	5	19
Approach %	0	20	80	0	-	-	100	0	0	0	-	-	0	0	0	0	-	-	60	0	40	0	-	-	-
Totals %	0	5.3	21.1	0	-	26.3	47.4	0	0	0	-	47.4	0	0	0	0	-	0	15.8	0	10.5	0	-	26.3	-
PHF	0	0.25	0.5	0	-	0.63	0.75	0	0	0	-	0.75	0	0	0	0	-	0	0.75	0	0.5	0	-	0.63	0.79
Cars	0	1	4	0	-	5	8	0	0	0	-	8	0	0	0	0	-	0	3	0	2	0	-	5	18
% Cars	0	100	100	0	-	100	88.9	0	0	0	-	88.9	0	0	0	0	-	0	100	0	100	0	-	100	94.7
Trucks	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Trucks	0	0	0	0	-	0	11.1	0	0	0	-	11.1	0	0	0	0	-	0	0	0	0	0	-	0	5.3
Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
Peds	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	5	-	9
% Peds	-	-	-	-	0	-	-	-	-	-	33.3	-	-	-	-	-	11.1	-	-	-	-	-	55.6	-	-

## Peak Hour Diagram

### Specified Period

From: 16:00:00

To: 19:00:00

### One Hour Peak

From: 16:15:00

To: 17:15:00

### Intersection:

Sherwood Forrest Circle & Deers Wold (east leg) - Private Access

### Site Code:

2318100001

### Count Date:

Jun 14, 2023




### Weather conditions:

Clear




### \*\* Unsignalized Intersection \*\*





**Major Road:** Sherwood Forrest Circle runs N/S

### North Approach




	Out	In	Total
	4	6	10
	0	1	1
	0	0	0
<b>Totals</b>	<b>4</b>	<b>7</b>	<b>11</b>

### Sherwood Forrest Circle




	0	0	0	0
	0	0	0	0
	3	1	0	0
<b>Totals</b>	<b>3</b>	<b>1</b>	<b>0</b>	<b>0</b>










### East Approach

	Out	In	Total
	0	0	0
	0	0	0
	0	0	0
<b>Totals</b>	<b>0</b>	<b>0</b>	<b>0</b>

### Deers Wold (east leg)

				Totals
	0	0	0	0
	0	1	4	5
	0	0	0	0
	0	0	5	5

Peds: 0










Peds: 1

Peds: 1




Peds: 1








### Private Access

Totals			
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0




### West Approach

	Out	In	Total
	9	6	15
	1	1	2
	0	0	0
<b>Totals</b>	<b>10</b>	<b>7</b>	<b>17</b>

Totals				
	4	2	0	0
	1	0	0	0
	0	0	0	0

### Sherwood Forrest Circle

### South Approach

	Out	In	Total
	5	6	11
	1	0	1
	0	0	0
<b>Totals</b>	<b>6</b>	<b>6</b>	<b>12</b>

 - Cars

 - Trucks

 - Bicycles

### Comments

## Peak Hour Summary

Intersection: Sherwood Forrest Circle & Deers Wold (east leg) - Private Access  
 Site Code: 2318100001  
 Count Date: Jun 14, 2023  
 Period: 16:00 - 19:00

### Peak Hour Data (16:15 - 17:15)

Start Time	North Approach Sherwood Forrest Circle						South Approach Sherwood Forrest Circle						East Approach Private Access						West Approach Deers Wold (east leg)						Total Vehicles
	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	←	↑	→	↻	Peds	Total	
16:15	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	2	3
16:30	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	3	5
16:45	0	0	0	0	0	0	3	1	0	0	1	4	0	0	0	0	0	0	0	0	1	0	0	1	5
17:00	0	0	2	0	0	2	1	0	0	0	0	1	0	0	0	0	1	0	1	0	3	0	1	4	7
Grand Total	0	1	3	0	0	4	4	2	0	0	1	6	0	0	0	0	1	0	5	0	5	0	1	10	20
Approach %	0	25	75	0	-	-	66.7	33.3	0	0	-	-	0	0	0	0	-	-	50	0	50	0	-	-	-
Totals %	0	5	15	0	-	20	20	10	0	0	-	30	0	0	0	0	-	0	25	0	25	0	-	50	-
PHF	0	0.25	0.38	0	-	0.5	0.33	0.5	0	0	-	0.38	0	0	0	0	-	0	0.63	0	0.42	0	-	0.63	0.71
Cars	0	1	3	0	-	4	3	2	0	0	-	5	0	0	0	0	-	0	4	0	5	0	-	9	18
% Cars	0	100	100	0	-	100	75	100	0	0	-	83.3	0	0	0	0	-	0	80	0	100	0	-	90	90
Trucks	0	0	0	0	-	0	1	0	0	0	-	1	0	0	0	0	-	0	1	0	0	0	-	1	2
% Trucks	0	0	0	0	-	0	25	0	0	0	-	16.7	0	0	0	0	-	0	20	0	0	0	-	10	10
Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
Peds	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	1	-	3
% Peds	-	-	-	-	0	-	-	-	-	-	33.3	-	-	-	-	-	33.3	-	-	-	-	-	33.3	-	-

















# Appendix C

2023 Existing Synchro Analysis

# HCM Unsignalized Intersection Capacity Analysis

## 1: Sherwood Forrest Circle & Deers Wold/Site Access

2023 Existing AM  
1720 Sherwood Forrest Circle

















												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	0	2	0	0	0	9	0	0	0	1	4
Future Volume (Veh/h)	3	0	2	0	0	0	9	0	0	0	1	4
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	3	0	2	0	0	0	10	0	0	0	1	4
Pedestrians	5			1			3					
Lane Width (m)	3.5			3.5			3.5					
Walking Speed (m/s)	1.2			1.2			1.2					
Percent Blockage	0			0			0					
Right turn flare (veh)												
Median type							None			None		
Median storage veh												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	28	29	11	29	31	1	10				1	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	28	29	11	29	31	1	10				1	
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.2				4.1	
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.3				2.2	
p0 queue free %	100	100	100	100	100	100	99				100	
cM capacity (veh/h)	969	854	1063	967	852	1083	1546				1620	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	5	0	10	5								
Volume Left	3	0	10	0								
Volume Right	2	0	0	4								
cSH	1005	1700	1546	1620								
Volume to Capacity	0.00	0.00	0.01	0.00								
Queue Length 95th (m)	0.1	0.0	0.1	0.0								
Control Delay (s)	8.6	0.0	7.3	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	0.0	7.3	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay				5.8								
Intersection Capacity Utilization				18.3%	ICU Level of Service			A				
Analysis Period (min)				15								



# HCM Unsignalized Intersection Capacity Analysis

## 1: Sherwood Forrest Circle & Deers Wold/Site Access

2023 Existing PM  
1720 Sherwood Forrest Circle

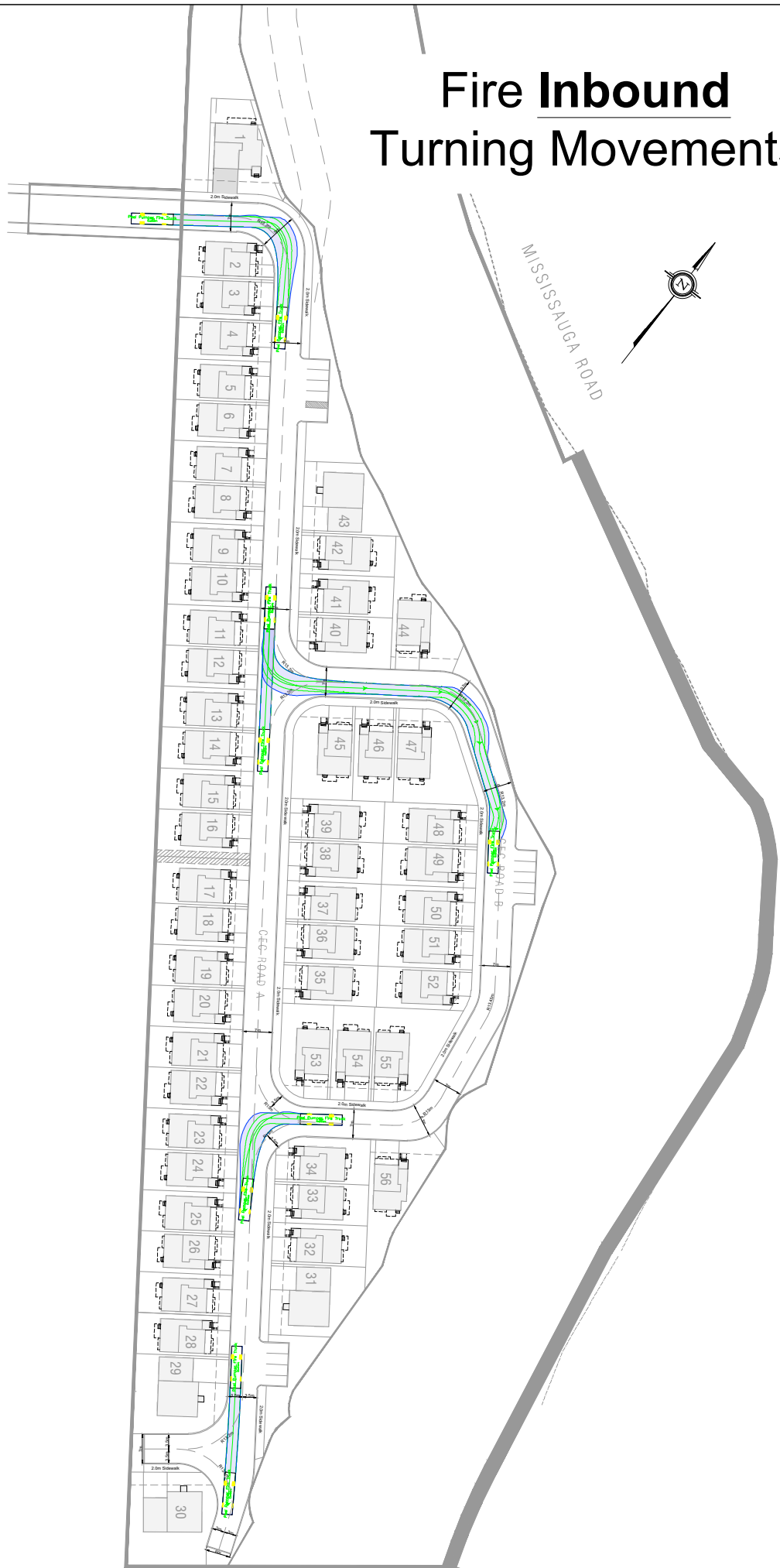
												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	5	0	5	0	0	0	4	2	0	0	1	3
Future Volume (Veh/h)	5	0	5	0	0	0	4	2	0	0	1	3
Sign Control	Stop			Stop			Free			Free		
Grade	0%			0%			0%			0%		
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	6	0	6	0	0	0	4	2	0	0	1	3
Pedestrians	1			1			1					
Lane Width (m)	3.5			3.5			3.5					
Walking Speed (m/s)	1.2			1.2			1.2					
Percent Blockage	0			0			0					
Right turn flare (veh)												
Median type							None			None		
Median storage (veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	14	14	4	20	16	3	5				3	
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	14	14	4	20	16	3	5				3	
tC, single (s)	7.3	6.5	6.2	7.1	6.5	6.2	4.3				4.1	
tC, 2 stage (s)												
tF (s)	3.7	4.0	3.3	3.5	4.0	3.3	2.4				2.2	
p0 queue free %	99	100	99	100	100	100	100				100	
cM capacity (veh/h)	954	876	1077	982	874	1080	1477				1618	
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	12	0	6	4								
Volume Left	6	0	4	0								
Volume Right	6	0	0	3								
cSH	1012	1700	1477	1618								
Volume to Capacity	0.01	0.00	0.00	0.00								
Queue Length 95th (m)	0.3	0.0	0.1	0.0								
Control Delay (s)	8.6	0.0	5.0	0.0								
Lane LOS	A	A	A									
Approach Delay (s)	8.6	0.0	5.0	0.0								
Approach LOS	A	A										
Intersection Summary												
Average Delay	6.0											
Intersection Capacity Utilization	14.5%			ICU Level of Service					A			
Analysis Period (min)	15											

# Appendix D

Turning Template Analysis

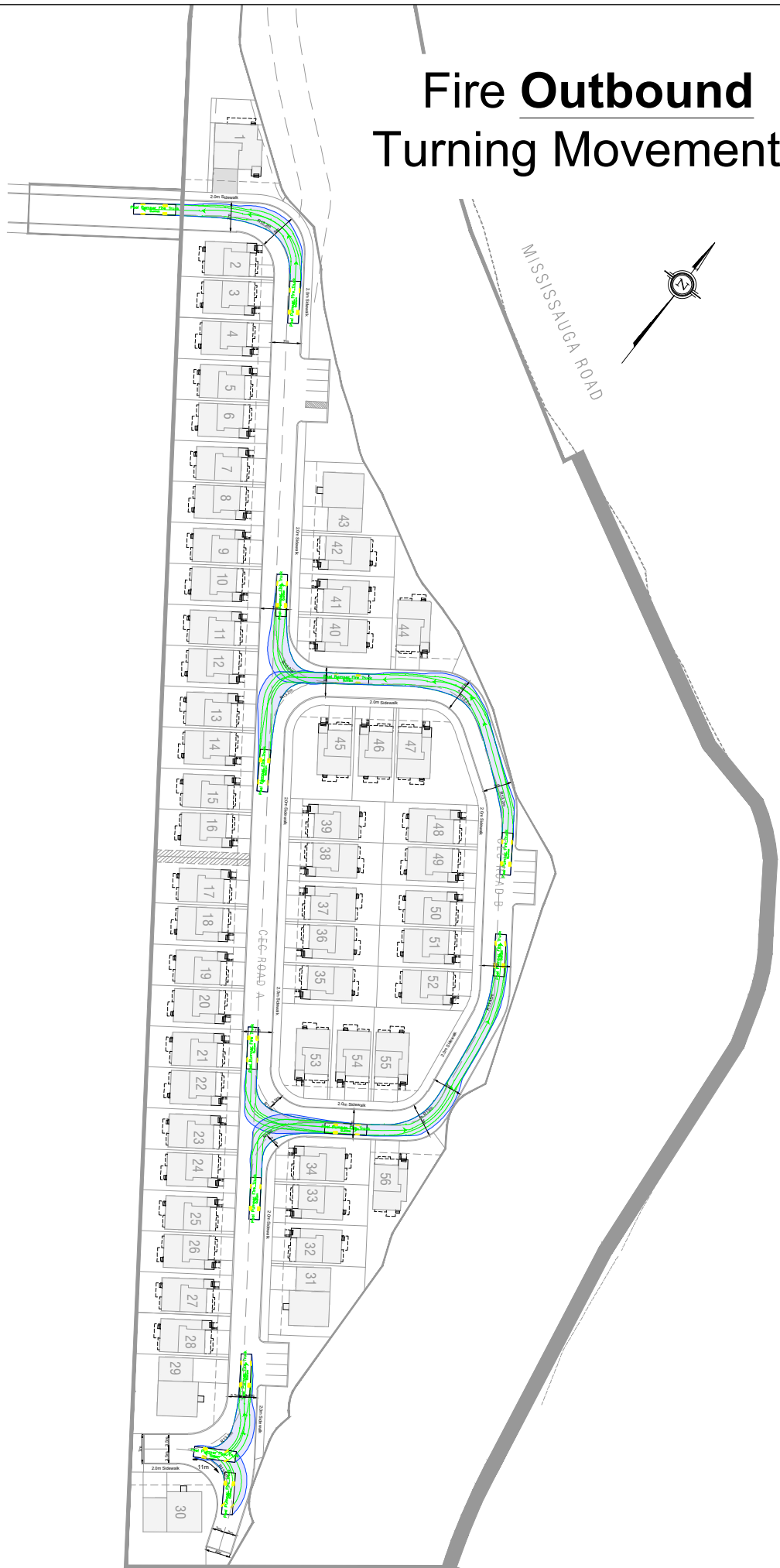
# Fire Inbound Turning Movements

SHERWOOD FORREST CIRCLE

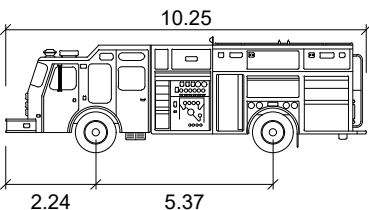


# Fire Outbound Turning Movements

SHERWOOD FORREST CIRCLE



Notes:



Peel Pumper Fire Truck		Peel Pumper Fire Truck	Peel Pumper Fire Truck
Width	:	2.59	meters
Track	:	2.59	meters
Lock to Lock Time	:	6.0	seconds
Steering Angle	:	37.8	degrees

05	Issued for Review	AN	2024-05-03
REV:	DESCRIPTION:	BY:	DATE:
STATUS:			



CGH Transportation  
628 Haines Road  
Newmarket, ON  
L3Y 6V5  
(905) 251-4070

CLIENT: Sherwood Forrest Limited Partnership

ARCHITECT:

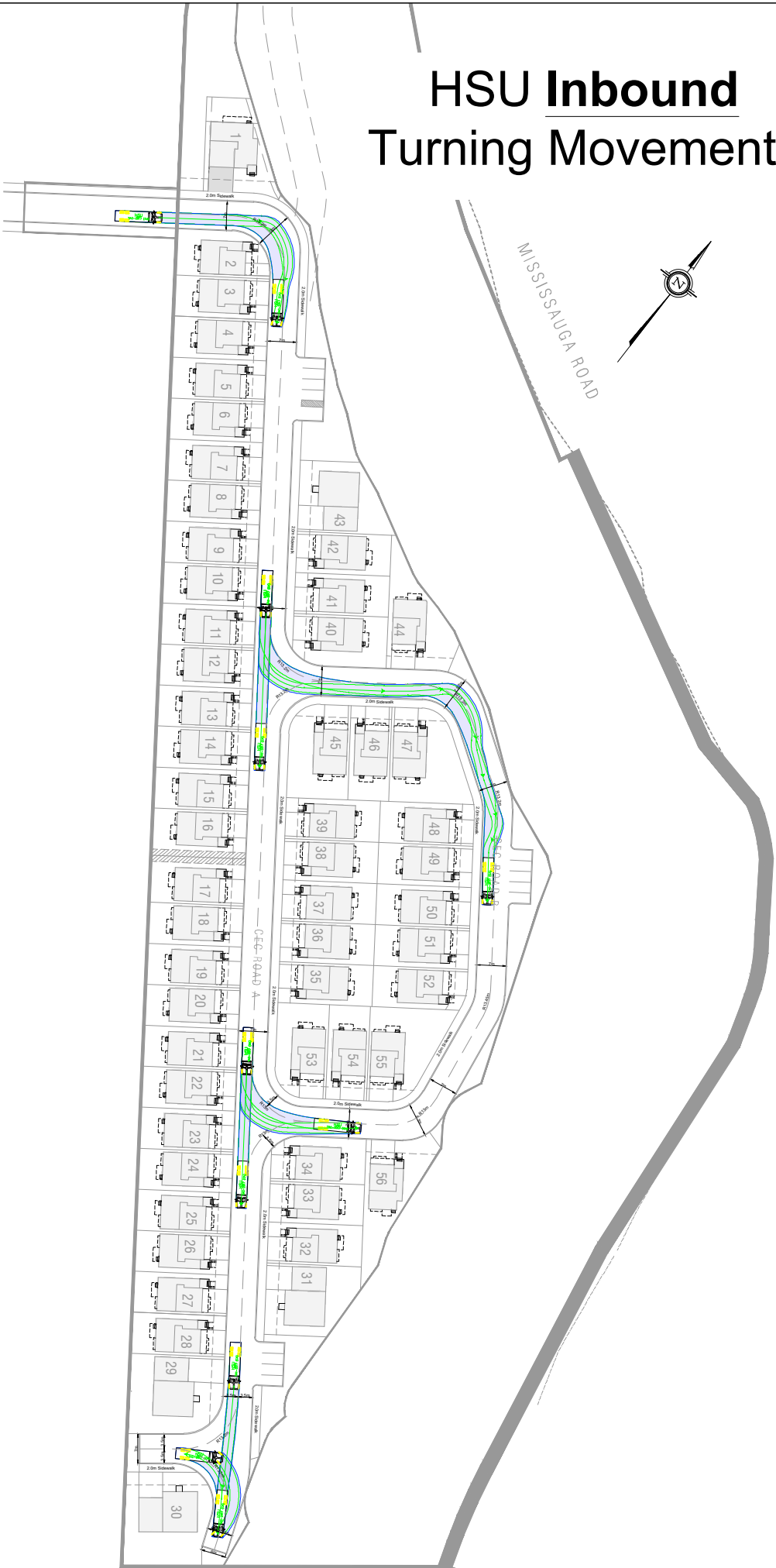
SITE: 1720 Sherwood Forrest Circle  
Mississauga

TITLE: Turning Movement Analysis  
Fire Turning Movements

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2024-05-03	AN	MC
PROJECT NO:	DRAWING NO:	REVISION:	
2023-078	001	05	

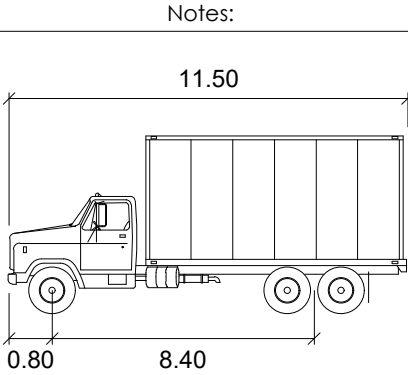
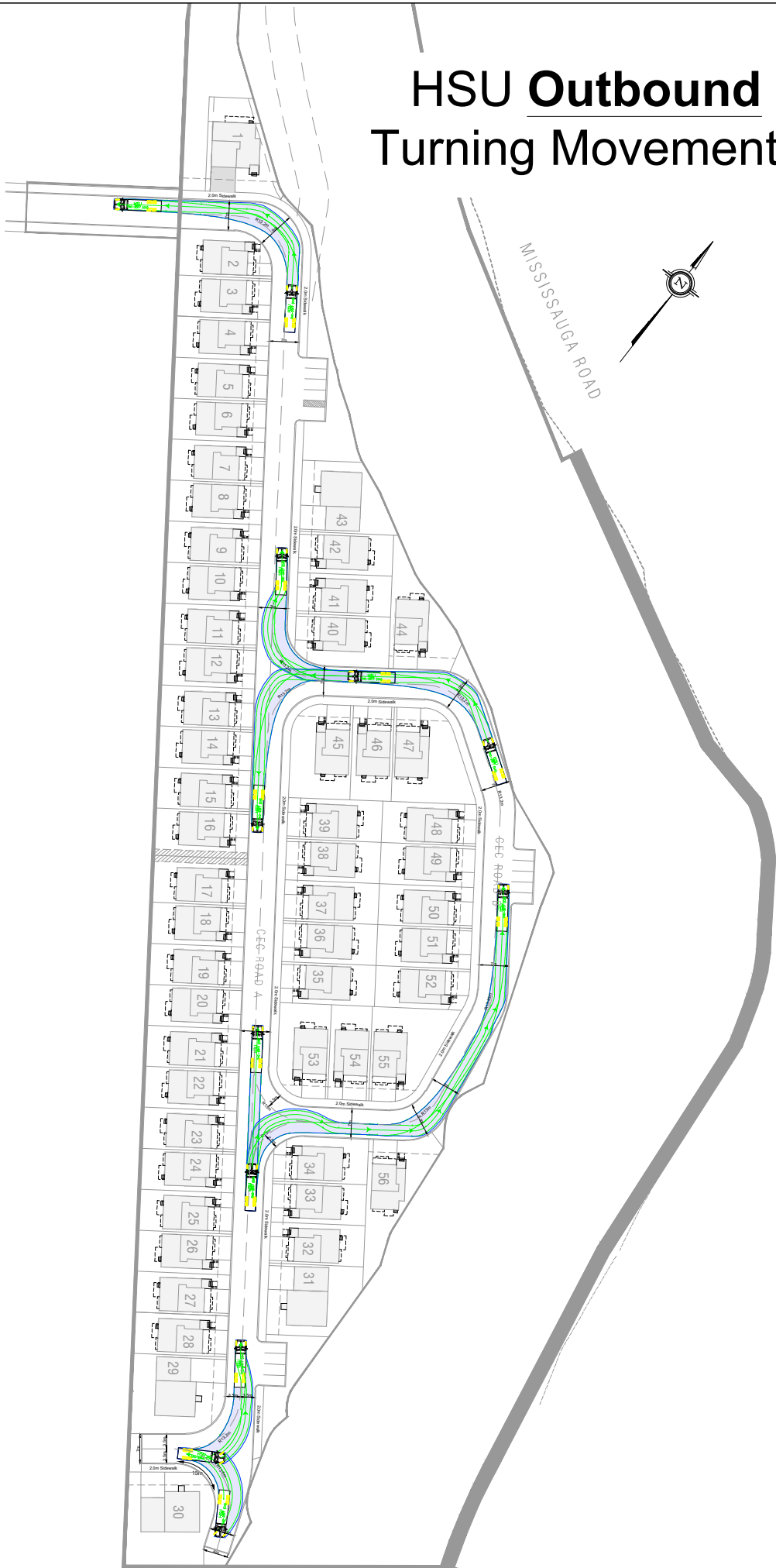
# HSU Inbound Turning Movements

SHERWOOD FOREST CIRCLE



# HSU Outbound Turning Movements

SHERWOOD FOREST CIRCLE



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



CGH Transportation  
628 Haines Road  
Newmarket, ON  
L3Y 6V5  
(905) 251-4070

CLIENT: Sherwood Forrest Limited Partnership

ARCHITECT:

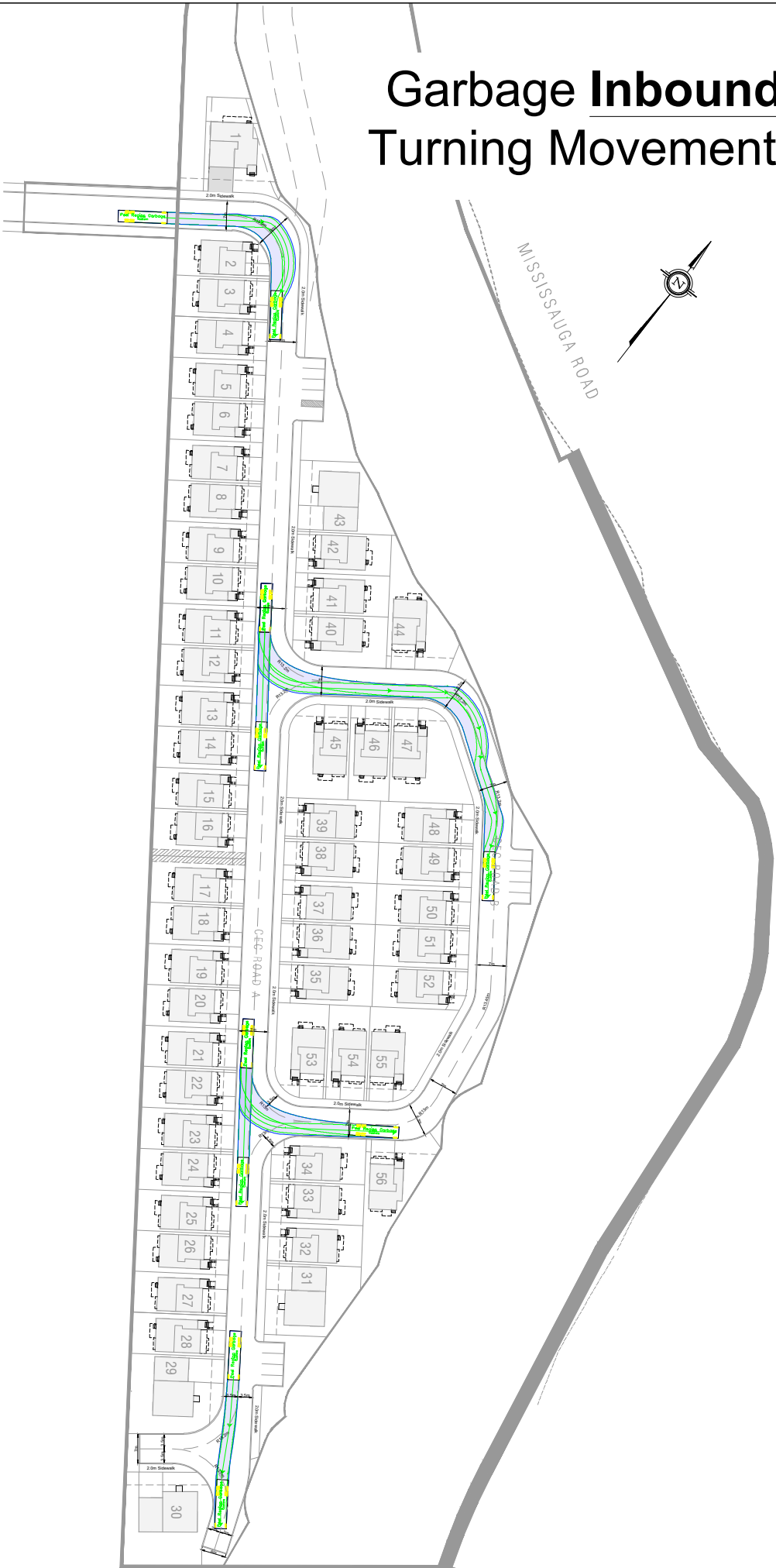
SITE: 1720 Sherwood Forrest Circle  
Mississauga

TITLE: Turning Movement Analysis  
Garbage Turning Movements

SCALE AT A3: NTS	DATE: 2024-05-03	DRAWN: AN	CHECKED: MC
PROJECT NO: 2023-078	DRAWING NO: 002	REVISION: 05	

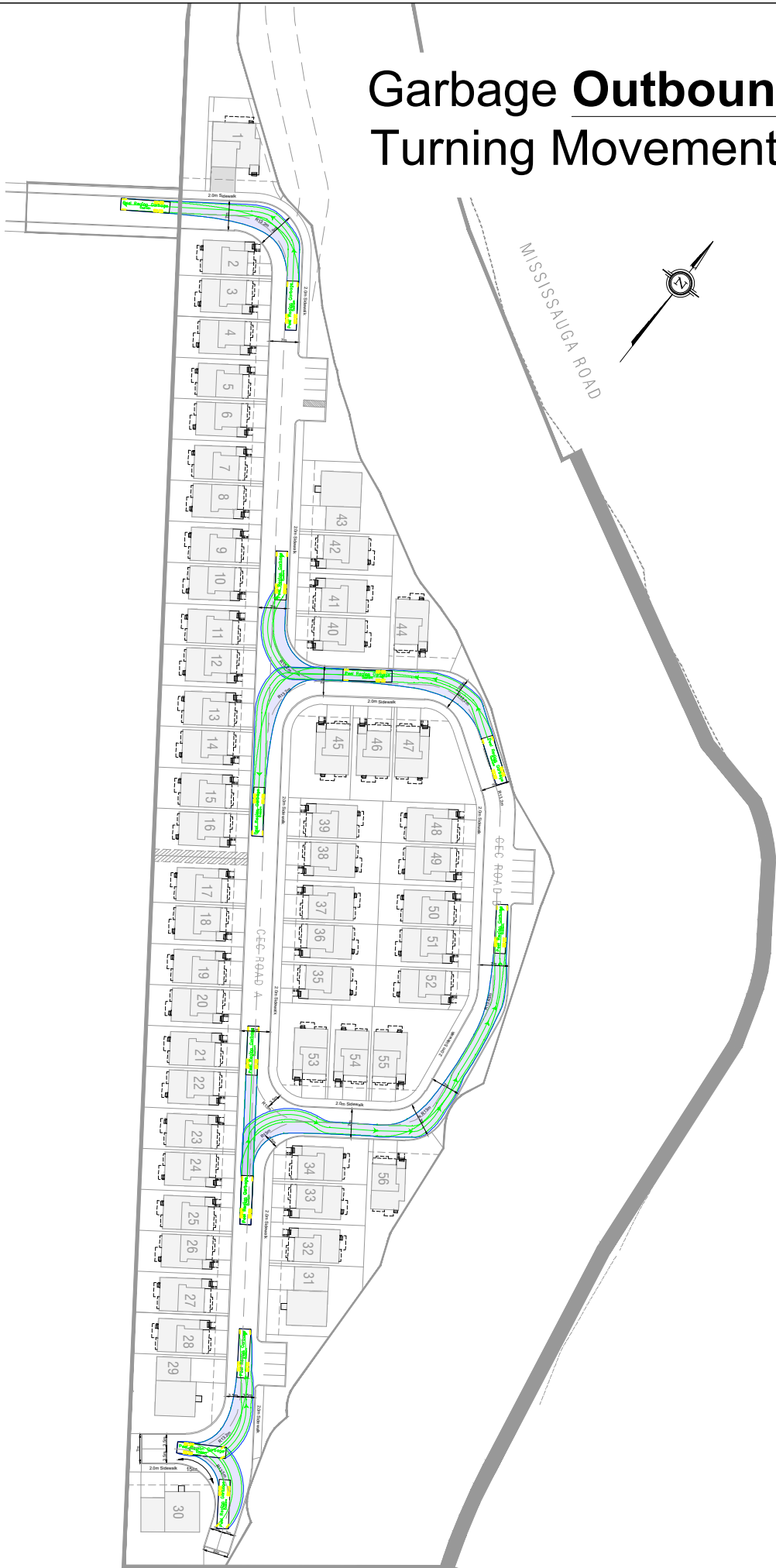
# Garbage Inbound Turning Movements

SHERWOOD FORREST CIRCLE

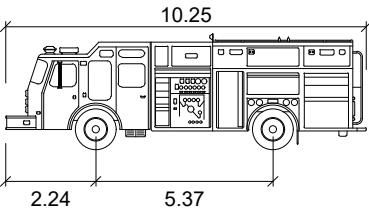


# Garbage Outbound Turning Movements

SHERWOOD FORREST CIRCLE



Notes:



Peel Pumper Fire Truck		Peel Pumper Fire Truck	units
Width	:	2.59	meters
Track	:	2.59	meters
Lock to Lock Time	:	6.0	seconds
Steering Angle	:	37.8	degrees

04	Issued for Review	AN	2024-05-03
REV:	DESCRIPTION:	BY:	DATE:
STATUS:			



CGH Transportation  
628 Haines Road  
Newmarket, ON  
L3Y 6V5  
(905) 251-4070

CLIENT: Sherwood Forrest Limited Partnership

ARCHITECT:

SITE: 1720 Sherwood Forrest Circle  
Mississauga

TITLE: Turning Movement Analysis  
Garbage Turning Movements

SCALE AT A3:	DATE:	DRAWN:	CHECKED:
NTS	2024-05-03	AN	MC
PROJECT NO:	DRAWING NO:	REVISION:	
2023-078	003	04	

# Appendix E

TDM and Pedestrian Circulation Checklist

# Appendix E

## Transportation Demand Management and Pedestrian Circulation Checklist

This checklist is designed to evaluate the incorporation of Transportation Demand Management (TDM) measures, including pedestrian circulation techniques, into development proposals. The template is modelled on the prototype Class 2: Medium Density/Moderate Congestion (TDM Moderate) checklist contained in *TDM Supportive Guidelines for Development Approvals* (ACT Canada, 2008).

The applicant must complete and return this checklist with their **Transportation Demand Management Plan** (TDMP) and/or **Pedestrian Circulation Plan** (PCP).

### Application Summary

Development Application No:

Date:

Applicant:

Staff:

### SCORE AND RATING:

### TDM SUPPORTIVE?

Yes

No

### Scorecard

Use the scorecard below to determine the TDM rating and supportiveness of the development proposal based on the final score calculated on page E-5. If the proposal does not satisfy the minimum threshold, review and enhance the TDM measures.

Final Score	Rating	TDM Supportive?
91% - 100%	***** (5 Star)	YES
81% - 90%	**** (4 Star)	
71% - 80%	*** (3 Star)	
61% - 70%	** (2 Star)	NO (Review and Enhance TDM Measures)
50% - 60%	* (1 Star)	
Less than 50%	(None)	



**CATEGORY A – Pedestrian Circulation**

In creating an environment that facilitates and supports pedestrian activity, the public realm needs to be accessible, safe, and comfortable to encourage movement on the street and in the surrounding area(s).

Features		Yes	No	N/A	Comments
A1	Development located within 800 m walking distance of residential (if employment) or employment (if residential) uses	X			
A2	Development located within 400 m walking distance of retail, restaurant, or other pedestrian-oriented uses or similar services provided on-site		X		
A3	At least one functional building entrance oriented towards public space (i.e., street, park, square)	X			
A4	At least one functional building entrance located close to on-site or adjacent street transit stop	X			
A5	Nearest functional building entrance located within 50 m of (and connected to) public street with sidewalk	X			
A6	Accessible on-site pedestrian routes provided and connected to surrounding network and transit	X			
A7	Continuous sidewalks (1.5 m min. width) provided along all on-site roads and both sides of adjacent public streets	X			
A8	No conflict points between pedestrians and other users (i.e., vehicles, cyclists)		X		
A9	Adequate and properly designed pedestrian crossings provided on-site	X			
A10	Off-site road works designed to maximize pedestrian safety and minimize pedestrian crossing distances (e.g., no right turn channelization)			X	No off-site road works are proposed as part of the proposed development.
A11	Amenities provided along pedestrian routes (i.e., benches, street furniture)	X			
A11	Shelters and benches provided at transit stops	X			
A12	Wayfinding provided to guide pedestrians	X			
A13	Lighting provided along pedestrian routes	X			
A14	Weather protection provided along pedestrian routes			X	This feature is more applicable to multi-story buildings where canopies may be provided.
A15	Vehicle parking areas located away from street and pedestrian routes			X	This feature is more applicable to developments that have large parking lots and front arterial and collector roads.
A16	Protected pedestrian routes provided through vehicle parking lots and linked to building(s)			X	This feature is more applicable to commercial developments with large parking lots.

**CATEGORY A – Pedestrian Circulation**

In creating an environment that facilitates and supports pedestrian activity, the public realm needs to be accessible, safe, and comfortable to encourage movement on the street and in the surrounding area(s).

Features		Yes	No	N/A	Comments
A17	Passenger pick-up and drop-off areas located to side or rear of buildings, downstream from major building entrance points, but no more than 30 m away			X	This measure is not applicable to a low-rise residential development.
A18	Loading areas located away from street and pedestrian routes			X	There is no centralized waste collection area at this site, however the waste collection turnaround area has been provided away from pedestrian routes.
<b>Sub-Total</b>		11	2	6	

**CATEGORY B – Cycling Orientation**

In creating an environment that facilitates and supports cycling activity, the public realm needs to be accessible, safe, and comfortable to encourage movement on the street and in the surrounding area(s).

Features		Yes	No	N/A	Comments
B1	On-site cycling routes provided and connected to surrounding network	X			Deer Wold and King Forrest Drive will connect residents to the future bike lanes along Dundas Street.
B2	Class A (long-term) and Class B (short-term) bicycle parking spaces provided per City of Mississauga Zoning By-law (reproduced at end of this checklist for reference)	X			Residents and visitors may park their bicycles within each unit's yard / garage.
B3	Bicycle repair station provided at-grade or within underground structure close to long-term bicycle parking			X	This feature is more applicable to employment, commercial or high-rise residential land uses where bicycle repair station can be provided in close proximity to centralized bike parking.
B4	Wayfinding provided to guide cyclists	X			
B5	Other amenities provided for cyclists (e.g., showers, change rooms)			X	This feature is more applicable to employment, commercial or high-rise residential land uses.
<b>Sub-Total</b>		3	0	2	

**CATEGORY C – Transit Service**

The availability and proximity of convenient public transit service with direct pedestrian linkages to the building expands the range of viable travel options for employees, visitors, and residents.

<b>Features</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
C1	Development located within 800 m walking distance of a rapid transit station (existing or planned) or within 400 m of two or more public bus routes with minimum 15-minute headway service during peak commuter periods and every 30 minutes throughout the remainder of the day		X		
C2	Information about public transit routes, schedules, and fares provided in accessible and visible location on-site and in adjacent bus stops			X	This feature is more applicable to higher density developments with common entrances where transit map / schedule information can be displayed.
C3	Sufficient capacity available to accommodate transit riders generated by development	X			The proposed development is expected to generate negligible number of transit trips (a maximum of 4 trips per hour in peak direction)
<b>Sub-Total</b>		<b>1</b>	<b>1</b>	<b>1</b>	

**CATEGORY D – Motor Vehicle Parking**

The location and design of motor vehicle parking facilities can affect the character and cost of a development. Avoiding the oversupply of parking can also help reduce single occupant vehicle travel.

<b>Features</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
D1	No more than the minimum number of parking spaces required by the Zoning By-law provided	X			
D2	Priority parking equivalent to 10% of employee spaces provided for carpooling/vanpooling			X	This feature is more applicable to employment land uses.
D3	Priority parking equivalent to 3% of full-time building occupants provided for auto share and hybrid/alternative fuel vehicles			X	This feature is more applicable to high-rise residential developments.
D4	Priority parking equivalent to 1% of the parking stalls provided for mopeds, motorcycles, and minicars			X	This feature is more applicable to high-rise residential developments.
D5	Parking shared for different uses on-site and/or adjoining properties			X	This feature is more applicable to non-homogeneous land uses.
D6	50% of parking located underground or in structured parking			X	This feature is more applicable to high-rise developments.
<b>Sub-Total</b>		<b>1</b>	<b>0</b>	<b>5</b>	

**CATEGORY E – Incentives**

Building owners and tenants can offer occupants Transportation Demand Management incentives that help reduce single occupant vehicle travel.

<b>Features</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
E1	TDM Plan prepared that targets a 10% reduction in peak hour trips using forecast trip generation with status quo travel characteristics		X		
E2	Building owner/tenant will provide a ride matching service for car/vanpooling			X	This feature is more applicable to employment land uses.
E3	Building owner/tenant will provide emergency ride home options			X	This feature is more applicable to employment land uses.
E4	Building owner/tenant will provide subsidized transit passes for all occupants for a period of at least two years		X		
E5	Building owner/tenant will charge for parking as an unbundled cost to occupants			X	Not applicable to single family homes where parking is provided within each unit.
E6	Building owner/tenant will reduce cost for users of car/van pool, bicycle, moped/motorcycle/minicar spaces			X	Not applicable to single family homes where parking is provided within each unit
E7	Building owner/tenant will become a member of a local TMA and appoint a TDM Coordinator to oversee and coordinate promotional opportunities and events on site	X			
<b>Sub-Total</b>		<b>1</b>	<b>2</b>	<b>4</b>	

**SCORING SUMMARY**

Count the number of applicable features for each category (items not assigned "N/A") and enter under the column "Applicable" in the table below.

Assign 1 point to each "Yes" answer, except for Category A (Pedestrian Circulation) where each "Yes" answer is worth 1/2 a point and Category C (Transit Service) where each "Yes" answer is worth 2 points. Award 0 points for a "No" answer. Tally the points for each category under the column "Points" in the table below.

Calculate "Final Score" as a percentage by dividing total "Points" by the total "Applicable" and enter in the table below and in the "SCORE AND RATING" field on page E-1.

<b>Category</b>	<b>Possible</b>	<b>Applicable</b>	<b>Points</b>	<b>Comments</b>
A – Pedestrian Circulation	9 (18/2)	6.5	5.5	
B – Cyclist Orientation	5	3	3	
C – Transit Service	6 (3x2)	4	2	
D – Motor Vehicle Parking	6	1	1	
E – Incentives	7	3	1	
<b>TOTAL</b>	<b>33</b>	<b>17.5</b>	<b>12.5</b>	
<b>Score% (Points/Applicable)</b>			<b>71%</b>	

# Appendix F

## Pedestrian-Oriented Site Design Prompt List

The following list is a convenient reminder for site designers and reviewers of important considerations in designing pedestrian-oriented development. The template is based on guidance contained in *Promoting Sustainable Transportation Through Site Design* (Institute of Transportation Engineers, 2010).

Site Planning	
<input type="checkbox"/>	Locate highest density land uses closest to activity nodes such as transit stops and intersections
<input type="checkbox"/>	Use retail, restaurant, and other pedestrian-oriented land uses to animate street frontage
Building Placement	
<input type="checkbox"/>	Locate buildings close to the street but allow for pedestrian activities along street frontage
Building Entrances	
<input type="checkbox"/>	Orient functional building entrances towards public spaces (i.e., street, park, square)
<input type="checkbox"/>	Locate functional building entrances close to public streets with direct pedestrian access
<input type="checkbox"/>	Locate functional building entrances close to on-site or adjacent street transit stops
<input type="checkbox"/>	Locate short-term bicycle parking close to functional building entrances
<input type="checkbox"/>	Locate preferential parking for sustainable modes (i.e., carshare, carpool) close to functional building entrances
<input type="checkbox"/>	Avoid vehicle paths crossing major building entrance points
Pedestrian Routes	
<input type="checkbox"/>	Provide safe, direct, continuous, and clearly defined pedestrian routes along desire lines. Routes should be accessible, wide, and unobstructed.
<input type="checkbox"/>	Provide safe, direct, continuous, and clearly defined pedestrian routes to transit stops. Walking distances to stops should not exceed 800 m for rapid transit stations (existing or planned) or 400 m for public bus routes.
<input type="checkbox"/>	Connect on-site pedestrian routes with surrounding networks
<input type="checkbox"/>	Provide continuous sidewalks along all on-site roads and both sides of adjacent public streets
<input type="checkbox"/>	Minimize conflict points between pedestrians and other users (i.e., vehicles, cyclists)
Pedestrian Crossings	
<input type="checkbox"/>	Minimize block lengths where possible or provide midblock crosswalks if needed
<input type="checkbox"/>	Design intersections to provide safe pedestrian crossings
<input type="checkbox"/>	Provide properly signed crossings wherever a route crosses a road
<input type="checkbox"/>	Warn pedestrians of upcoming crossings through physical treatment and/or accessible signals
<input type="checkbox"/>	Design off-site road works to maximize pedestrian safety and minimize pedestrian crossing distances (e.g., no right-turn channelization)

Pedestrian Amenities	
<input type="checkbox"/>	Provide benches, street furniture, and other amenities along pedestrian routes
<input type="checkbox"/>	Provide wayfinding signs and other physical features to guide pedestrians
<input type="checkbox"/>	Provide safe, well-lit, and visible shelters and benches at transit stops
<input type="checkbox"/>	Provide lighting along pedestrian routes where possible
<input type="checkbox"/>	Provide weather protection along pedestrian routes where possible
Vehicle Parking Layout	
<input type="checkbox"/>	Locate off-street vehicle parking away from street, preferably behind buildings or underground
<input type="checkbox"/>	Separate vehicle access to parking lots from pedestrian access
<input type="checkbox"/>	Avoid vehicle access and egress controls to parking lots from blocking pedestrian routes
<input type="checkbox"/>	Minimize vehicle parking lot area and design to prevent speeding
<input type="checkbox"/>	Provide protected pedestrian routes through vehicle parking lots and link to buildings
Passenger Pick-up and Drop-off Areas	
<input type="checkbox"/>	Locate passenger pick-up and drop-off areas to side or rear of buildings, downstream from major building entrance points, but no more than 30 m away
Loading Areas	
<input type="checkbox"/>	Locate loading areas away from street, preferably behind buildings or underground
<input type="checkbox"/>	Avoid severing pedestrian routes with loading area access
Site Grading	
<input type="checkbox"/>	Maintain relatively level terrain along pedestrian routes
<input type="checkbox"/>	Provide ramps wherever stairs necessary
<input type="checkbox"/>	Design slopes along pedestrian routes to avoid ponding of slush and water