

10002936484 Ontario Inc.

Proposed Residential Development at 2155 Leanne Boulevard, City of Mississauga

Transportation Impact Study

April 17, 2026





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Transportation Impact Study

10002936484 Ontario Inc.

Project No.: CA0067763.1219

Date: April 17, 2026

WSP

150 Commerce Valley Drive West

Thornhill, Ontario

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wsp.com



April 17, 2026

Waleed Nawaz
Senior Development Manager
10002936484 Ontario Inc.
105 Six Point Road
Etobicoke, ON M8Z 2X3

Subject: Proposed Residential Development at 2155 Leanne Boulevard, Mississauga
Transportation Impact Study

Dear Mr. Nawaz:

WSP Canada Inc. (WSP) is pleased to submit this Transportation Impact Study (TIS) for the proposed development located at 2155 Erin Mills Parkway in the City of Mississauga.

We have undertaken intersection capacity analyses of the study area. The proposed development is expected to generate 122 and 145 two-way vehicular trips during the weekday morning and afternoon peak hours, respectively. The traffic operations under future total conditions are very similar to those under background conditions, and the projected future total analysis results are deemed acceptable from an intersection capacity perspective. There are no physical roadway improvements required, and signal timing optimization has been recommended due to background traffic growth.

The proposed site plan provided to WSP on March 30, 2026 and design vehicle simulations have been reviewed in accordance with the applicable standards. Recommendations made as part of the review are detailed in this report. It is our understanding that the outstanding recommendations will be addressed at the SPA stage.

The proposed townhouse residential parking supply complies with Zoning By-law 0225-2007, while the proposed townhouse visitor and apartment parking rates are below By-law standards. Based on the site's transportation context, approved precedents in Mississauga, and the proposed TDM measures, the parking supply is considered appropriate. Further justification and a site-specific TDM plan are provided in this study.

We thank you for the opportunity to undertake this study. Please contact us if you have any questions or comments.

Sincerely,

A handwritten signature in blue ink that reads 'David Lukezic'.

David Lukezic, M.Eng., LEL, RPP
Senior Project Manager

SIGNATURE

Prepared by



Kian Azari, P.Eng
Transportation Engineer

Approved¹ by



David Lukezic, M.Eng., LEL, RPP
Senior Project Manager

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CONTRIBUTORS

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Technical Review & Quality Control

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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 Town of Innisfil this 17th day of April, 2026
(City)

Name: David Lukezic
Professional Title: Senior Project Manager
Signature: 

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1 Introduction

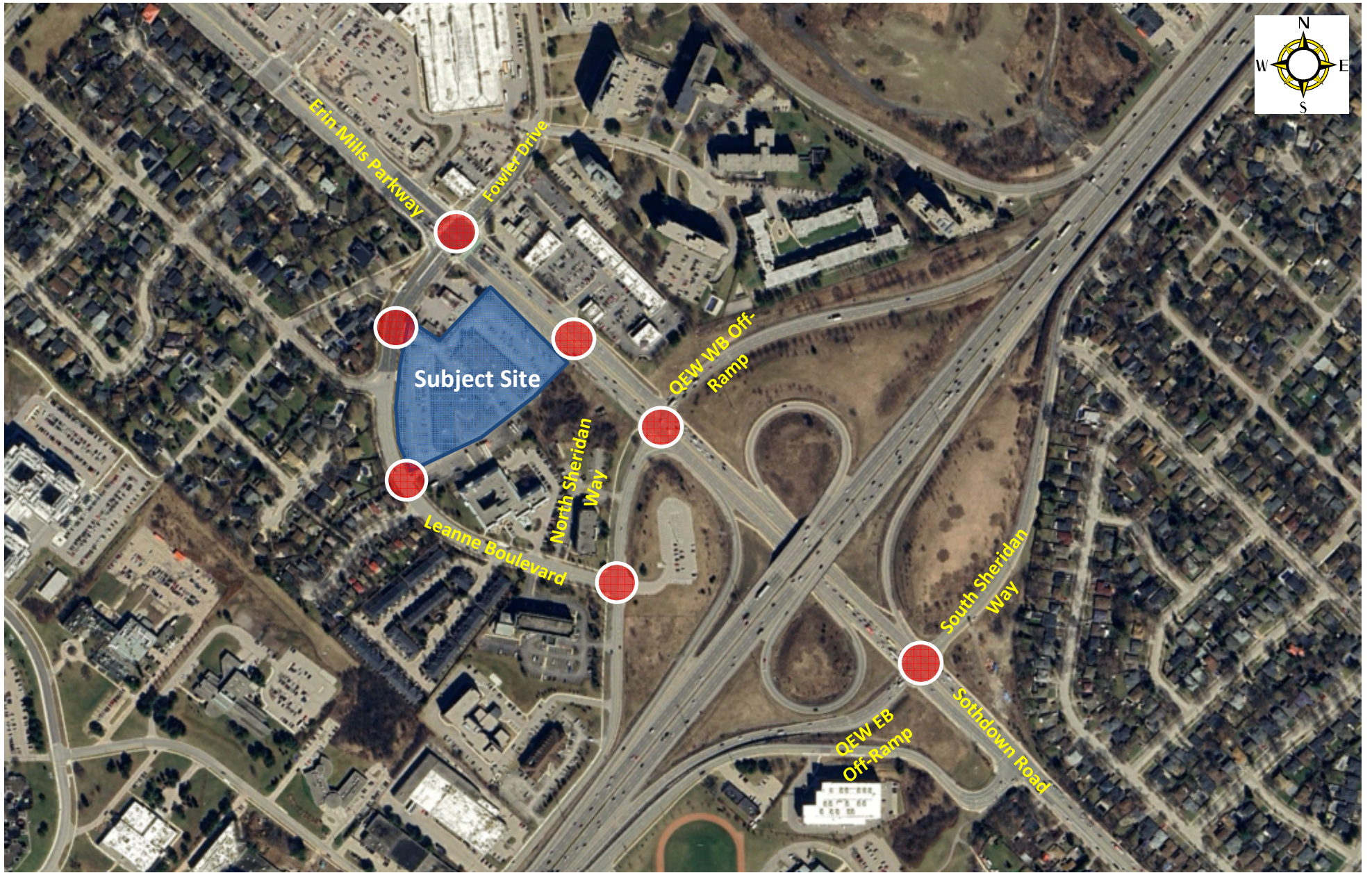
WSP Canada Inc. (WSP) was retained by 10002936484 Ontario Inc. to prepare a Transportation Impact Study (TIS) in support of the Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBA) for the proposed residential development located at 2155 Leanne Boulevard in the City of Mississauga. The site location and study are shown in **Figure 1-1**.

The development proposal involves redeveloping the site's existing land uses. The site currently includes a commercial building occupied by several tenants (i.e., Swiss Chalet restaurant, dental office, foot clinic, hair salon, etc.) along with surface parking areas. The site is currently accessed by two full moves driveways along Leanne Boulevard, as well as a right-in-only access from Erin Mills Parkway serving the existing development.

The proposed development consists of an 8-storey mid-rise building with 203 residential units and 164 four-story back-to-back townhouse units organized across multiple blocks. Additionally, a total of 602 parking spaces is proposed for the proposed development. The subject site will be served by six accesses consisting of five accesses along Leanne Boulevard and one right-in/right-out access on Erin Mills Parkway. The proposed site plan is shown in **Figure 1-2**.

A Terms of Reference (ToR) was circulated to the City of Mississauga, Region of Peel, and the Ministry of Transportation of Ontario (MTO) transportation staff prior to commencing the TIS, and feedback was received from the City and MTO. The ToR and responses from the City and MTO are provided in **Appendix A**.

This TIS has been prepared to align with the City of Mississauga TIS Guideline, 2022, Peel Region TIS Guidelines, 2017 and Ministry of Transportation Ontario (MTO) TIS Guidelines, 2023. The study approach and findings are documented herein.



Legend

● Study Intersection

Figure 1-1
Site Location



Date Site Plan Received: 2026-03-30

Scale: 1:800



Figure 1-2
Site Plan
2155 Leanne Boulevard TIS

2 Existing Transportation Conditions

This section of the assessment describes the existing road network and traffic conditions within the study area.

2.1 Boundary Roadways

The following roadways make up the boundary road network that surrounds the subject site:

- **Erin Mills Parkway** is a north-south arterial road under the jurisdiction of the Region of Peel, located east of the site. Within the study area, Erin Mills Parkway has a six-lane cross-section with three through lanes in each direction and a concrete centre median and has auxiliary turning lanes and/or channelized right-turn lanes at its intersections with other study roadways. This roadway has a posted speed limit of 70 km/h with a multi-use path (MUP) on one side and sidewalks on the other side. It transitions into Southdown Road south of Queen Elizabeth Way (QEW).
- **Southdown Road** is a north-south arterial road under the City of Mississauga’s jurisdiction, which transitions into Erin Mills Parkway north of QEW. Within the study area, Southdown has a six-lane cross-section with three lanes in each direction and a concrete centre median and has auxiliary turning lanes at its intersection with the QEW westbound off-ramp and South Sheridan Way. This roadway has a posted speed limit of 60 km/h with a MUP on the west side and sidewalks on the east side.
- **QEW On/Off Ramps** in the study area connect Erin Mills Parkway and Southdown Road to the east-west provincial highway QEW (Interchange No. 126). Both on-ramps have one lane. The off-ramp intersections on Erin Mills Parkway and Southdown Road are signalized. The westbound and eastbound off-ramps have three lanes – a left-turn lane, a shared through-and-left lane, and a right-turn lane.
- **Leanne Boulevard** is a U-shaped major collector road under the City of Mississauga’s jurisdiction, which becomes Fowler Drive east of Erin Mills Parkway. Within the study area, Leanne Boulevard has a four-lane cross-section with two lanes in each direction and has an auxiliary left-turn and right-turn lane at its intersection with Erin Mills Parkway. This roadway has a posted speed limit of 50 km/h with sidewalks on both sides.
- **Fowler Drive** is a U-shaped major collector road under the City of Mississauga’s jurisdiction that becomes Leanne Boulevard west of Erin Mills Parkway. Fowler Drive has a two-lane cross-section with one lane in each direction and auxiliary left and right-turn lanes at its intersection with Erin Mills Parkway. This roadway has a posted speed limit of 40 km/h, sidewalks on both sides, and bicycle tracks from Erin Mills Parkway to Roche Court.
- **North Sheridan Way** is an east-west major collector road under the City of Mississauga’s jurisdiction that has two segments. Its west segment extends from Winston Churchill Boulevard to Erin Mills Parkway, and the east segment extends from Fowler Drive to Mississauga Road. The roadway has a two-lane cross-section with one lane in each direction. This roadway has a posted speed limit of 50 km/h and 60 km/h for its west and east segments, respectively. Sidewalks are provided on the north side of North Sheridan Way.

- **South Sheridan Way** is an east-west collector road under the City of Mississauga’s jurisdiction that has two segments separated by Southdown Road. The east segment of this roadway is within the study area, which has a two-lane cross-section with one lane in each direction and has an auxiliary left-turn lane at its intersection with Southdown Road. This segment has a posted speed limit of 60 km/h with sidewalks on the south side.

Based on the submitted ToR and the feedback received, the following existing intersections have been evaluated in this study:

- Erin Mills Parkway at Leanne Boulevard / Fowler Drive (signalized);
- Erin Mills Parkway at Site Access (unsignalized);
- Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp (signalized);
- Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp (signalized);
- Leanne Boulevard at North Site Access (unsignalized);
- Leanne Boulevard at South Site Access (unsignalized); and
- Leanne Boulevard at North Sheridan Way (unsignalized).

The existing lane configurations of the study road network are illustrated in **Figure 2-1**.

2.2 Existing Transit Service

The subject site is directly serviced by MiWay and can access GO Transit services via bus transfer or cycling. The existing transit network within the study area is described below and the local routes are illustrated in **Figure 2-2**.

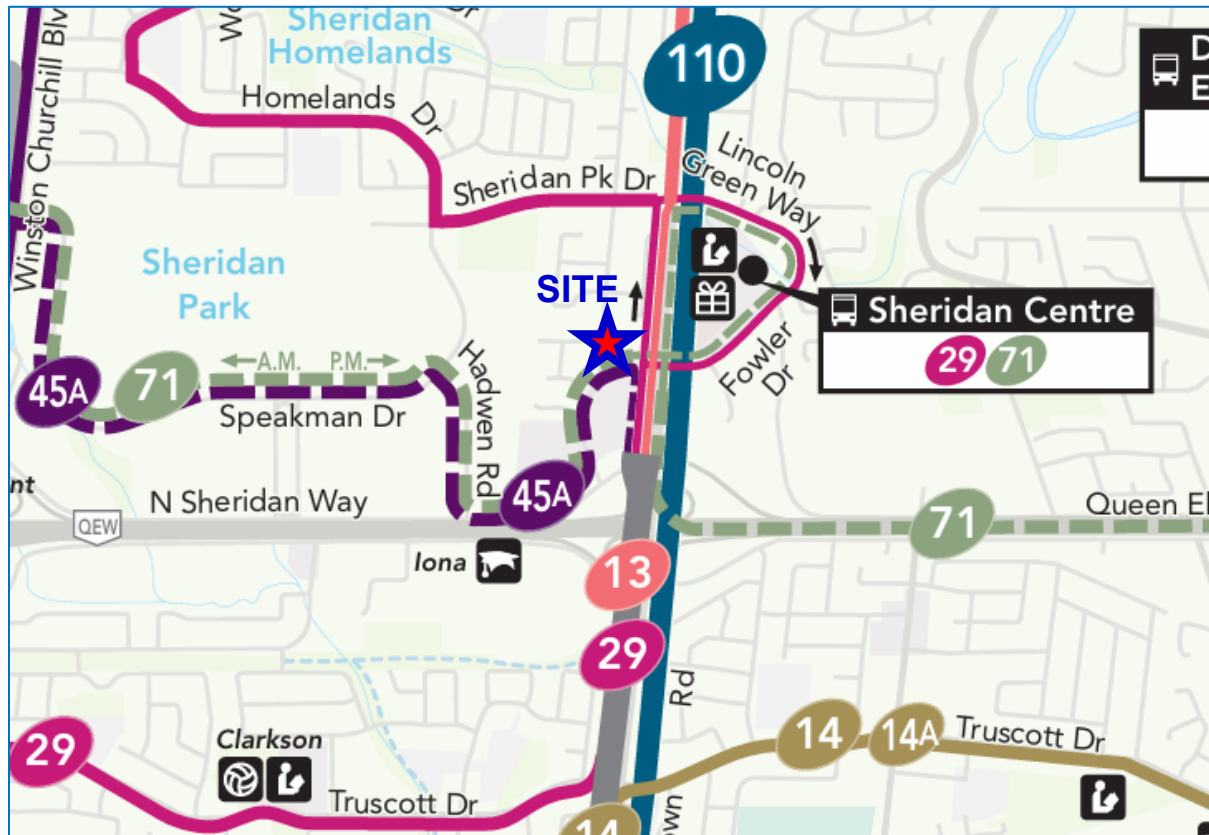


Figure 2-2 Existing Transit Network

Source: MiWay System Map dated February 2026. Retrieved April 2026

MiWay

- **Route 13 (Glen Erin)** operates all day, every day and provides service between Clarkson GO Station and Meadowvale Town Centre, generally in a north-south direction. Several stops for this route are located on Erin Mills Parkway, which is immediately adjacent to the site. The headways of Route 13 during the weekday morning and afternoon peak periods range from 10 to 24 minutes.
- **Route 29 (Park Royal)** operates all day, every day and provides service between Clarkson GO Station and Erin Mills Station, generally in a north-south direction. Several stops for this route are located on Erin Mills Parkway, which is immediately adjacent to the site. The headways of Route 29 during the weekday morning and afternoon peak periods range from 37 to 40 minutes.

- **Route 45A (Winston Churchill)** operates on weekdays during rush hours and provides service between Clarkson GO Station and Meadowvale Town Centre. Stops for this route are located on Leanne Boulevard, directly adjacent to the site. The headways of Route 45A during the weekday morning and afternoon peak periods range from 15 to 20 minutes.
- **Route 71 (Sheridan)** operates on weekdays during rush hours and provides service between Kipling Station in Toronto and the area of Plymouth Drive and Winston Churchill Boulevard in Mississauga, generally in an east-west direction. This route travels westbound from Kipling Station during the weekday morning peak period and eastbound towards Kipling Station during the weekday afternoon peak period. The headway of Route 71 is 30 minutes during the morning peak and afternoon peak periods.
- **Route 110 (University Express)** operates all day, every day and on weekends and provides service between Clarkson GO Station and City Centre Transit Terminal, passing through the University of Toronto Mississauga campus. Stops for this route closest to the site are located at the intersection of Erin Mills Parkway and Leanne Boulevard/Fowler Drive. The headway of Route 110 is 23 minutes during both the morning and afternoon peak periods.

GO Transit

Clarkson GO is the closest GO Station to Sheridan Centre at approximately 2.2 kilometres from the site. As described above, several MiWay bus routes have stops at Sheridan Centre and Clarkson GO Station, namely Routes 13, 45A, 71, and 110. For example, transit passengers from the site can arrive at Clarkson GO Station within 10 to 14 minutes via a combination of walking and local bus or within 10 minutes via cycling (per Google Maps).

Lakeshore West GO Line services are available at Clarkson GO Station. Lakeshore West GO Line operates all day, every day between Union Station in Toronto and West Harbour GO Station in Hamilton and provides service up to Niagara Falls GO Station in Niagara Falls during specific time periods. The headways of Lakeshore West GO Line during the weekday morning and afternoon peak periods range from 15 to 30 minutes.

2.3 Active Transportation Facilities

The area surrounding the subject site has well-developed pedestrian infrastructure. Most study roadways have pedestrian facilities on both sides, either in the form of sidewalks on both sides or MUPs on one side and sidewalks on the other. The only exceptions are North and South Sheridan Way, where sidewalks are only provided on one side of the road.

In terms of cycling facilities, as mentioned above, MUPs are provided on one side of Erin Mills Parkway. In addition, on-street bike lanes are provided in both directions on Fifth Line, which intersects Leanne Boulevard just north-west of the site. A multi-use path is also provided along Sheridan Park Drive, which intersects Erin Mills Parkway north of the site.

The existing cycling network in the vicinity of the subject site is illustrated in **Figure 2-3**.

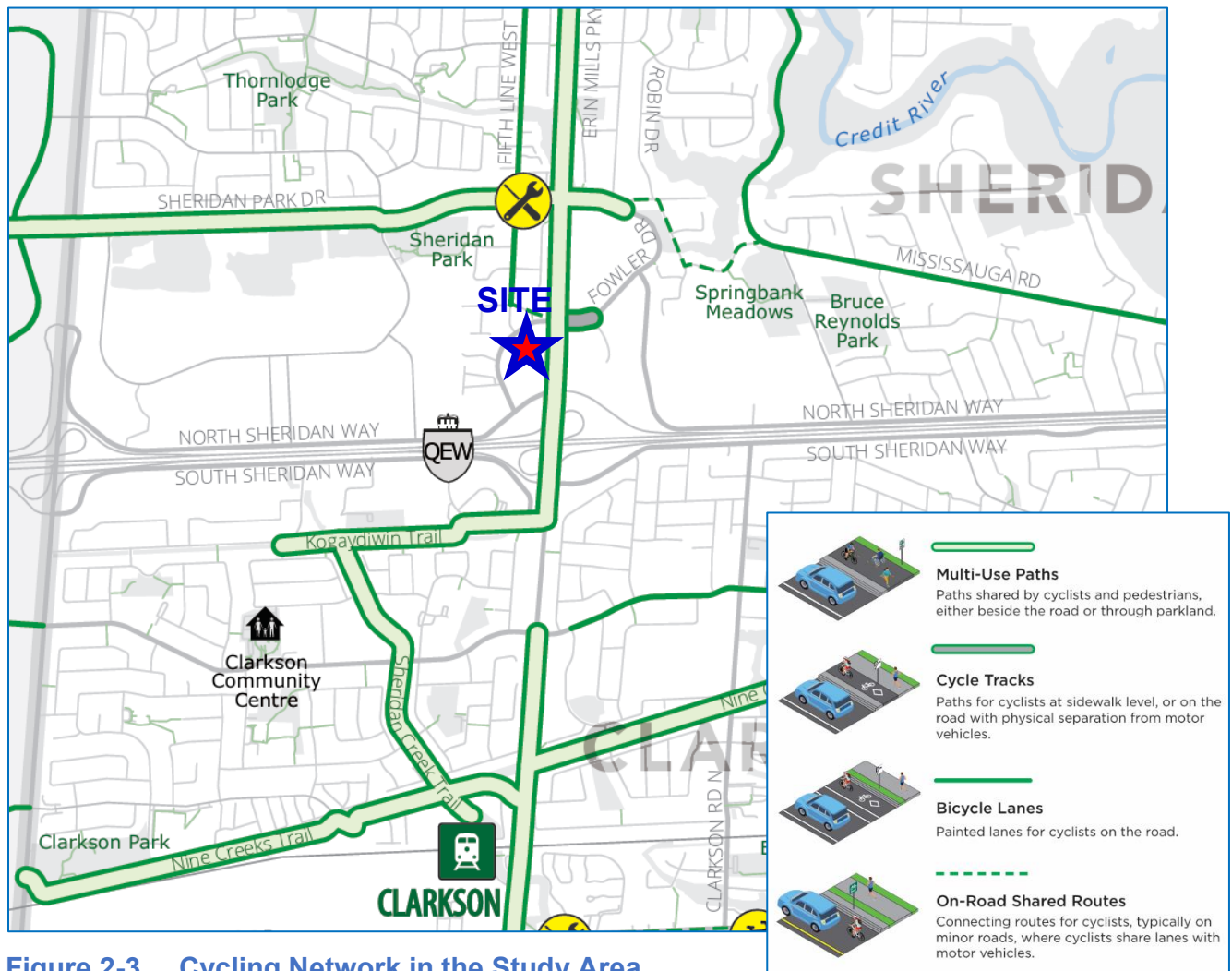


Figure 2-3 Cycling Network in the Study Area

Source: Mississauga Cycling Map dated 2025. Retrieved April 2026.

2.4 Traffic Data

WSP commissioned a third-party traffic collection firm (Horizon Data Services Ltd.) to collect existing turning movement counts (TMCs) at the study intersections during the weekday a.m. (7:00 to 10:00 a.m.) and p.m. (4:00 to 7:00 p.m.) peak periods on March 24, 2026. Additionally, traffic counts for the two MTO ramp intersections were obtained from the MTO, with data collected on August 28, 2024.

Table 2-1 summarizes the TMCs collected for this study, as well as the source and date of the counts. Details of the existing TMCs are provided in **Appendix B**.

Table 2-1 Existing Traffic Data Information

Intersection	Date of Count	Source
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	August 28, 2024	MTO
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp		
Erin Mills Parkway at Leanne Boulevard / Fowler Drive	March 24, 2026	Horizon Data Services Ltd.
Leanne Boulevard at North Sheridan Way		
Erin Mills Parkway at Site Access		
Leanne Boulevard at North Site Access		
Leanne Boulevard at South Site Access		

Given that the traffic counts at the MTO ramp intersections were collected in 2024, turning movement counts were grown using appropriate growth rates (as discussed in Section 3.3) to represent existing 2026 traffic conditions.

It should be noted that the MTO traffic counts are from August, which is not typical. These counts were compared to 2023 TMC collected at the same two intersections on February 2, 2023. The comparison shows that the total intersection volumes and order of magnitude volumes for individual movements are similar. The comparison with the 2023 TMC is provided in **Appendix B**.

The adjusted existing weekday a.m. and p.m. peak hour volumes at the study intersections are illustrated in **Figure 2-4**.

The signal timing plans (STPs) for the signalized study intersections were provided by the City of Mississauga. All of the TMCs and signal timing plans used are documented in **Appendix B**.

2.5 Existing Traffic Operations

2.5.1 Methodology and Synchro Parameters

Methodology

The operations of study intersections were analyzed using the Synchro 12 traffic analysis software, which incorporates the methodologies outlined in the Highway Capacity Manual (HCM), Transportation Research Board, 2000 and 2010. For this study, all reported results are based on the HCM 2000 methodologies as per the Region of Peel TIS requirements, unless otherwise noted. Intersection capacity analysis provides an indication of traffic operations based on calculations of volume-to-capacity ratio (v/c) and delays for individual movements at an intersection. Level of Service (LOS) denoted by the letters 'A' through 'D' represents satisfactory traffic operations. LOS denoted by the letters 'E' and 'F' represents congested traffic conditions. The Level of Service definitions for signalized and unsignalized intersections are included in **Appendix C**.

Synchro Input Parameters

The Synchro input parameters used in the analysis were established in accordance with the applicable guidelines from the City of Mississauga, Region of Peel, and MTO. The key Synchro input parameters are listed below:

- Existing vehicle turning movement counts were calculated based on the methodologies documented in **Section 2.4**. Heavy vehicle percentages, pedestrian and cyclist volumes were based on the respective traffic surveys;
- Bus blockages were incorporated based on available scheduling information from the MiWay website;
- An observed peak hour factor (PHF) was applied to all movements based on overall intersection volumes since they better reflect the traffic peaking patterns;
- A lane width of 3.7 metres was used for all through lanes, and a width of 3.5 metres was used for all auxiliary turn lanes per Peel Region Guidelines for Using Synchro;
- A default ideal saturation flow rate of 1,900 vehicles per hour per lane was applied to all movements at the study intersections,
- The lost time adjustment default of zero was applied at the signalized intersections during the weekday a.m. and p.m. peak hours; and
- Latest signal timing plans were acquired from the City (see **Appendix B**).

All of the above parameters are carried forward for the future assessment to allow for “Apples to Apples” comparisons.

2.5.2 Existing Intersection Capacity Analysis

Traffic operations were analyzed at the study intersections to determine the existing LOS during the weekday a.m. and p.m. peak hours. The results of the intersection capacity analysis under existing conditions are summarized in **Table 2-2**. Detailed Synchro analysis worksheets are provided in **Appendix D**.

Table 2-2 Existing Intersection Capacity Analysis Results

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Signalized Intersections ¹				
Erin Mills Parkway at Leanne Boulevard / Fowler Drive	B (15.5)	-	B (15.7)	WB-L (0.86)
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	D (37.8)	WB-L (0.82)	C (33.6)	WB-L (0.76) WB-LT (0.75)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	C (30.9)	WB-R (0.85)	E (61.7)	EB-L (0.96) EB-LT (0.93) NB-T (0.93) SB-T (0.89)
Unsignalized Intersections ²				
Erin Mills Parkway at Site Access	A (0.0)	SB-T (0.39) (A)	A (0.0)	NB-T (0.48) (A)
Leanne Boulevard at North Site Access	A (8.8)	NB-LR (0.00) (A)	B (10.6)	NB-LR (0.09) (B)
Leanne Boulevard at South Site Access	A (9.4)	WB-LT (0.00) (A)	B (10.4)	WB-LR (0.03) (B)
Leanne Boulevard at North Sheridan Way	D (32.4)	SB-L (0.23) (D)	F (62.4)	SB-L (0.32) (F)

¹ For signalized intersections, the LOS is based on the overall intersection delay. Critical v/c ratios are only listed for movements with values over 0.85 for a signalized intersection, or 0.75 for an intersection at highway ramps.

² For unsignalized intersections, the LOS is based on the delay associated with the highest delay. Critical movements are those with a LOS 'E' or worse.

As shown in **Table 2-2**, the signalized study intersections operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours under existing conditions, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which operates at LOS 'E' during the p.m. peak hour. Several critical movements with v/c ratios over 0.85 are identified at this intersection, including the northbound movement and the eastbound through and left-turn movements, which are operating near capacity during the p.m. peak hour. However, all of the movements are operating within capacity.

Under existing conditions, almost all of the movements at the unsignalized intersections perform with an LOS 'D' or better during both the a.m. and p.m. weekday peak hours. The only exception is the unsignalized intersection of Leanne Boulevard at North Sheridan Way, where the southbound left turn movement operates at LOS 'F' with a v/c ratio of 0.32 during the weekday p.m. peak hour. However, this movement is operating within capacity.

3 Future Background Conditions

3.1 Time Frame

The proposed development is expected to be completed within the next five years. As such, a horizon year of 2031 has been assumed to assess future traffic conditions. Additionally, in accordance with MTO’s General Guidelines for the preparation of Traffic Impact Studies, both a five-year and a ten-year post-buildout horizon have been evaluated in the study. Therefore, the analysis considers three horizon years: 2031, full buildout of the development; 2036, full buildout plus five years; and 2041, full buildout plus ten years.

The proposed horizon years were confirmed by the City and MTO staff through the ToR.

3.2 Planned Transportation Improvements

The *Mississauga Transit and Road Infrastructure Plan Technical Report*, dated April 2025, highlights a long-term plan to convert one lane along Erin Mills Parkway to a dedicated transit lane. Additionally, the plan also includes suggestions for road widening along Southdown Road to also incorporate dedicated transit lanes. Currently, there is no documentation indicating when the following improvements will be made and can be seen in **Figure 3-1**.

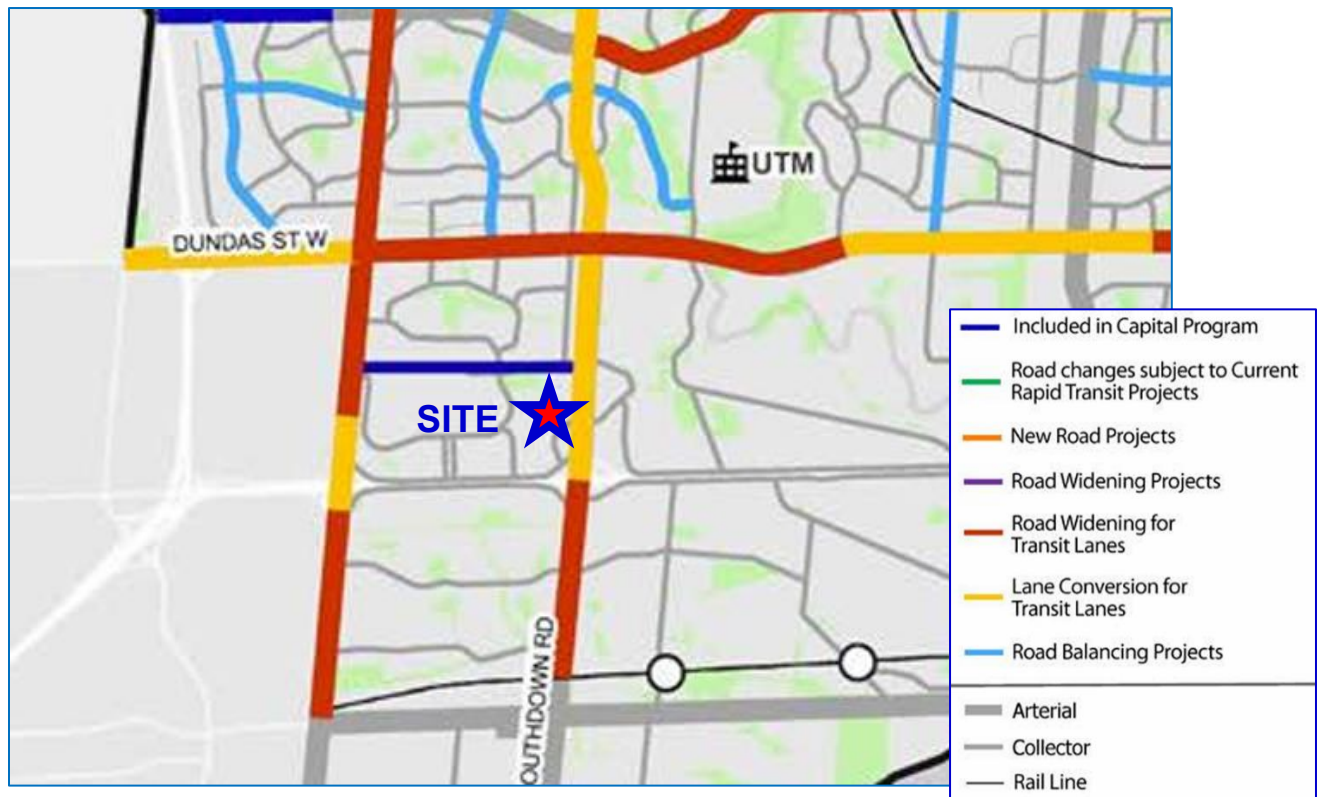


Figure 3-1 Planned Transportation Improvements in the Study Area

Source: *Mississauga Transit and Road Infrastructure Plan Technical Report* dated April 2025.
Retrieved April 2026.

According to the *Mississauga Cycling Master Plan*, dated 2018, a MUP is proposed along Erin Mills Parkway, along with proposed bicycle lanes on Fowler Drive. While specific implementation timelines were not identified in the Plan, a review of recent Google Street View imagery indicates that some of these active transportation improvements have since been implemented. In particular, cycle tracks are currently provided along Fowler Drive, and a MUP exists on one side of Erin Mills Parkway north of the Erin Mills Parkway at Leanne Boulevard/Fowler Drive intersection.

The *Mississauga Pedestrian Master Plan* (October 2021) identifies North Sheridan Way as a City of Mississauga Pedestrian Network Gap, as illustrated in **Figure 3-2**. As noted previously, sidewalks are currently provided on the north side of the roadway, and the City has outlined plans for future pedestrian improvements. Specifically, a boulevard multi-use trail is proposed along South Sheridan Way. At present, a sidewalk is available on the south side of the roadway. Beyond these improvements, no additional pedestrian enhancements are currently planned within the study area.

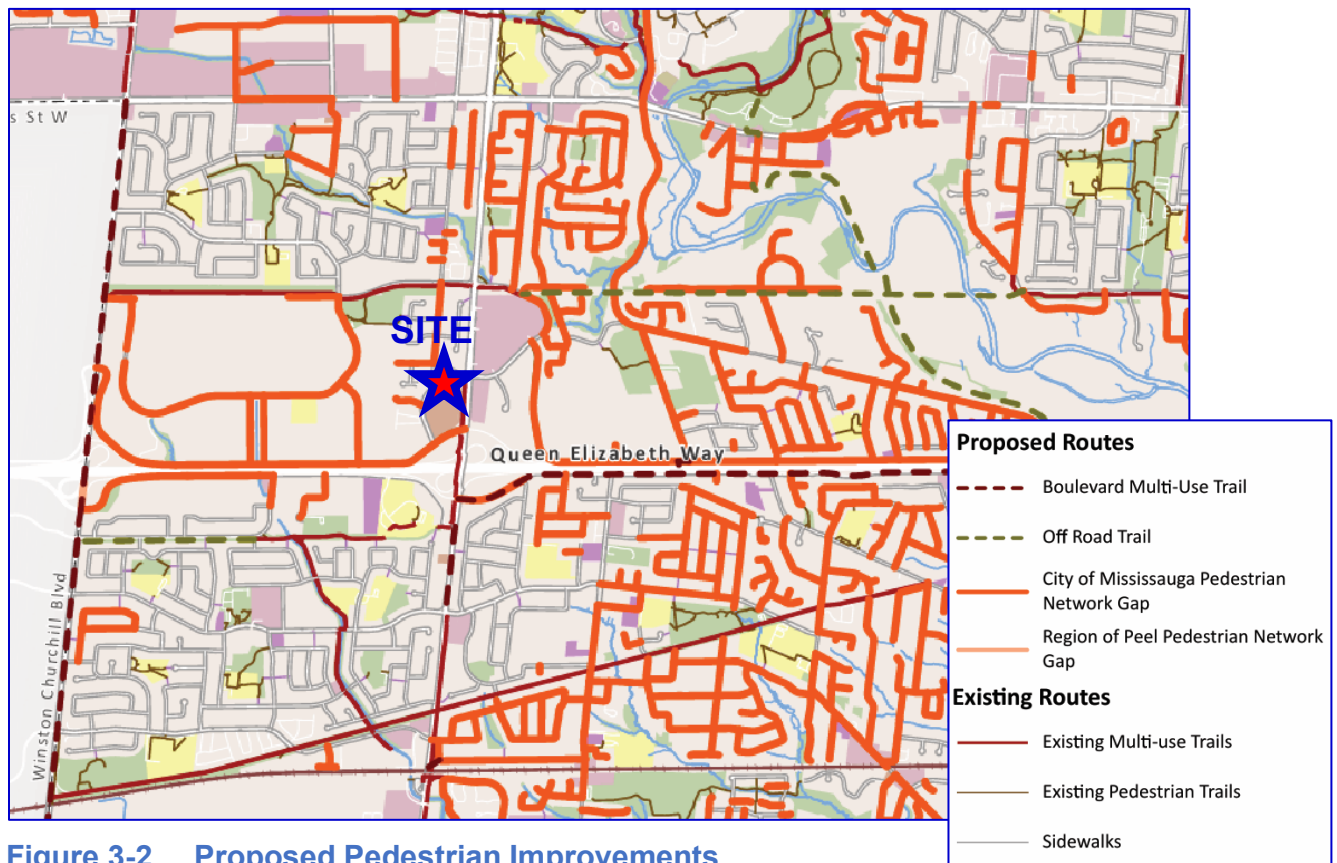


Figure 3-2 Proposed Pedestrian Improvements

Source: *Mississauga Pedestrian Master Plan* dated October 2021. Retrieved April 2026.

3.3 General Background Traffic Growth

Based on correspondence with the City of Mississauga, Peel Region, and MTO, growth rates were determined for the 5-year build-out period, as well as 10-year post-build-out horizon. The growth rates applied are shown in **Table 3-1**.

Table 3-1 Applied Traffic Growth Rates

Street Name	Direction	Present - 2031		2031 - 2041	
		A.M. Peak	P.M. Peak	A.M. Peak	P.M. Peak
North Sheridan Way	EB/WB	1.5%	1.5%	1.5%	1.0%
South Sheridan Way	EB/WB	1.5%	1.5%	1.5%	0.5%
Leanne Boulevard	NB/SB	1.5%	0.5%	0.5%	0.5%
Erin Mills Parkway/ Southdown Road	NB/SB	0.5%	0.5%	0.5%	0.5%
QEW Ramps	EB/WB	2.0%	2.0%	2.0%	2.0%

The above growth rates were applied to through movements along the study roadways, as well as to all turning movements at the QEW ramp intersections. The correspondence for the growth rate obtained is provided in **Appendix E**.

3.4 Background Development Traffic

Based on WSP’s review of the City’s Active Development Applications Map and confirmed in the TOR, two background developments in the vicinity of the study area have been included as part of this study and assumed to be built out by 2031. Details of these background developments are summarized in **Table 3-2**.

Table 3-2 Background Development Information

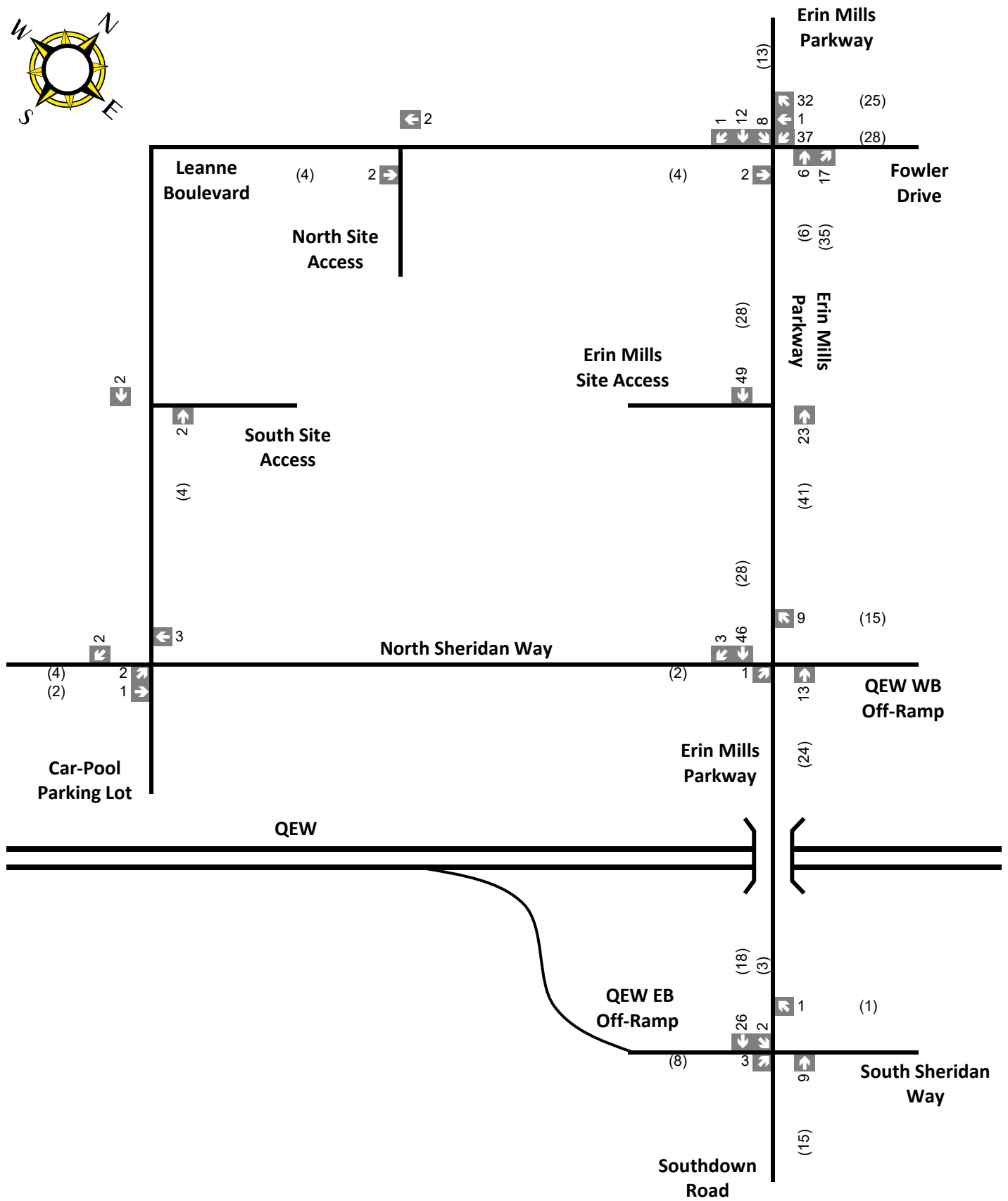
ID	Development	Statistics	Source & Date
1	1970 and 1980 Fowler Drive	A 24-storey apartment building with 285 dwelling units	TIS by LEA Group, January 2026
2	2225 Erin Mills Parkway	620 units: 249 in Zone A and 371 in Zone G	TIS & Traffic Memo by WSP, May & November 2023

Traffic assignment figures for these background developments are available from their associated transportation studies.

The total background development traffic volumes are illustrated in **Figure 3-3** and the individual traffic assignment figures are provided in **Appendix F**.

3.5 Future Background Traffic Volumes

The 2031, 2036 and 2041 future background traffic forecasts corresponding to the weekday a.m. and p.m. peak hours were derived by applying the general growth rates and superimposing the traffic generated by the background developments (as shown in Figure 3-3) onto existing traffic volumes. The resulting future background traffic volumes for the 2031, 2036 and 2041 horizons are illustrated in **Figure 3-4**, **Figure 3-5**, and **Figure 3-6**, respectively.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 3-3

Background Development Traffic Volumes

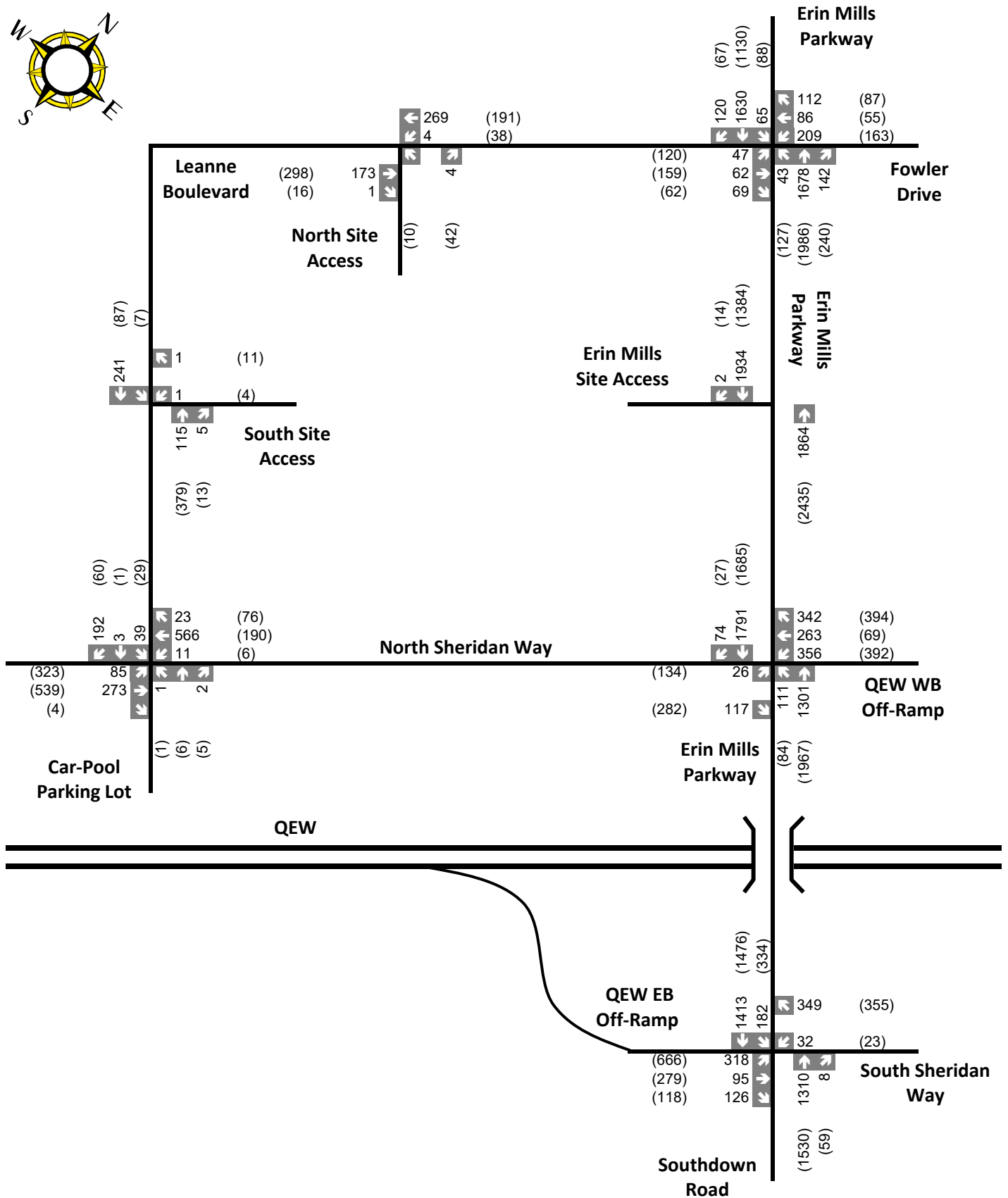


Figure 3-4
2031 Future Background
Background Traffic Volumes

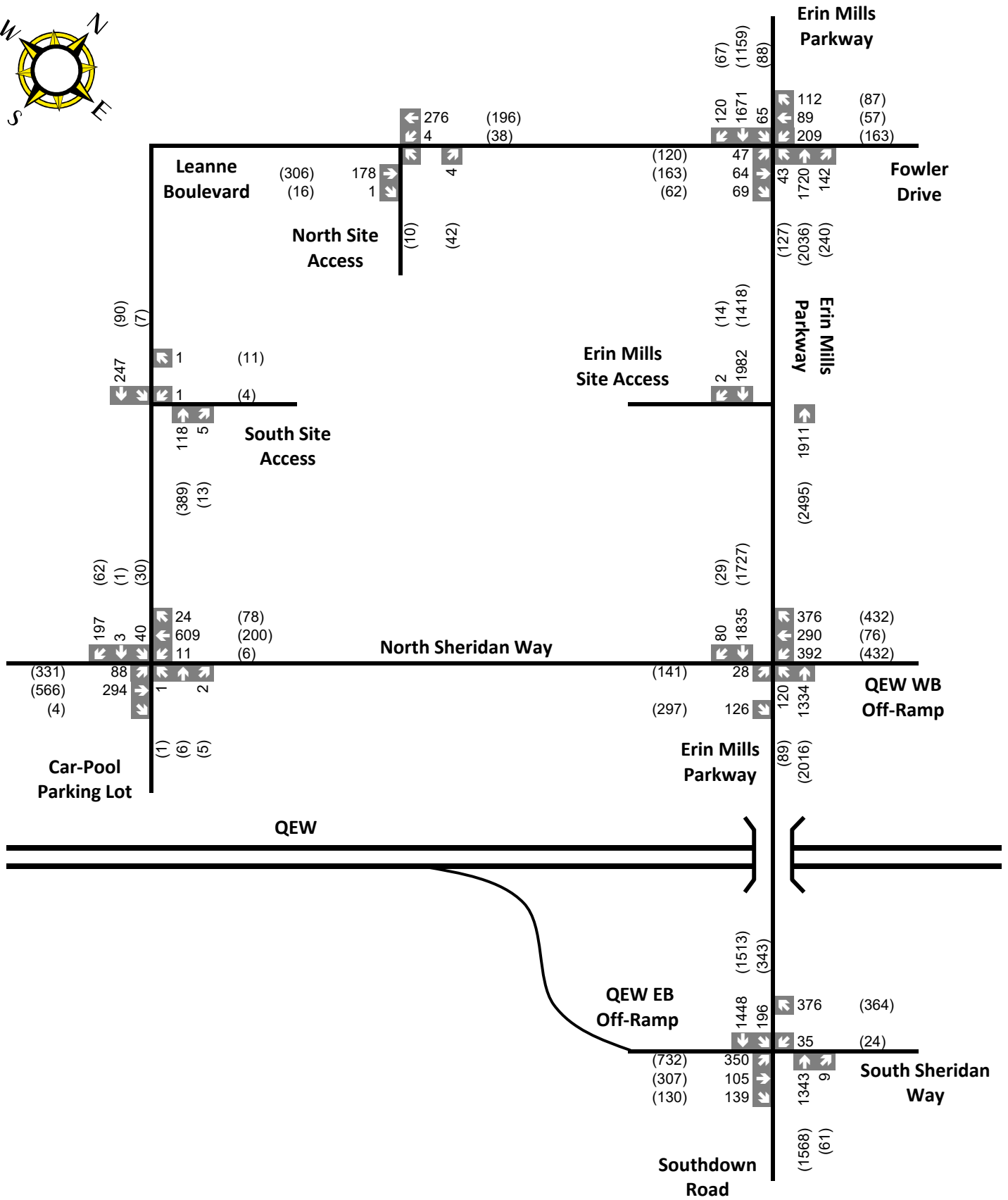
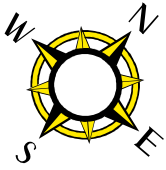


Figure 3-5

2036 Future Background
Background Traffic Volumes

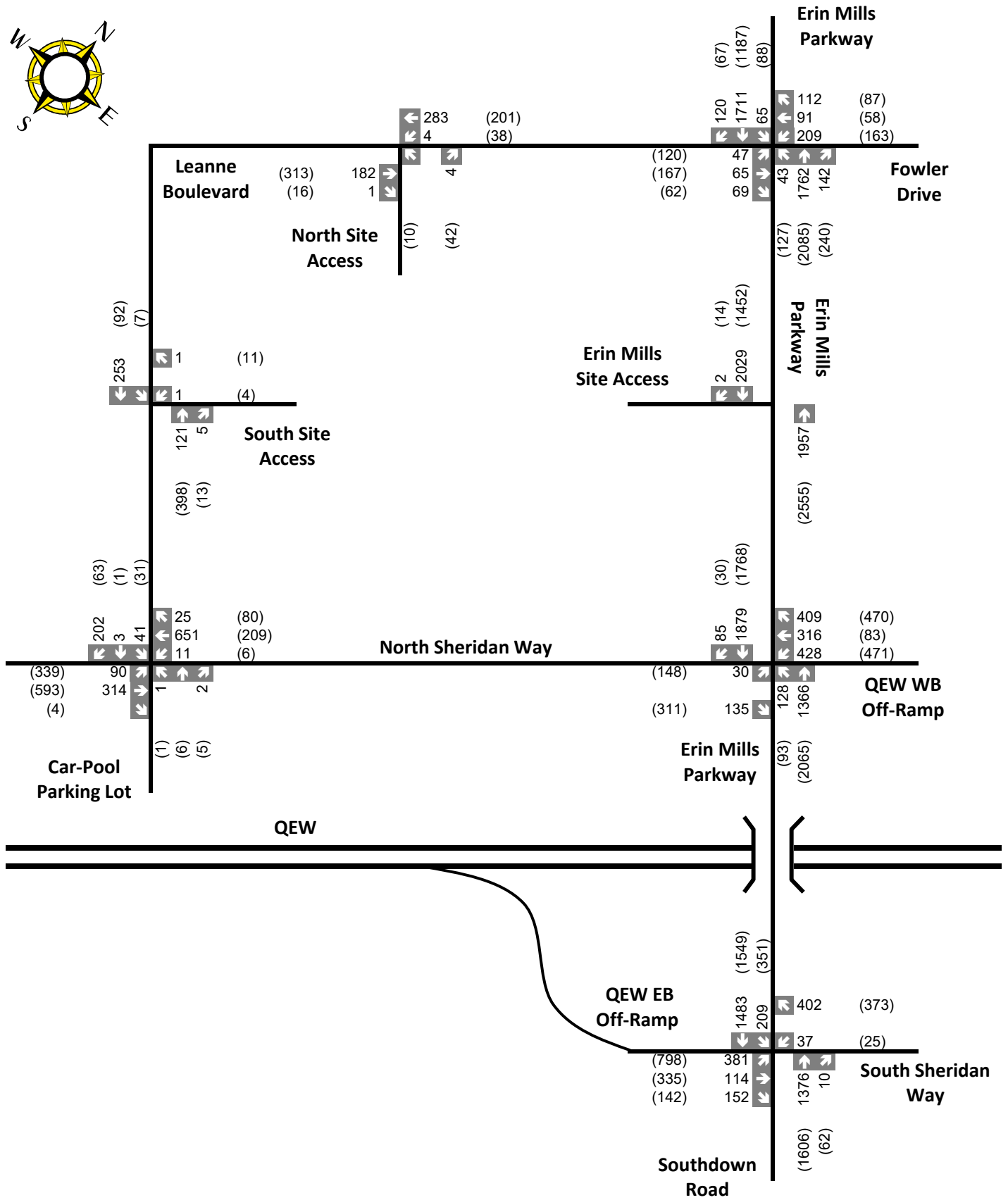


Figure 3-6
2041 Future Background
Background Traffic Volumes

3.6 Future Background Traffic Operations

3.6.1 Future Background Intersection Capacity Analysis

The operation of the study intersections was analyzed using the Highway Capacity Manual (HCM) methodology and Synchro 12. **Table 3-3** provides a summary of the intersection LOS and V/C under future background conditions for 2031, 2036 and 2041. Detailed Synchro worksheets are provided in **Appendix G**.

The Synchro parameters, such as heavy vehicle percentages, PHF and ideal saturation flow, were consistent with existing conditions. In addition, the existing cycle lengths and signal timing splits were maintained as existing conditions.

Table 3-3 Future Background Intersection Capacity Results

Intersection		Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Horizon Year 2031					
Signalized Intersections ¹					
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		B (17.8)	-	B (17.5)	-
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp		D (41.6)	WB-L (0.82)	D (38.6)	WB-L (0.78) WB-LT (0.76) NB-T (0.93)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvements	C (34.5)	EB-L (0.76) EB-LT (0.75) WB-R (0.88)	F (83.7)	EB-L (1.04) EB-LT (1.00) NB-T (1.06) SB-T (1.02)
	With Improvements	N/A	N/A	E (69.8)	EB-L (0.97) EB-LT (0.93) WB-R (0.85) NB-T (0.99) SB-L (0.91) SB-T (0.95)
Unsignalized Intersections ²					
Erin Mills Parkway at Site Access		A (0.0)	SB-T (0.41) (A)	A (0.0)	NB-T (0.50) (A)
Leanne Boulevard at North Site Access		A (8.9)	NB-LR (0.00) (A)	B (10.7)	NB-LR (0.09) (B)
Leanne Boulevard at South Site Access		A (9.5)	WB-LR (0.00) (A)	B (10.5)	WB-LR (0.03) (B)
Leanne Boulevard at North Sheridan Way		E (41.1)	SB-L (0.30) (E)	F (78.2)	NB-LTR (0.09) (E) SB-L (0.39) (F)

Intersection		Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Horizon Year 2036					
Signalized Intersections ¹					
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		B (17.4)	-	B (17.5)	WB-L (0.88)
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	No Improvements	D (46.0)	WB-L (0.80) SB-TR (0.82)	D (45.8)	WB-L (0.79) WB-LT (0.77) WB-R (0.82) NB-T (1.02)
	With Improvements	N/A	N/A	D (43.9)	WB-L (0.84) WB-TL (0.83) WB-R (0.75) NB-T (0.90)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvements	D (38.5)	EB-L (0.77) EB-LT (0.76) WB-R (0.91)	F (102.3)	EB-L (1.14) EB-LT (1.10) NB-T (1.12) SB-T (1.08)
	With Improvements	N/A	N/A	F (85.1)	EB-L (0.98) EB-LT (0.94) WB-R (0.89) NB-T (1.05) SB-L (0.91) SB-T (1.01)
Unsignalized Intersections ²					
Erin Mills Parkway at Site Access		A (0.0)	SB-T (0.42) (A)	A (0.0)	NB-T (0.51) (A)
Leanne Boulevard at North Site Access		A (8.9)	NB-LR (0.00) (A)	B (10.7)	NB-LR (0.09) (B)
Leanne Boulevard at South Site Access		A (9.5)	WB-LR (0.00) (A)	B (10.6)	WB-LR (0.03) (B)
Leanne Boulevard at North Sheridan Way		F (52.3)	NB-LTR (0.03) (E) SB-L (0.37) (F)	F (93.3)	NB-LTR (0.10) (E) SB-L (0.45) (F)
Horizon Year 2041					
Signalized Intersections ¹					
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		B (16.8)	-	B (17.6)	WB-L (0.89)
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	No Improvements	D (52.8)	WB-L (0.77) SB-TR (0.95)	E (66.5)	EB-R (0.86) WB-L (0.79) WB-LT (0.77) WB-R (0.90) NB-T (1.13) SB-TR (0.78)
	With Improvements	N/A	N/A	D (48.2)	WB-L (0.86) WB-LT (0.84) WB-R (0.85) NB-T (0.98)

Intersection		Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvements	D (42.5)	EB-L (0.79) EB-LT (0.78) WB-R (0.93)	F (119.6)	EB-L (1.24) EB-LT (1.20) NB-T (1.15) SB-T (1.11)
	With Improvements	N/A	N/A	F (97.6)	EB-L (1.07) EB-LT (1.03) WB-R (0.90) NB-T (1.08) SB-L (0.92) SB-T (1.04)
Unsignalized Intersections ²					
Erin Mills Parkway at Site Access		A (0.0)	SB-T (0.43) (A)	A (0.0)	NB-T (0.53) (A)
Leanne Boulevard at North Site Access		A (8.9)	NB-LR (0.00) (A)	B (10.8)	NB-LR (0.09) (B)
Leanne Boulevard at South Site Access		A (9.5)	WB-LR (0.00) (A)	B (10.7)	WB-LR (0.03) (B)
Leanne Boulevard at North Sheridan Way		F (68.5)	NB-LTR (0.03) (E) SB-L (0.46) (F)	F (112.2)	NB-LTR (0.11) (F) SB-L (0.51) (F)

1 For signalized intersections, the LOS is based on the overall intersection delay. Critical v/c ratios are only listed for movements with values over 0.85 for a signalized intersection, or 0.75 for an intersection at highway ramps.

2 For unsignalized intersections, the LOS is based on the delay associated with the highest delay. Critical movements are those with a LOS 'E' or worse.

The following summarizes the future background traffic conditions, with the application of general traffic growth and the inclusion of two background developments.

2031 Future Background Capacity Results

Under the 2031 future background traffic conditions, the signalized intersections are projected to operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which is forecast to operate at LOS 'F' during the p.m. peak hour. At this intersection, several movements are expected to operate slightly over capacity during the p.m. peak hour, with v/c ratios greater than 1.0, including northbound through, southbound through, and eastbound left-turn movements. However, WSP recommends signal timing optimization during the p.m. peak hour, which assists in maintaining these movements within operating capacity, as discussed in **Section 3.6.2**.

At the unsignalized intersections, almost all of the movements perform with an LOS 'D' or better during both the a.m. and p.m. weekday peak hours. The only exception is the unsignalized intersection of Leanne Boulevard at North Sheridan Way, where the southbound left turn movement operates at LOS 'E' and 'F' with v/c ratios of 0.30 and 0.39 during the weekday a.m. and p.m. peak hours, respectively. In addition, the northbound movement at this intersection is projected to operate at LOS 'E' with a v/c ratio of 0.09 during the p.m. peak

hour. However, these movements are expected to operate within capacity under the 2031 future background conditions.

The existing site access intersections are projected to operate at LOS 'B' or better during the weekday a.m. and p.m. peak hours, with no critical movements identified.

2036 Future Background Capacity Results

Similar to the 2031 background conditions, the signalized intersections are projected to operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which is forecast to operate at LOS 'F' during the p.m. peak hour. This intersection is expected to operate with northbound through, southbound through, and eastbound through/left-turn movements over capacity during the p.m. peak hour. In addition, the northbound through movement at Erin Mills Parkway and North Sheridan Way/QEW WB off-ramp is projected to operate slightly above capacity with a v/c of 1.02 during the p.m. peak hour. To address these operational constraints, WSP recommends increasing the signal cycle length from 140 to 160 seconds during the p.m. peak hour at both intersections, as discussed further in **Section 3.6.2**.

At the unsignalized intersection of Leanne Boulevard at North Sheridan Way, southbound left turn movement operates at LOS 'F' with v/c ratios of 0.37 and 0.45 during the weekday a.m. and p.m. peak hours, respectively. In addition, the northbound movement at this intersection is forecast to operate at LOS 'E', with v/c ratios of 0.03 during the a.m. peak hour and 0.10 during the p.m. peak hour. However, these movements are expected to operate within capacity under the 2036 future background conditions.

The existing site access intersections are projected to operate at LOS 'B' or better during the weekday a.m. and p.m. peak hours, with no critical movements identified.

2041 Future Background Capacity Results

Under the 2041 future background conditions, the signalized intersections are projected to operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours, except for two MTO off-ramp intersections. The intersection of Southdown Road at South Sheridan Way/QEW eastbound off-ramp is forecast to operate at LOS 'F' during the weekday p.m. peak hour, while the intersection of Erin Mills Parkway at North Sheridan Way/QEW westbound off-ramp is projected to operate at LOS 'E' during the same period.

At the South Sheridan Way/QEW eastbound off-ramp intersection, the northbound through, southbound through, and eastbound through and left-turn movements are expected to operate over capacity during the p.m. peak hour. In addition, the northbound through movement at the North Sheridan Way/QEW westbound off-ramp intersection is projected to operate over capacity, with a v/c ratio of 1.13 during the weekday p.m. peak hour. To address these operational constraints, WSP recommends increasing the signal cycle length from 140 to 160 seconds during the p.m. peak hour at both intersections, as discussed further in **Section 3.6.2**.

Similar to the 2036 background conditions, southbound left turn movement at the unsignalized intersection of Leanne Boulevard at North Sheridan Way operates at LOS 'F' with v/c ratios of 0.46 and 0.51 during the weekday a.m. and p.m. peak hours, respectively. In addition, the northbound movement at this intersection is forecast to operate at LOS 'E', with v/c ratios of 0.03 during the a.m. peak hour and 0.11 during the p.m. peak hour. However, these

movements are expected to operate within capacity under the 2041 future background conditions.

The existing site access intersections are projected to operate at LOS 'B' or better during the weekday a.m. and p.m. peak hours, with no critical movements identified.

3.6.2 Potential Mitigation Measures

Although capacity constraints are forecast at the ramp intersections in the longer-term horizons, these results are based on a future analysis that applies conservative assumptions for future traffic growth. To improve traffic operations under future background conditions, WSP recommends implementing the following mitigation measures:

2031 Future Background Conditions

- At the intersection of Southdown Road at South Sheridan Way/QEW eastbound off ramp, optimize signal timing during the weekday p.m. peak hour while maintaining the cycle length.

2036 & 2041 Future Background Conditions

- At the intersection of Southdown Road at South Sheridan Way / QEW eastbound off ramp, increase the signal cycle length from 140 to 160 seconds during the weekday p.m. peak hour.
- At the intersection of Erin Mills Parkway at North Sheridan Way / QEW westbound off ramp, increase the signal cycle length from 140 to 160 seconds during the weekday p.m. peak hour.

As shown in **Table 3-3**, under the 2031 future background conditions, the application of the recommended improvements at the QEW eastbound off-ramp intersection results in all movements operating within capacity during the weekday p.m. peak hour.

Under the 2036 and 2041 future background conditions, increasing the signal cycle length during the weekday p.m. peak hour improves the operational performance at the QEW westbound off-ramp intersection, such that all movements are projected to operate within capacity during the weekday p.m. peak hour.

The signal improvement at the QEW eastbound off-ramp intersection also results in improved operations. While some movements continue to operate over capacity, the increased signal cycle length improves overall movement efficiency, with most critical movements operating at or near capacity during the weekday p.m. peak hour. Further discussion of this topic is provided in **Section 5.3.2**.

3.6.3 Queuing Assessment

Queuing analyses for the study signalized intersections were also assessed using Synchro 12 software. **Table 3-4** summarizes the projected 95th percentile queues for the exclusive left- and right-turn lanes under 2041 future background conditions. The movements with 95th percentile queues forecasted to exceed the available storage lengths are highlighted in red and the 50th percentile queues are also listed for these movements. The detailed queuing reports are provided in **Appendix G**.

Table 3-4 2041 Future Background Queuing Analysis

Intersection		Movement (Storage Length) ¹	95 th Percentile Queue (50 th Percentile Queue)	
			A.M. Peak Hour	P.M. Peak Hour
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		EB-L (95 m)	23 m	53 m
		WB-L (50 m)	86 m (63 m)	74 m (50 m)
		WB-R (35 m)	16 m	14 m
		NB-L (100 m)	2 m	5 m
		NB-R (50 m)	0 m	0 m
		SB-L (115 m)	14 m	30 m
		SB-R (60 m)	16 m	8 m
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	No Improvement	EB-L (60 m)	20 m	66 m (43 m)
		WB-L (200 m)	159 m	123 m
		NB-L (70 m)	48 m	10 m
	With Improvement	EB-L (60 m)	N/A	75 m (52 m)
		WB-L (200 m)		154 m
		NB-L (70 m)		17 m
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvement	EB-R (85 m)	18 m	27 m
		WB-L (195 m)	25 m	18 m
		NB-R (55 m)	0 m	2 m
		SB-L (110 m)	58 m	141 m (92 m)
	With Improvement	EB-R (85 m)	N/A	30 m
		WB-L (195 m)		20 m
		NB-R (55 m)		4 m
		SB-L (110 m)		188 m (118 m)

¹ Measured using Google Earth; values rounded to the nearest five metres.

Under the 2041 future background conditions, the majority of the forecast 95th percentile queues are expected to be accommodated within the available lane storage during both the weekday a.m. and p.m. peak hours. Some queues only occasionally exceed the storage as the average queues are contained within the storage length, except for the westbound left turn at Erin Mills Parkway at Leanne Boulevard/Fowler Drive during the a.m. peak hour. The average queues at this movement exceed available storage by 13 m during the a.m. peak hour.

Under the improvement scenarios, the southbound left-turn movement at the South Sheridan Way/QEW eastbound off-ramp intersection is projected to exceed the available storage by approximately 8 m during the weekday p.m. peak hour.

4 Site-Generated Traffic

4.1 Sites Accesses

As noted in **Section 1**, the subject site is currently accessed by two full-move accesses along Leanne Boulevard and a right-in-only access from Erin Mills Parkway. Under the proposed development, the site will be served by five full-move accesses along Leanne Boulevard. In addition, the Applicant informed WSP that the existing right-in access onto Erin Mills Parkway be modified to a right-in/right-out access configuration upon completion of the development.

The future total lane configurations showing the site access arrangements are shown in **Figure 4-1**.

4.2 Modal Splits and Trip Generation

Vehicular trips generated by the proposed development have been established in accordance with the ITE Trip Generation Manual, 12th Edition. Land Use Codes (LUC) 215 – Single-Family Attached Housing and 221 – Multifamily Housing (Mid-Rise) were selected to calculate the new site trip generation for both land use types.

Non-automobile trip reductions were applied to the calculation of trip generation. In order to determine the proportion of trips made by automobiles (including passengers), travel data from the 2022 TTS database were examined. Home-based data for a whole day period was extracted from the TTS database for Traffic Analysis Zones 4400, 4663, 4009, 4412, and 4414 surrounding or near the subject site, which allows a representative sample of trip distribution and mode characteristics for residents in the area. The TTS modal splits in the study area are summarized in **Table 4-1** and the associated TTS queries are provided in **Appendix H**.

Table 4-1 Area Modal Split Percentages

Primary Travel Mode	Modal Split Percentage	
	A.M. Peak Hour ¹	P.M. Peak Hour ¹
Auto Driver	52%	66%
Auto Passenger	20%	18%
Taxi/Rideshare	0%	0%
Transit	17%	6%
Cycling	0%	0%
Walking	11%	10%
Other	0%	0%
Non-Auto Modes	28%	16%

¹ Based on home-based trip peak directions: a.m. outbound and p.m. inbound.

The proposed development includes a total of 367 residential units, comprising 203 apartment units and 164 townhouse units. The site vehicular trips generated by the proposed development during the weekday a.m. and p.m. peak hours are calculated in **Table 4-2**.

Table 4-2 Proposed Development Trip Generation

Land Use (GFA)	Parameter	A.M. Peak Hour			P.M. Peak Hour		
		In	Out	Total	In	Out	Total
Residential (164 Units) Single-Family Attached Housing (LUC 215)	Trip Generation Basis ¹	T = 0.59X – 15.52			T = 0.57X – 7.84		
	Directional Distribution	25%	75%	100%	57%	43%	100%
	ITE Trips	20	61	81	49	37	86
	Modal Split Reduction Percentage ³	23%	23%	-	11%	11%	-
	Modal Split Reduction	-5	-14	-19	-5	-4	-9
	Vehicular Trips	15	47	62	44	33	77
Residential (203 Units) Multifamily Housing – Midrise (LUC 221)	Trip Generation Basis ²	T = 0.42X – 7.77			T = 0.36X + 3.07		
	Directional Distribution	23%	77%	100%	64%	27%	76%
	ITE Trips	18	60	78	49	27	76
	Modal Split Reduction Percentage ³	23%	23%	-	11%	11%	-
	Modal Split Reduction	-4	-14	-18	-5	-3	-8
	Vehicular Trips	14	46	60	44	24	68
Net Total Vehicular Trips		29	93	122	88	57	145

1 Based on LUC 215 – Single-Family Attached Housing General Urban/Suburban from ITE.

2 Based on LUC 221 – Multifamily Housing (Mid-Rise) General Urban/Suburban & Not Close to Rail Transit from ITE.

3 ITE assumption of a five-percent non-vehicular trip rate considered.

As shown in the table above, the proposed development is estimated to generate 122 (29 inbound and 93 outbound) and 145 (88 inbound and 57 outbound) two-way auto trips during the weekday a.m. and p.m. peak hours, respectively.

4.3 Trip Distribution and Assignment

The projected site trip distribution was developed based on the existing distribution patterns according to the 2022 TTS database for home-based trips, using the same zones for determining area modal splits. **Table 4-3** summarizes the derived trip distribution in peak directions (a.m. outbound and p.m. inbound). The associated TTS data is provided in **Appendix H**.

Table 4-3 Site Trip Distribution Summary

Direction	Trip Distribution Percentage	
	A.M. Peak Hour ¹	P.M. Peak Hour ¹
Northwest	28%	18%
North	14%	9%
Northeast	32%	29%
East	10%	22%
Southeast	0%	0%
South	2%	1%
Southwest	2%	4%
West	11%	16%
Total	100%	100%

¹ Based on home-based trip peak directions: a.m. outbound and p.m. inbound.

Based on the trip distribution percentage shown in **Table 4-3**, the weekday a.m. and p.m. peak hour site-generated trips were assigned to the road network based on the trip distribution information and the most logical paths for vehicles to travel to minimize travel time and distance.

Figure 4-2 illustrates the resulting distribution and assignment of site-generated trips during the weekday a.m. and p.m. peak hours.

The proposed development involves the redevelopment of the site's existing land uses. The property is currently occupied by a commercial building with multiple tenants. As these existing land uses are proposed to be demolished and replaced by the proposed residential development, the traffic volumes generated by the existing site uses have been removed from the study road network for the purposes of the traffic assessment. This approach ensures that the future analysis reflects only background traffic growth, traffic from background developments and traffic associated with the proposed development. The existing site-generated traffic assignment that will be displaced within the study area is illustrated in **Figure 4-3**.

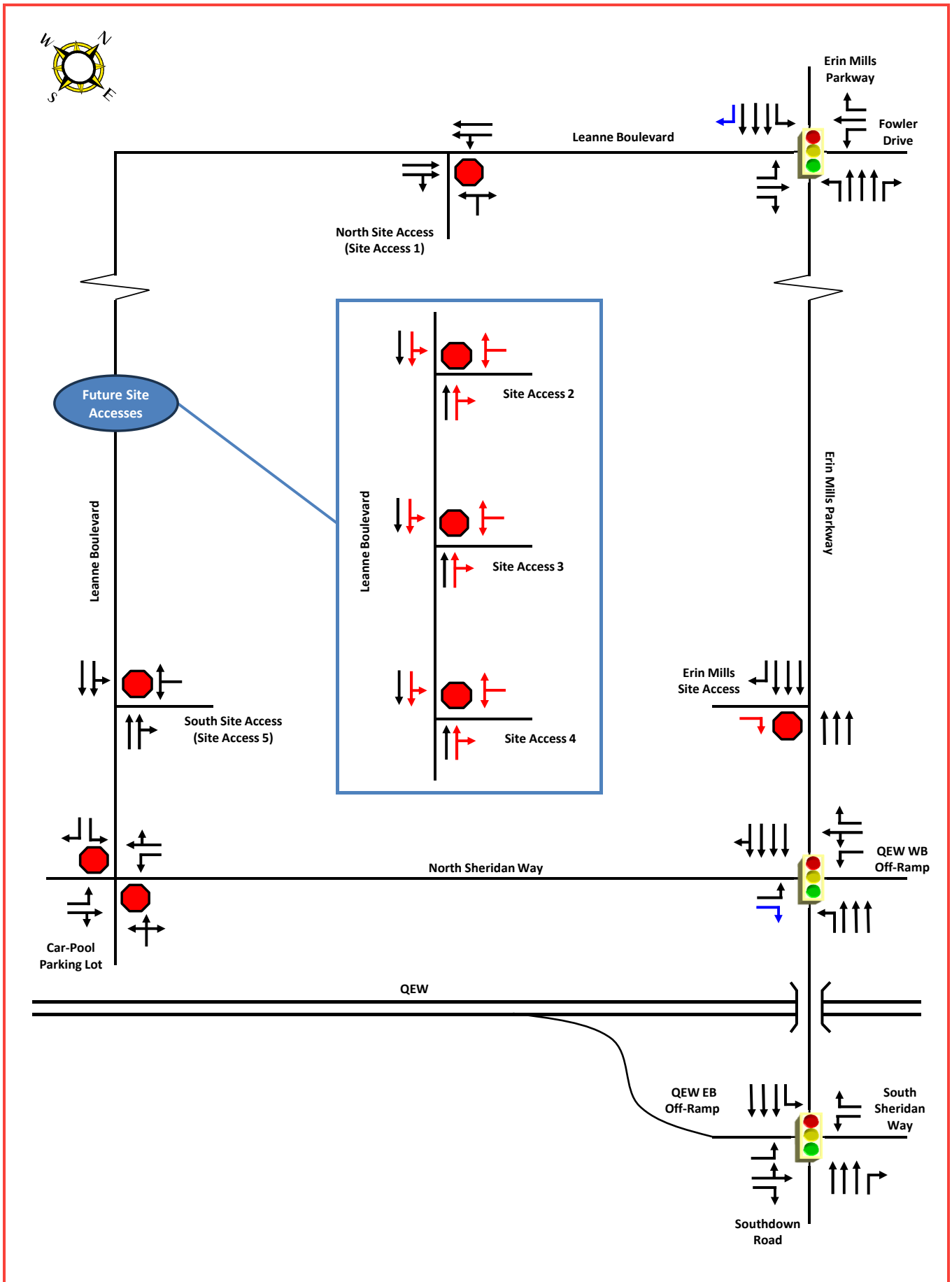
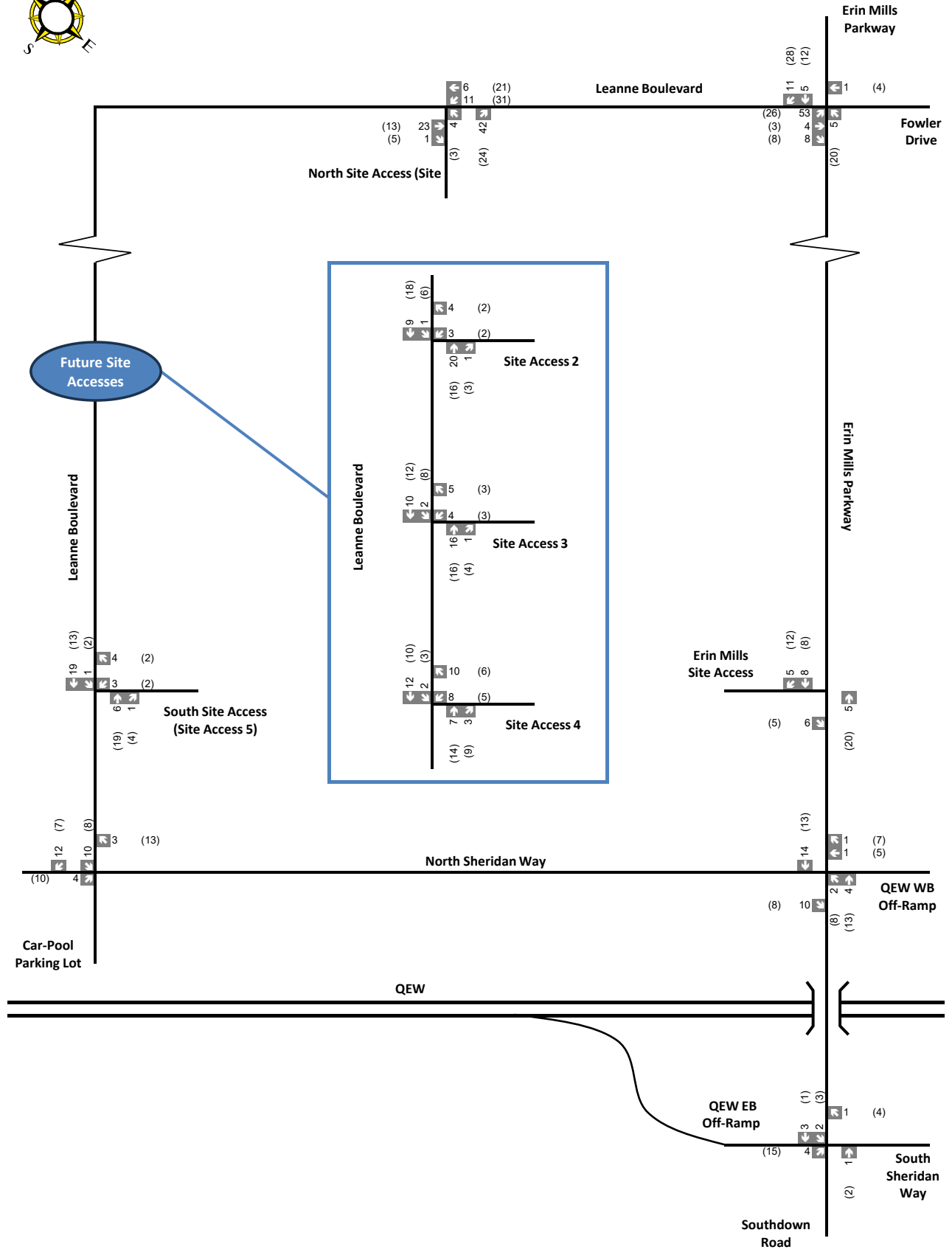


Figure 4-1



- Legend**
- Unsignalized Intersection
 - Signalized Intersection
 - Existing Lane Configuration
 - Future Lane Configuration
 - Channelized Right-Turn

Future Lane Configurations



Legend

xx A.M. Peak Hour Traffic Volumes	(xx) P.M. Peak Hour Traffic Volumes
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Figure 4-2
Site-Generated Traffic Volumes

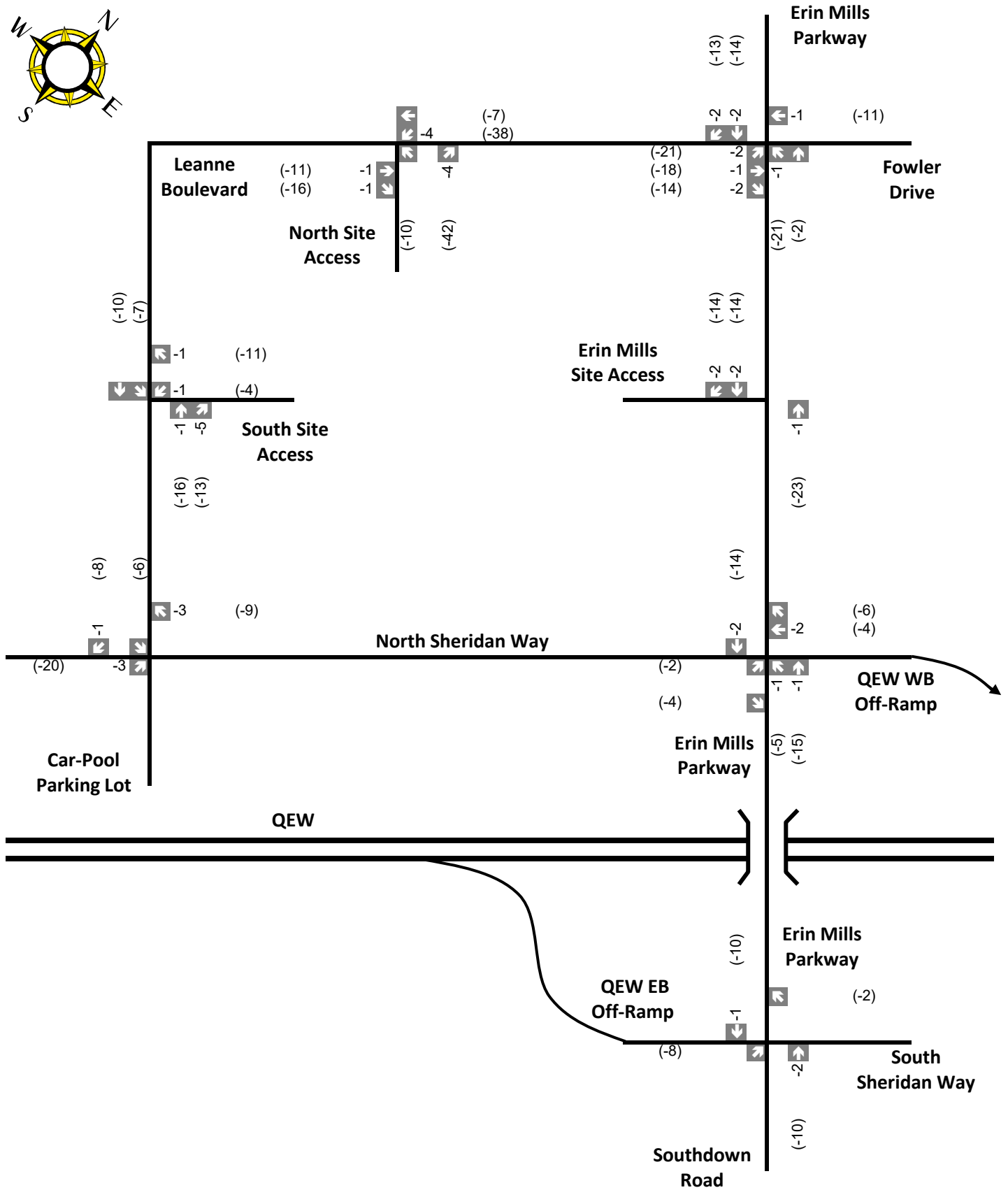


Figure 4-3
Removal of Existing Site Traffic

5 Future Total Traffic Conditions

5.1 Future Total Traffic Volumes

The 2031, 2036, and 2041 future total traffic forecast corresponding to the weekday a.m. and p.m. peak hours was derived by superimposing the new trips generated by the proposed development (Figure 4-2) and the future background traffic volumes, and subtracting existing site traffic volumes of the existing uses (Figure 4-3). The resulting future total traffic volumes are illustrated in **Figure 5-1**, **Figure 5-2** and **Figure 5-3**, respectively.

5.2 Signal Warrant Analysis

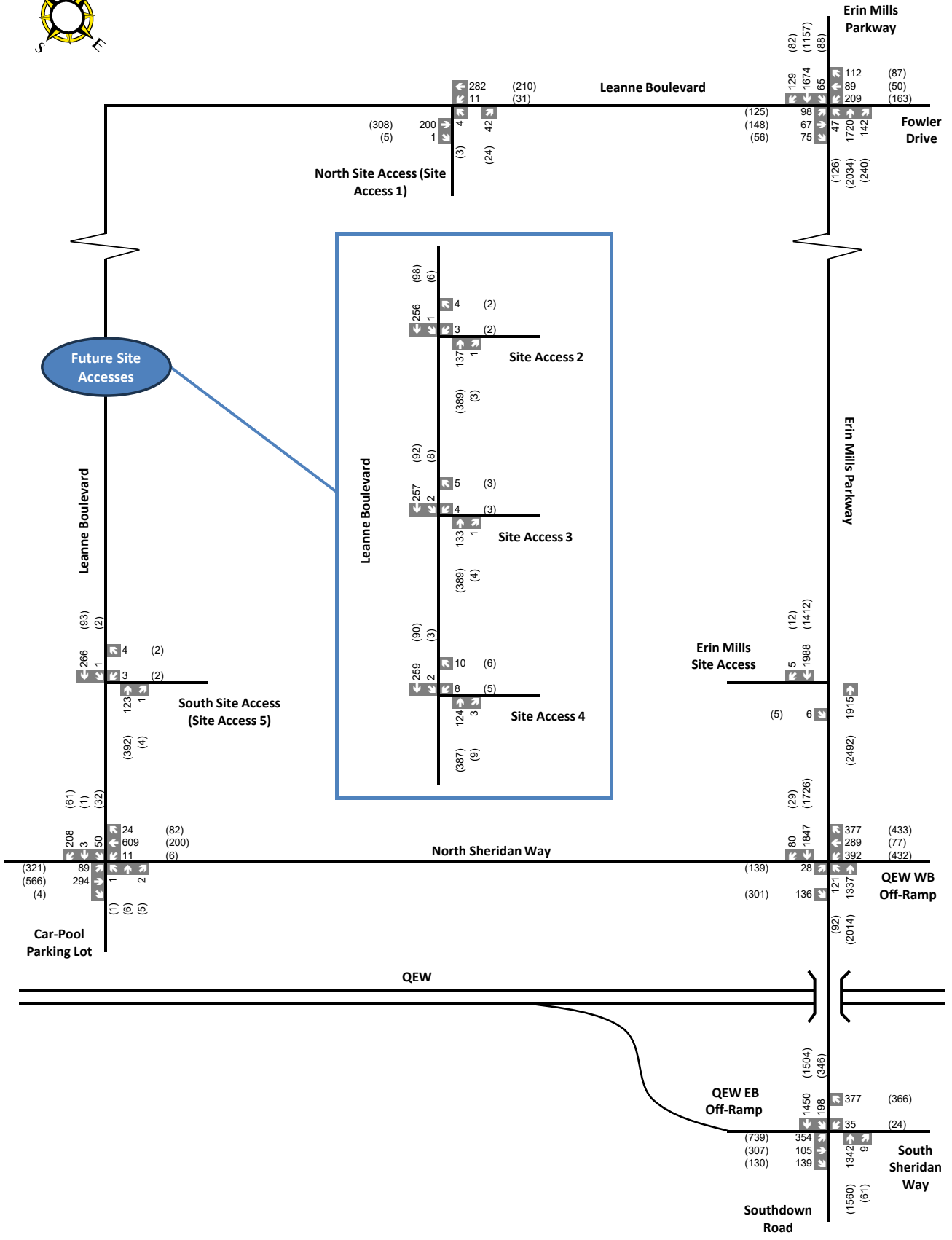
A signal warrant analysis has been completed at the intersection of Leanne Boulevard at North Sheridan Way based on the Ontario Traffic Manual (OTM) Book 12 - Justification 7 to determine if the traffic signals are warranted. Based on the OTM requirements and the projected 2031, 2036 and 2041 future traffic volumes, in Figure 5-1, Figure 5-2 and Figure 5-3, the results indicate that signals are not warranted for this intersection under a.m. and p.m. peak hours. The detailed warrant analysis is shown in **Appendix I**.

5.3 Future Total Traffic Operations

5.3.1 Future Total Intersection Capacity Analysis

The operation of the study intersections was analyzed using the Highway Capacity Manual (HCM) methodology and Synchro 12. **Table 5-1** provides a summary of the intersection LOS and V/C under future total conditions for 2031, 2036 and 2041. Detailed Synchro worksheets are provided in **Appendix J**.

The Synchro parameters used to assess the future background conditions (such as heavy vehicle percentages, PHF and ideal saturation flow) have been maintained for the future total conditions to allow an “Apples to Apples” comparison. In addition, the existing cycle lengths and signal timing splits were maintained as existing conditions.



Legend

xx A.M. Peak Hour Traffic Volumes (xx) P.M. Peak Hour Traffic Volumes

Figure 5-2

2036 Future Total Traffic Volumes

Table 5-1 Future Total Intersection Capacity Results

Intersection		Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Horizon Year 2031					
Signalized Intersections ¹					
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		B (18.1)	-	B (16.3)	WB-L (0.85)
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp		D (41.8)	WB-L (0.82)	D (38.7)	WB-L (0.77) WB-LT (0.76) WB-R (0.75) NB-T (0.94)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvements	C (34.7)	EB-L (0.76) EB-LT (0.75) WB-R (0.89)	F (84.6)	EB-L (1.05) EB-LT (1.01) NB-T (1.06) SB-T (1.02)
	With Improvements	N/A	N/A	E (71.2)	EB-L (0.98) EB-LT (0.93) WB-R (0.85) NB-T (1.00) SB-L (0.91) SB-T (0.96)
Unsignalized Intersections ²					
Erin Mills Parkway at Site Access		A (9.1)	EB-R (0.00) (A)	A (8.8)	EB-R (0.00) (A)
Leanne Boulevard at North Site Access (Proposed Site Access 1)		A (9.4)	NB-LR (0.01) (A)	B (10.0)	NB-LR (0.04) (B)
Leanne Boulevard at South Site Access (Proposed Site Access 5)		A (9.5)	WB-LR (0.01) (A)	B (10.9)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 2		A (9.6)	WB'LR (0.01) (A)	B (11.0)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 3		A (9.6)	WB-LR (0.01) (A)	B (11.0)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 4		A (9.6)	WB-LR (0.03) (A)	B (10.9)	WB-LR (0.02) (B)
Leanne Boulevard at North Sheridan Way		E (45.8)	SB-L (0.38) (E)	F (76.9)	SB-L (0.40) (F)
Horizon Year 2036					
Signalized Intersections ¹					
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		B (17.7)	-	B (16.3)	WB-L (0.86)
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	No Improvements	D (46.3)	WB-L (0.80) SB-TR (0.83)	D (46.9)	WB-L (0.79) WB-LT (0.77) WB-R (0.85) NB-T (1.03)
	With Improvements	N/A	N/A	D (44.3)	WB-L (0.84) WB-LT (0.83) WB-R (0.75) NB-T (0.91)

Intersection		Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
		Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvements	D (38.8)	EB-L (0.78) EB-LT (0.76) WB-R (0.91)	F (103.3)	EB-L (1.15) EB-LT (1.10) NB-T (1.12) SB-T (1.08)
	With Improvements	N/A	N/A	F (85.1)	EB-L (0.99) ET-LT (0.95) WB-R (0.89) NB-T (1.04) SB-L (0.91) SB-T (1.01)
Unsignalized Intersections²					
Erin Mills Parkway at Site Access		A (9.2)	EB-R (0.00) (A)	A (8.8)	EB-R (0.00) (A)
Leanne Boulevard at North Site Access (Proposed Site Access 1)		A (9.5)	NB-LR (0.06) (A)	B (10.1)	NB-LR (0.04) (B)
Leanne Boulevard at South Site Access (Proposed Site Access 5)		A (9.5)	WB-LR (0.01) (A)	B (11.0)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 2		A (9.6)	WB-LR (0.01) (A)	B (11.1)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 3		A (9.6)	WB-LR (0.01) (A)	B (11.1)	WB-LR (0.01) (B)
Leanne Boulevard at Proposed Site Access 4		A (9.6)	WB-LR (0.03) (A)	B (11.0)	WB-LR (0.02) (B)
Leanne Boulevard at North Sheridan Way		F (60.5)	NB-LTR (0.03)(E) SB-L (0.47) (F)	F (91.9)	NB-LTR (0.10)(E) SB-L (0.46) (F)
Horizon Year 2041					
Signalized Intersections¹					
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		B (17.1)	-	B (16.6)	WB-L (0.86)
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	No Improvements	D (53.4)	WB-L (0.77) SB-TR (0.97)	E (67.2)	EB-R (0.87) WB-L (0.78) WB-LT (0.77) WB-R (0.92) NB-T (1.13) SB-TR (0.78)
	With Improvements	N/A	N/A	D (51.5)	WB-L (0.86) WB-LT (0.84) WB-R (0.85) NB-T (0.98)
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvements	D (42.9)	EB-L (0.79) EB-LT (0.77) WB-R (0.93) SB-T (0.85)	F (119.7)	EB-L (1.26) EB-LT (1.20) NB-T (1.15) SB-T (1.11)
	With Improvements	N/A	N/A	F (90.3)	EB-L (1.08) EB-LT (1.03) WB-R (0.91) NB-T (1.07) SB-L (0.93) SB-T (1.03)

Intersection	Weekday A.M. Peak Hour		Weekday P.M. Peak Hour	
	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)	Overall LOS (Delay in Seconds)	Critical Movements (v/c) (LOS)
Unsignalized Intersections ²				
Erin Mills Parkway at Site Access	A (9.2)	EB-R (0.00) (A)	A (8.8)	EB-R (0.00) (A)
Leanne Boulevard at North Site Access (Proposed Site Access 1)	A (9.5)	NB-LR (0.06) (A)	B (10.1)	NB-LR (0.04) (B)
Leanne Boulevard at South Site Access (Proposed Site Access 5)	A (9.5)	WB-LR (0.01) (A)	B (11.1)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 2	A (9.6)	WB-LR (0.01) (A)	B (11.2)	WB-LR (0.00) (B)
Leanne Boulevard at Proposed Site Access 3	A (9.6)	WB-LR (0.01) (A)	B (11.2)	WB-LR (0.01) (B)
Leanne Boulevard at Proposed Site Access 4	A (9.7)	WB-LR (0.03) (A)	B (11.1)	WB-LR (0.02) (B)
Leanne Boulevard at North Sheridan Way	F (81.2)	NB-LTR (0.04)(F) SB-L (0.57) (F)	F (110.7)	NB-LTR (0.11)(E) SB-L (0.53) (F)

1 For signalized intersections, the LOS is based on the overall intersection delay. Critical v/c ratios are only listed for movements with values over 0.85 for a signalized intersection, or 0.75 for an intersection at highway ramps.

2 For unsignalized intersections, the LOS is based on the delay associated with the highest delay. Critical movements are those with a LOS 'E' or worse.

Table 5-1 indicates that under the future total conditions, , the operational results are very similar to those observed under the future background conditions. Overall, the introduction of the proposed development is not anticipated to result in notable changes to intersection performance. The key findings for the future total conditions are summarized as follows:

2031 Future Total Capacity Results

Under the 2031 future total traffic conditions, the signalized intersections are projected to operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which is forecast to operate at LOS 'F' during the p.m. peak hour. At this intersection, several movements are expected to operate slightly over capacity during the p.m. peak hour, with v/c ratios greater than 1.0. With the application of the recommended signal timing optimization during the weekday p.m. peak hour, operations at this intersection improve to LOS 'E', and all movements are projected to operate within capacity, as summarized in **Table 5-1** and discussed further in **Section 5.3.2**.

At the unsignalized intersection of Leanne Boulevard at North Sheridan Way, southbound left turn movement continues to operate at LOS 'E' and 'F' with v/c ratios of 0.38 and 0.40 during the weekday a.m. and p.m. peak hours, respectively. However, this movement is expected to operate within capacity under the 2031 future total conditions.

All the proposed site access intersections are projected to operate at LOS 'B' or better during the weekday a.m. and p.m. peak hours, with no critical movements identified.

2036 Future Total Capacity Results

Similar to the 2036 background conditions, the signalized intersections continue to operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which is forecast to operate at LOS 'F' during the p.m. peak hour. This intersection is expected to operate with northbound through, southbound through, and eastbound through/left-turn movements over capacity during the p.m. peak hour. In addition, the northbound through movement at Erin Mills Parkway and North Sheridan Way/QEW WB off-ramp is projected to operate slightly above capacity with a v/c of 1.03 during the p.m. peak hour. However, increasing the signal cycle length from 140 to 160 seconds during the p.m. peak hour improves operations at both QEW off-ramp intersections (see **Section 5.3.2**).

At the unsignalized intersection of Leanne Boulevard at North Sheridan Way, southbound left turn movement operates at LOS 'F' with v/c ratios of 0.47 and 0.46 during the weekday a.m. and p.m. peak hours, respectively. In addition, the northbound movement at this intersection is forecast to operate at LOS 'E', with v/c ratios of 0.03 during the a.m. peak hour and 0.10 during the p.m. peak hour. However, these movements are expected to operate within capacity under the 2036 future total conditions.

All the proposed site access intersections are projected to operate at LOS 'B' or better during the weekday a.m. and p.m. peak hours, with no critical movements identified.

2041 Future Total Capacity Results

Under the 2041 future total conditions, the signalized intersections continue to operate at an overall LOS 'D' or better during the weekday a.m. and p.m. peak hours, except for two MTO off-ramp intersections. The intersection of Southdown Road at South Sheridan Way/QEW eastbound off-ramp is forecast to operate at LOS 'F' during the weekday p.m. peak hour, while the intersection of Erin Mills Parkway at North Sheridan Way/QEW westbound off-ramp is projected to operate at LOS 'E' during the same period.

At the South Sheridan Way/QEW eastbound off-ramp intersection, the northbound through, southbound through, and eastbound through and left-turn movements are expected to operate over capacity during the p.m. peak hour. In addition, the northbound through movement at the North Sheridan Way/QEW westbound off-ramp intersection is projected to operate over capacity, with a v/c ratio of 1.13 during the weekday p.m. peak hour. The signal timing improvements improve movement efficiency, with most critical movements operating below or near capacity, as summarized in **Table 5-1** and discussed further in **Section 5.3.2**.

Southbound left turn movement at the unsignalized intersection of Leanne Boulevard at North Sheridan Way operates at LOS 'F' with v/c ratios of 0.57 and 0.53 during the weekday a.m. and p.m. peak hours, respectively. In addition, the northbound movement at this intersection is forecast to operate at LOS 'F', with v/c ratios of 0.04 during the a.m. peak hour and at LOS 'E', with v/c ratios of 0.11 during the p.m. peak hour. However, these movements are expected to operate within capacity under the 2041 future total conditions.

Under the 2041 future total conditions, all the proposed site access intersections are projected to operate at LOS 'B' or better during the weekday a.m. and p.m. peak hours, with no critical movements identified.

Overall, future total traffic operations at the study intersections—particularly at the QEW off-ramp intersections—are very similar to those under the future background conditions, with only marginal increases in overall intersection delays and individual movement v/c ratios. This outcome is expected, as the site-generated traffic represents a very small proportion of the total future intersection traffic volumes.

As illustrated in **Figure 5-4**, site-generated trips represent 0% to 1.0% of total intersection volumes at the ramp study intersections under the 2041 future total conditions. In contrast, the biggest contributor to future traffic growth is general background traffic, which is projected to represent approximately 11% to 12% of total traffic volumes at these locations.

It should be noted that the site trips shown in **Table 4-2** are conservative since they show only new site trips generated by the site as requested by MTO in the TOR. In reality the existing site trips that use the QEW off-ramps will be removed from the roadway network (we estimated this as shown in **Figure 4-3**), and the net new site trips and impacts on traffic operations will be even less.

5.3.2 Potential Mitigation Measures

Under the future total traffic conditions, which incorporate background traffic growth together with site-generated traffic from the proposed development, operations at the MTO ramp intersections generally reflect a similar performance pattern to the future background conditions. The analysis demonstrates that signal timing recommendations proposed under future background conditions remain effective in improving operational performance, particularly during the weekday p.m. peak hour.

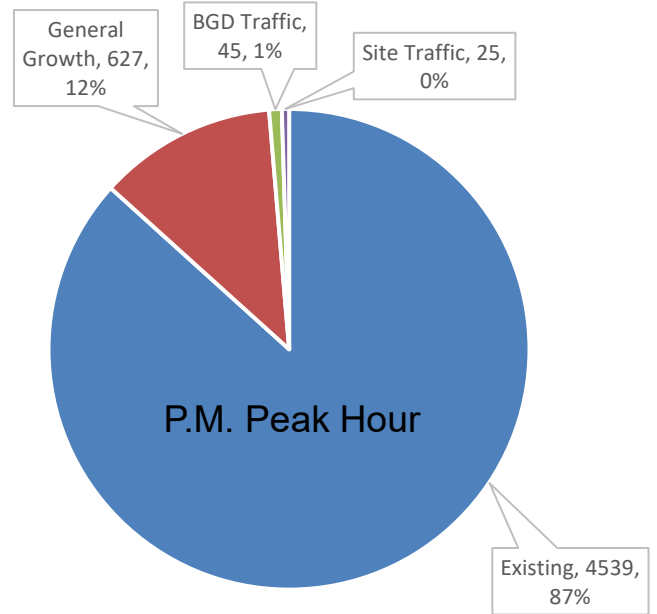
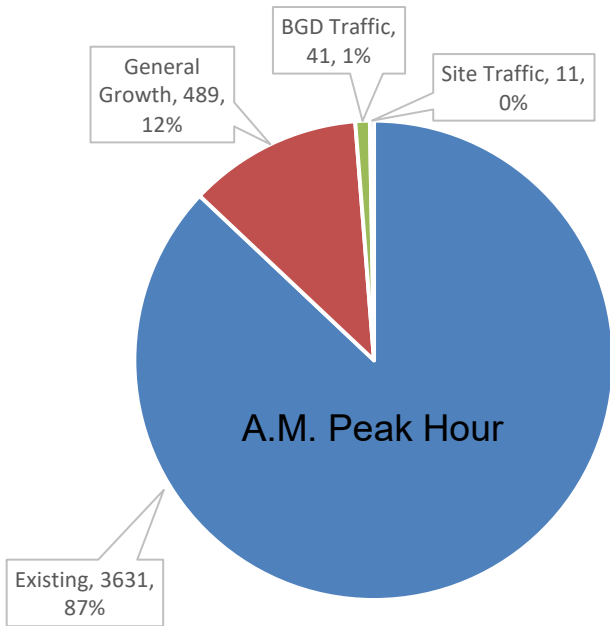
As shown in **Table 5-1**, under the 2031 future total conditions, optimizing the signal timing at the Southdown Road at South Sheridan Way/QEW eastbound off-ramp intersection during the weekday p.m. peak hour results in all movements operating within capacity, notwithstanding the inclusion of site-generated traffic.

Under the 2036 and 2041 future total conditions, increasing the signal cycle length during the weekday p.m. peak hour continues to be effective in improving operations at the Erin Mills Parkway at North Sheridan Way/QEW westbound off-ramp intersection, such that all movements are projected to operate within capacity.

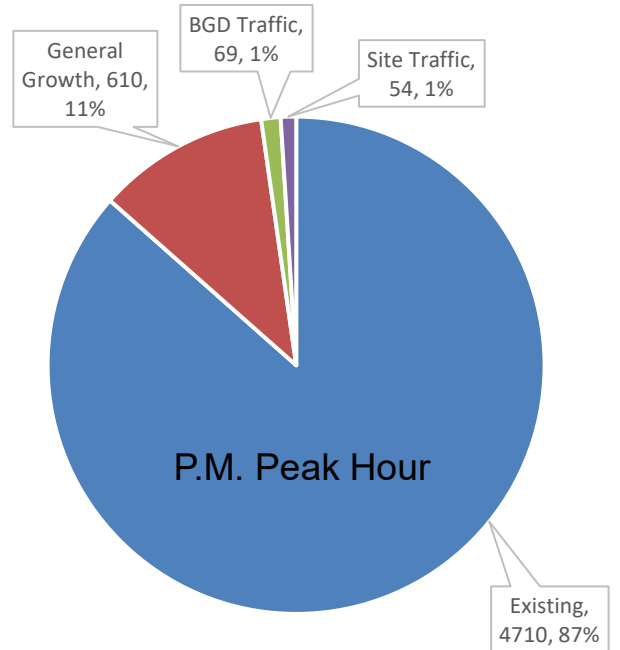
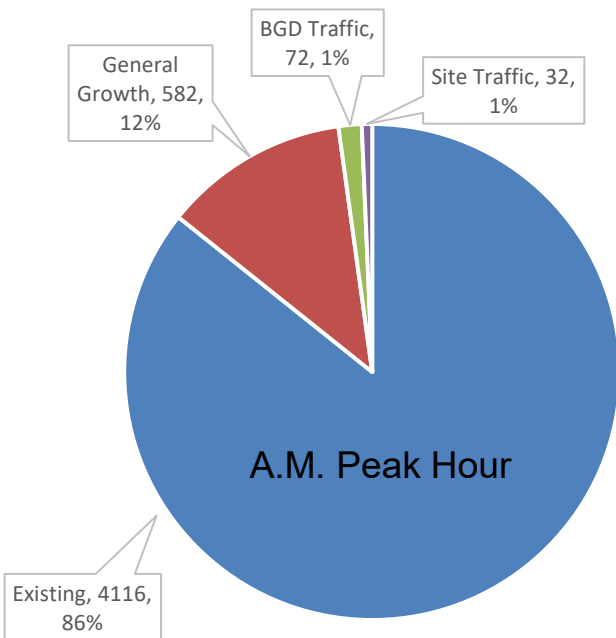
At the QEW eastbound off-ramp intersection, the longer signal cycle length also results in improved operational performance; while some movements continue to operate over capacity in the longer-term horizons, this change improves overall movement efficiency, with most critical movements operating at or near capacity during the weekday p.m. peak hour.

The above assessment indicates that the projected intersection capacity constraints under the future background and future total conditions can be mitigated by potential improvements. It is reiterated that the site-generated traffic represents a relatively small proportion of the overall future traffic volumes, and the forecasted capacity deficiencies are primarily attributable to general background traffic growth rather than the proposed development. Therefore, these improvements should not be tied to the proposed development.

Erin Mills Parkway at South Sheridan Way / QEW Eastbound Off-Ramp



Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp



5.3.3 Queuing Assessment

Queuing analyses for the study intersections were also assessed using Synchro 12 software. **Table 5-2** summarizes the projected 95th percentile queues for the exclusive left- and right-turn lanes under 2041 future background conditions. The movements with 95th percentile queues forecasted to exceed the available storage lengths are highlighted in red and the 50th percentile queues are also listed for these movements. The detailed queuing reports are provided in **Appendix J**.

Table 5-2 2041 Future Total Queuing Analysis

Intersection		Movement (Storage Length) ¹	95 th Percentile Queue (50 th Percentile Queue)	
			A.M. Peak Hour	P.M. Peak Hour
Erin Mills Parkway at Leanne Boulevard / Fowler Drive		EB-L (95 m)	44 m	54 m
		WB-L (50 m)	86 m (63 m)	74 m (50 m)
		WB-R (35 m)	16 m	14 m
		NB-L (100 m)	2 m	5 m
		NB-R (50 m)	1 m	0 m
		SB-L (115 m)	14 m	30 m
		SB-R (60 m)	17 m	9 m
Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp	No Improvement	EB-L (60 m)	20 m	66 (42) m
		WB-L (200 m)	160 m	123 m
		NB-L (70 m)	50 m	10 m
	With Improvement	EB-L (60 m)	N/A	74 m (51 m)
		WB-L (200 m)		154 m
		NB-L (70 m)		24 m
Southdown Road at South Sheridan Way / QEW Eastbound Off-Ramp	No Improvement	EB-R (85 m)	18 m	27 m
		WB-L (195 m)	25 m	18 m
		NB-R (55 m)	0 m	2 m
		SB-L (110 m)	59 m	140 m (93 m)
	With Improvement	EB-R (85 m)	N/A	30 m
		WB-L (195 m)		20 m
		NB-R (55 m)		4 m
		SB-L (110 m)		187 m (124 m)

¹ Measured using Google Earth; values rounded to the nearest five metres.

Queueing results at the study intersections under the future total conditions are similar to those under the future background conditions. Under the 2041 future total conditions, the majority of the forecast 95th percentile queues are expected to be accommodated within the available lane storage during both the weekday a.m. and p.m. peak hours. Some queues only occasionally exceed the storage as the average queues are contained within the storage length, except for the westbound left turn at Erin Mills Parkway at Leanne Boulevard/Fowler Drive during the a.m. peak hour. Similar to future background conditions, the average queues at this movement exceed available storage by 13 m during the a.m. peak hour.

Under the improvement scenarios, the southbound left-turn movement at the South Sheridan Way/QEW eastbound off-ramp intersection is projected to exceed the available storage by approximately 14 m during the weekday p.m. peak hour.

Overall, the comparison between the future background and future total queueing results indicates that the inclusion of site-generated traffic does not materially alter queueing conditions at the study intersections.

5.4 Neighbourhood Traffic Management Plan

As discussed in Section 1, the proposed development involves the redevelopment of existing land uses currently located on the subject site. Under the weekday p.m. peak hour, the existing land uses generate equal or greater traffic volumes compared to the proposed development. Specifically, the existing site generates approximately 88 inbound and 67 outbound trips, whereas the proposed development is forecast to generate 88 inbound and 57 outbound trips during the p.m. peak hour, as illustrated in **Figure 4-2** and **Figure 4-3**, respectively.

Given that the proposed site-generated traffic volumes are comparable to the existing site traffic being removed from the road network, the addition of site traffic does not result in a significant impact on overall traffic operations. Accordingly, any increases in traffic volumes observed on the study road network under future total conditions are attributed primarily to general background traffic growth, rather than incremental traffic generated by the proposed development, as discussed further in Section 5.3.2.

Furthermore, the functional classifications of local roads and minor collector roads in the vicinity of the subject site remain unchanged, as the proposed development does not introduce traffic volumes exceeding the established 5% increase threshold. Based on this assessment, a Neighbourhood Traffic Management Plan is not required for the proposed development.

5.5 Community Impact

As mentioned in Section 5.4, the proposed development is anticipated to have a minimal impact on traffic operations within the study network when compared to the future background conditions. All future horizon years reflect increasing traffic volumes attributable to the application of background growth rates provided by the municipalities, as shown in Table 3-1.

The resulting total traffic growth along the major roadways within the study area is summarized in **Table 5-3**. The greatest increase in traffic volumes is forecast at the QEW off-ramps across all horizon years. As a result, mitigation measures aimed at addressing operational constraints at the QEW interchange intersections have been identified and are discussed in Section 3.6.2. Accordingly, no community-level traffic impacts are anticipated as a result of the proposed development, and the recommended mitigation measures are intended to address general background traffic growth rather than site-generated traffic.

Table 5-3 Total Traffic Growth from Applied Growth Rates

Roadways	Total Traffic Growth % per Horizon					
	A.M. Peak Hour			P.M. Peak Hour		
	2031	2036	2041	2031	2036	2041
QEW Off-Ramps	10%	20%	30%	10%	20%	30%
North and South Sheridan Road	8%	15%	23%	7%	11%	15%
Erin Mills Parkway	3%	5%	8%	3%	5%	8%
Leanne Boulevard at Fowler Drive	5%	8%	11%	3%	5%	8%

6 Site Plan Review

6.1 Loading Supply Assessment

WSP reviewed the loading requirements for the proposed development based on the applicable standards outlined in Section 3.1.4 under the City of Mississauga Zoning By-law 0225-2007. Based on the By-law, one loading space per apartment building containing a minimum of 30 dwelling units shall be required. Therefore, the proposed building is required to provide one loading space. The proposed loading supply of one space at the proposed building satisfies the By-law requirements.

6.2 Site Dimensions

The City of Mississauga Zoning By-law 0225-2007 requires parking spaces with a parking angle exceeding 15° to be a minimum of 2.6 metres in width and 5.2 metres in length, and parking spaces with an angle not exceeding 15° shall have a minimum width of 2.6 metres and a minimum length of 6.7 metres. Type 'A' accessible parking spaces require a minimum width of 3.4 metres and Type 'B' accessible parking spaces require a minimum width of 2.4 metres. All accessible parking spaces require a minimum length of 5.2 metres and a 1.5-metre-wide access aisle. Finally, the driving aisle needs a minimum width of 7.0 metres (two-way) and 5.5 m (one-way).

The proposed ground floor parking dimensions are shown in **Figure 6-1**. The underground level parking dimensions are shown in **Figure 6-2** and **Figure 6-3**.

The proposed parking spaces satisfy the By-law dimension requirements.

The proposed driving aisle widths do not meet the minimum requirement and are proposed to be a minimum of 6.0 metres (two-way) and 4.5 m (one-way). This is consistent with the City of Toronto ZBL 569-2013. Also, design vehicles can circulate the site without issues, as shown in **Section 6.4**.

As per Zoning By-law 0225-2007, loading spaces are required to have a minimum width of 3.5 metres and a minimum length of 9.0 metres. The proposed loading space in the proposed building satisfies the loading dimension requirements, as shown in **Figure 6-1**.

6.3 Driveway Review

6.3.1 Sight Distance

A sight distance review was completed at the driveways on Leanne Boulevard. Leanne Boulevard has a posted speed limit of 50 km/h, and the design speed of 60 km/h was assumed. According to TAC Geometric Design Guide Table 9.9.4, for a design speed of 60 km/h, a minimum stopping sight distance of 85 m and a minimum left turn decision sight distance of 130 m are required.

The sightline review at the driveways is shown in **Figure 6-4**, **Figure 6-5**, and **Figure 6-6**. As shown in the figures, three units in Block A block the sightlines for the following:

- Stopping sight distance for the south driveway and Block C driveway
- Left turn decision site distance at the south driveway, Block C driveway and Block E driveway

According to TAC Geometric Design Guide Table 9.9.6, for a design speed of 60 km/h, a minimum right turn decision sight distance of 110 m is required. As shown in **Figure 6-5**, the third townhouse would not block the right turn decision sight distance from Block C. Therefore, by prohibiting the outbound left turns from Block C, two instead of three townhomes would block sightlines.

It is our understanding that two units in Block A will be modified or removed in subsequent submissions to avoid blocking the sightlines. Outbound left turns will be prohibited from the Block C driveway.

6.3.2 Corner Clearance

Based on TAC Figure 8.8.2, the suggested minimum corner clearances are:

- 70 m from a traffic signal along an arterial road
- 55 m from a traffic signal along a collector road
- 25 m from a stop control on a collector road

The provided corner clearances are shown in **Figure 6-7**. The figure show that the corner clearances meet the distances suggested in TAC.

6.3.3 Clear Throat

Based on TAC the suggested minimum clear throat length for major driveways providing access to apartments with more than 200 units is 25 m on a collector road and 40 m on an arterial road.

The provided clear throat lengths are shown in **Figure 6-8**. The figure show that the clear throat length for the north driveway on Leanne Boulevard (8 m) is less than the suggested 25 m from TAC and the clear throat length for the Erin Mills Parkway driveway is 37.3 m, which is less than the suggested 40 m from TAC.

WSP believes that the suggested corner clearances from TAC are excessive and frequently not achieved within an urban context due to site constraints. For example, the provided clear throat lengths on the existing site are approximately 0 m for the Erin Mills Parkway driveway and 9 m for the Leanne Boulevard south driveway. The City of Toronto Access Management Guidelines for Development in Metro Toronto suggests a minimum clear throat length of 6 m for driveways providing direct access to parking aisles with less than 50 parking spaces. The provided clear throat lengths meet the distances suggested in the City of Toronto Access Management Guidelines for Development in Metro Toronto.

6.3.4 Driveway Spacing

Based on TAC Figure 3.9.2, the suggested minimum spacing between residential driveways is 1.0 m. The provided driveway spacing is shown in **Figure 6-9**. The spacing between

driveways on Leanne Boulevard ranges from 1.0 m to 90.8 m. The spacing between the site driveways and adjacent driveways on other properties range from 20.6 m to 131.85 m. The spacing between driveways meet the suggested spacing from TAC.

Furthermore, based on TAC Table 8.9.2, the suggested maximum number of driveways for a property frontage of 150 m or more is 4 or more. The property frontage on Leanne Boulevard exceeds 200 m and the proposed number of driveways on Leanne Boulevard is 4, which meets the TAC suggested maximum number of driveways.

6.3.5 Driveway Conflict Review

Vehicles exiting the Block A driveway and turning left would not conflict with vehicles exiting Bosack Court and turning left. Furthermore, based on TAC Section 8.9.9 for low volume roadways, such as local roads, the special relationship between driveways on opposite sides of the road is not necessarily a design consideration. Therefore, the offset between the Block A driveway and Bosack Court is not problematic.

6.4 Site Circulation

The AutoTURN 11.0 turning template software was used to simulate the circulation of the required design vehicles, as detailed below.

6.4.1 Passenger Vehicle Circulation

WSP completed a review of the proposed site circulation for passenger vehicles, using a P-Full vehicle (5.05 metres long). The passenger vehicle circulation review is illustrated in **Figure 6-11** to **Figure 6-14**. The review shows that there are no projected conflicts for passenger vehicle circulation on the ground floor and underground parking levels. Convex mirrors are recommended to be installed at key locations identified in **Figure 6-22** and **Figure 6-23**.

6.4.2 Loading Operation

WSP completed a review of the proposed site circulation for a loading vehicle. A medium single unit (MSU) loading truck (10.0 metres long, per TAC 2017 standards) was used as illustrated in **Figure 6-15** and **Figure 6-16**. The review shows that the loading truck can safely access and egress the proposed loading spaces with no conflicts.

To avoid potential conflicts between loading trucks and passenger vehicles exiting the parking garage and one-way drive aisle at the mid-rise building during loading operation, WSP recommends a flag person.

6.4.3 Waste Collection

WSP completed a review of the proposed site circulation for a waste collection vehicle. A Peel Region waste collection vehicle (11.93 metres long) was used as illustrated in **Figure 6-17** and **Figure 6-18**. The review shows that the waste collection vehicle can safely access and egress the proposed loading space with no conflicts.

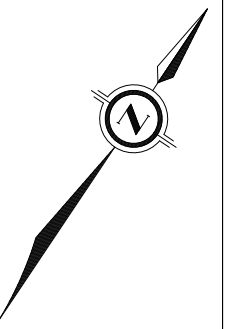
To avoid potential conflicts between garbage trucks and passenger vehicles exiting the parking garage and one-way drive aisle at the mid-rise building during waste collection operation, WSP recommends a flag person.

6.4.4 Fire Truck

As shown in **Figure 6-19** and **Figure 6-20**, a standard City of Mississauga fire truck (12.8 metres long) can enter and exit the site without issues and the reversing distance is less than 90 m.

6.5 Pavement Marking and Signage Plan

The proposed pavement marking and signage plan for the site on the ground level, P1 and P2 are shown in **Figure 6-21**, **Figure 6-22** and **Figure 6-23**.



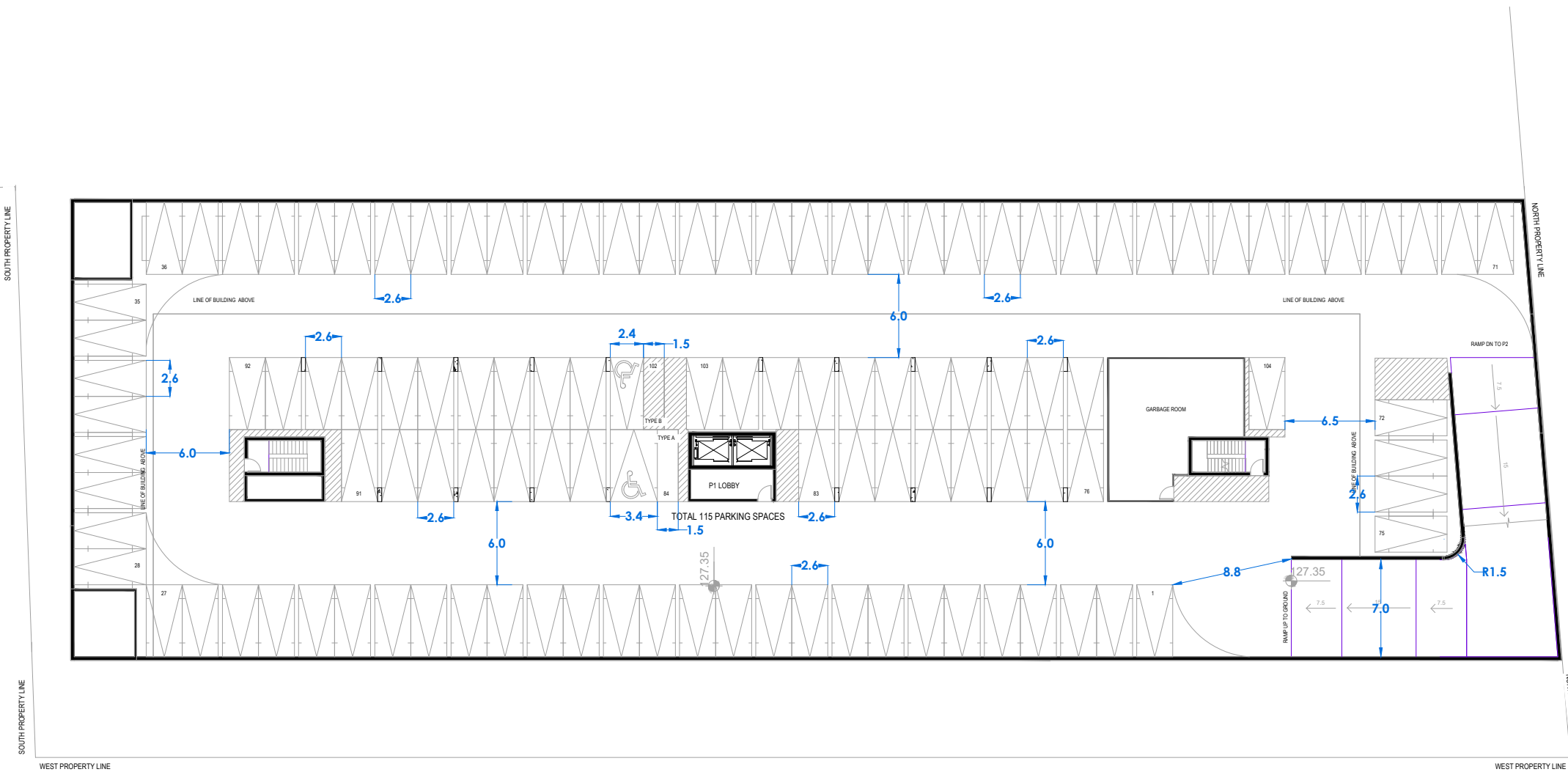
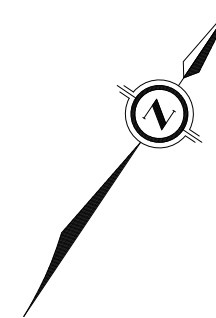
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Date Site Plan Received: 2026-03-30

Scale: 1:800



Figure 6-1
Dimensions (Ground Floor)
2155 Leanne Boulevard TIS



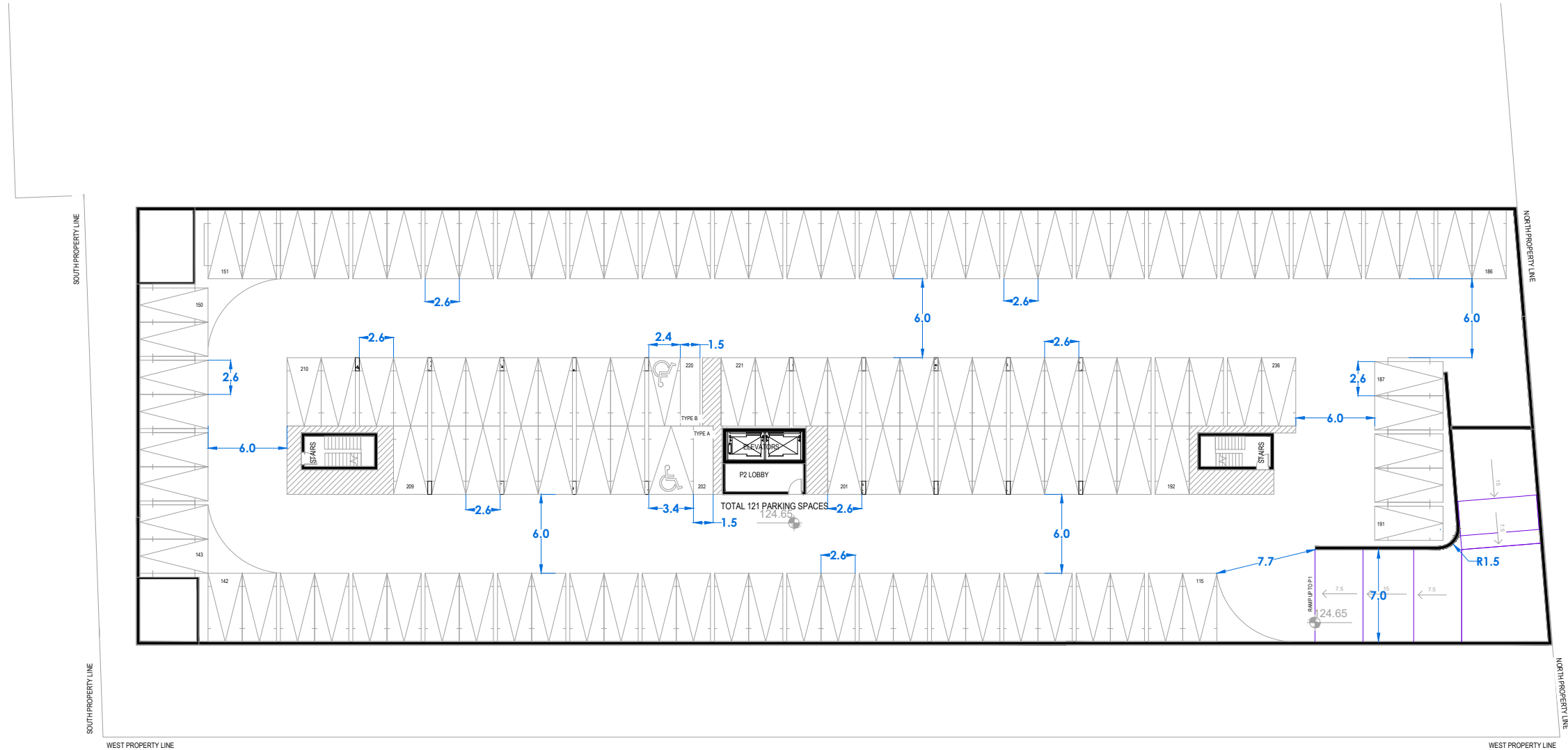
Date Site Plan Received: 2026-03-30

Scale: 1:400



Figure 6-2
Dimensions (P1 Level)
2155 Leanne Boulevard TIS

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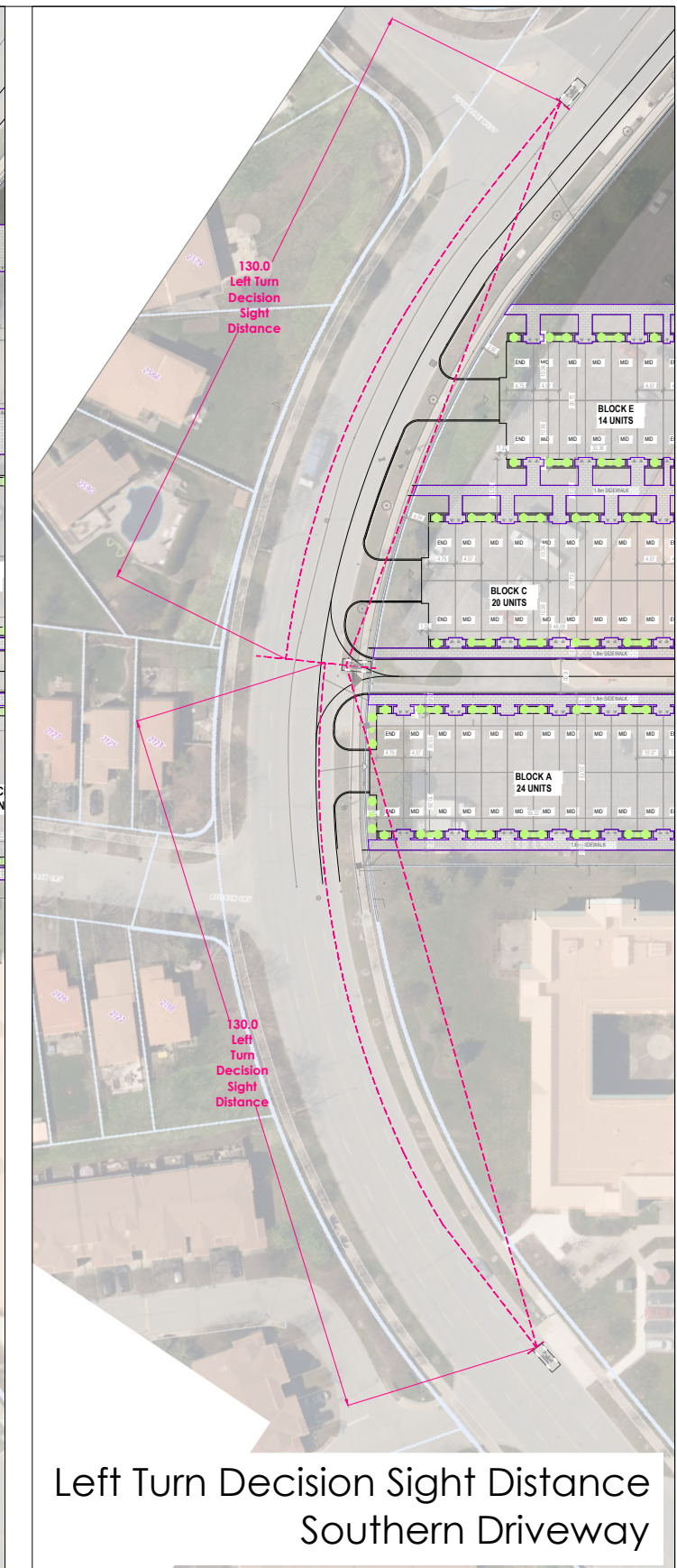
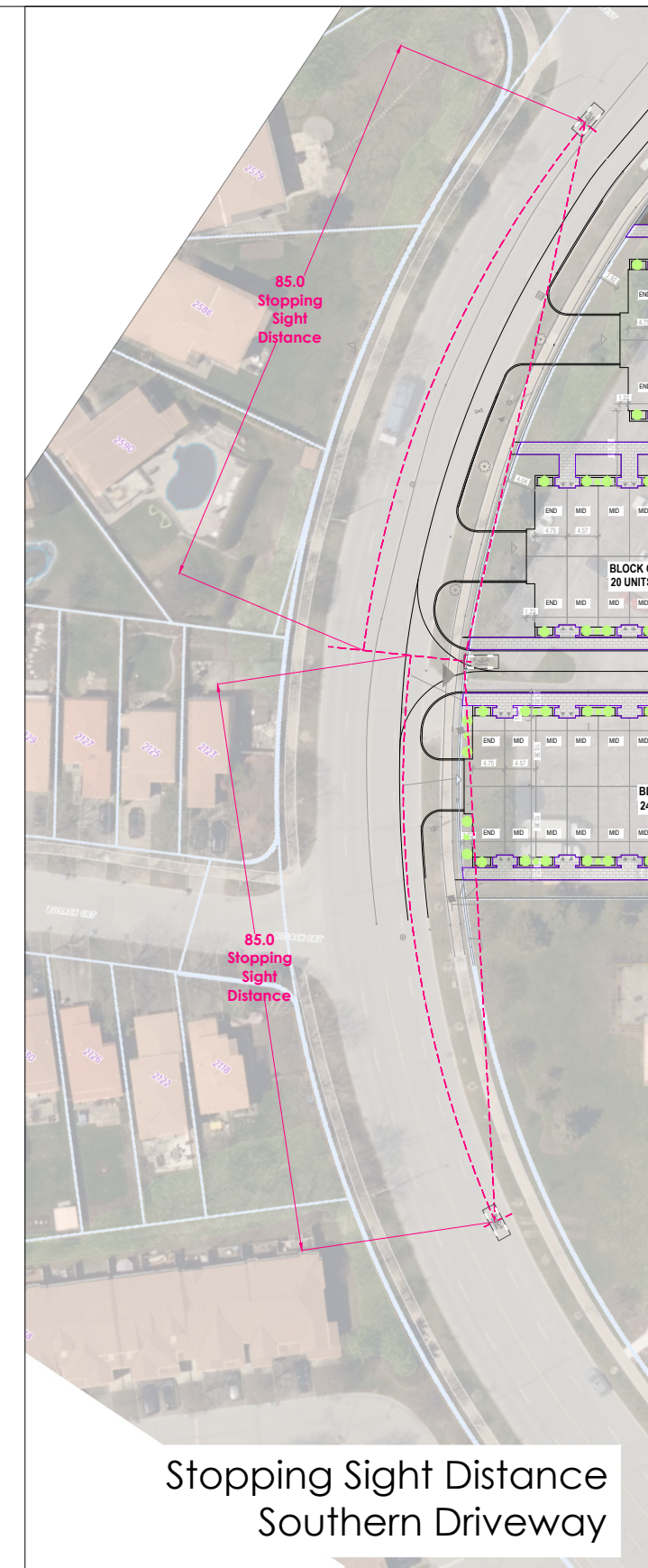
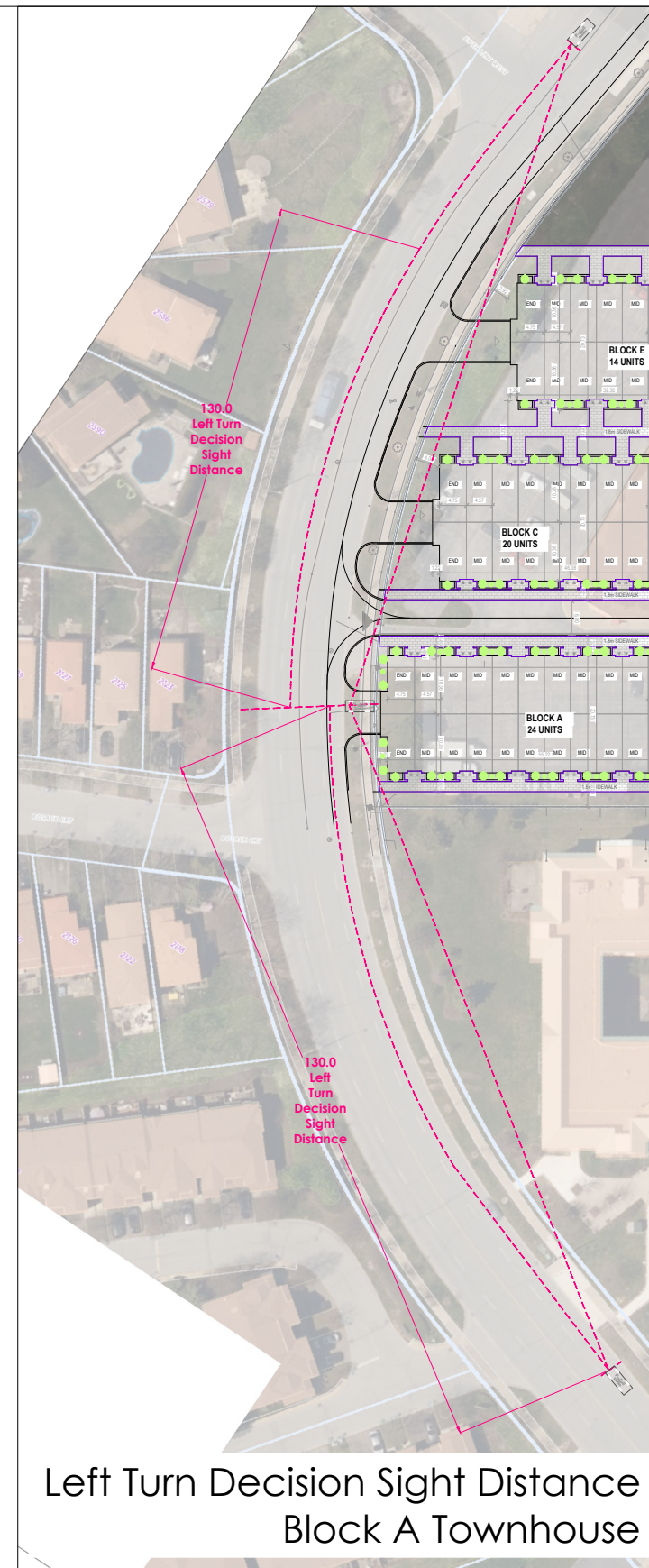
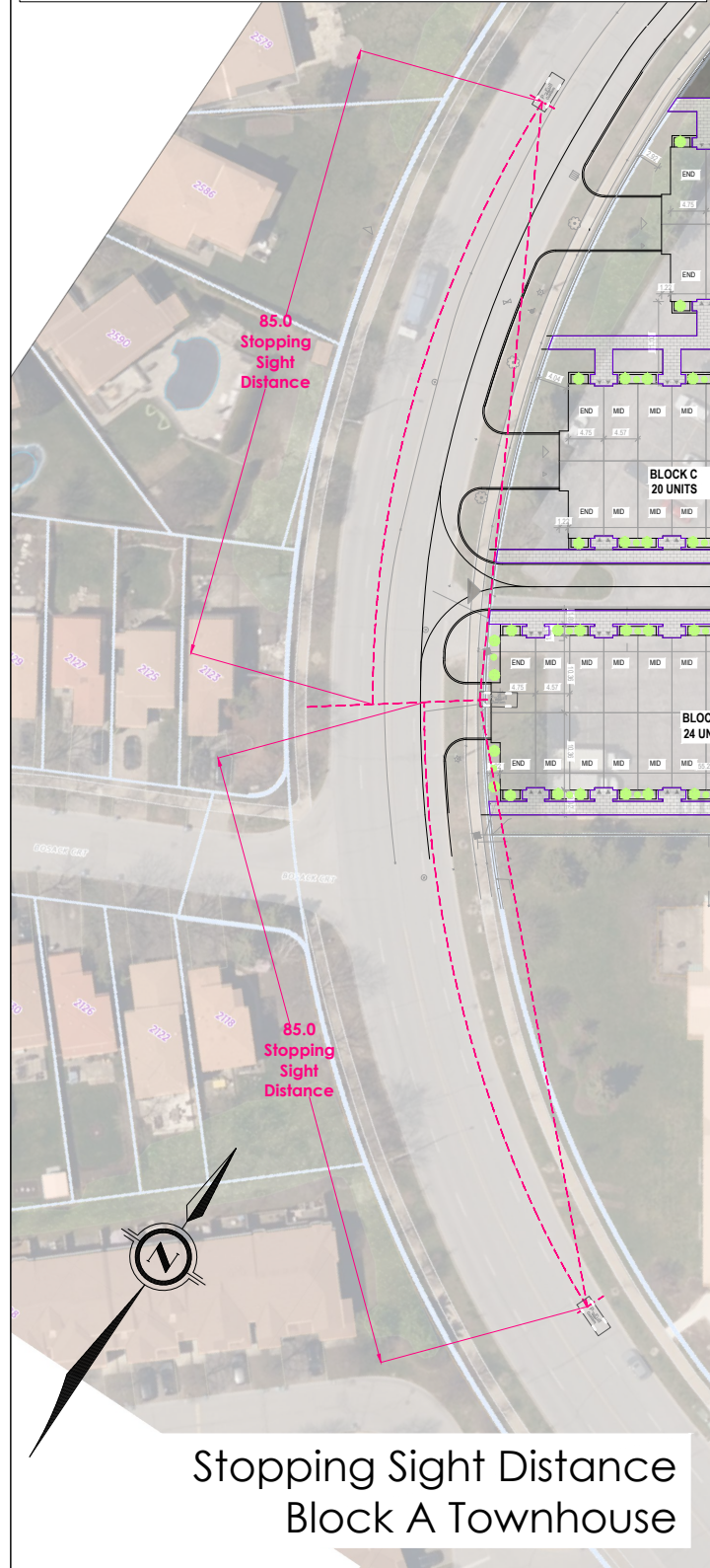
Date Site Plan Received: 2026-03-30

Scale: 1:400



Figure 6-3
Dimensions (P2 Level)
2155 Leanne Boulevard TIS

Leanne Blvd has a posted speed limit of 50 km/h. It is assumed that the design speed will be 60 km/h along Leanne Blvd. According to TAC Geometric Design Guide Table 9.9.4, for a design speed of 50 km/h, a minimum stopping sight distance of 85 m and a minimum left turn decision sight distance of 130 m is required.



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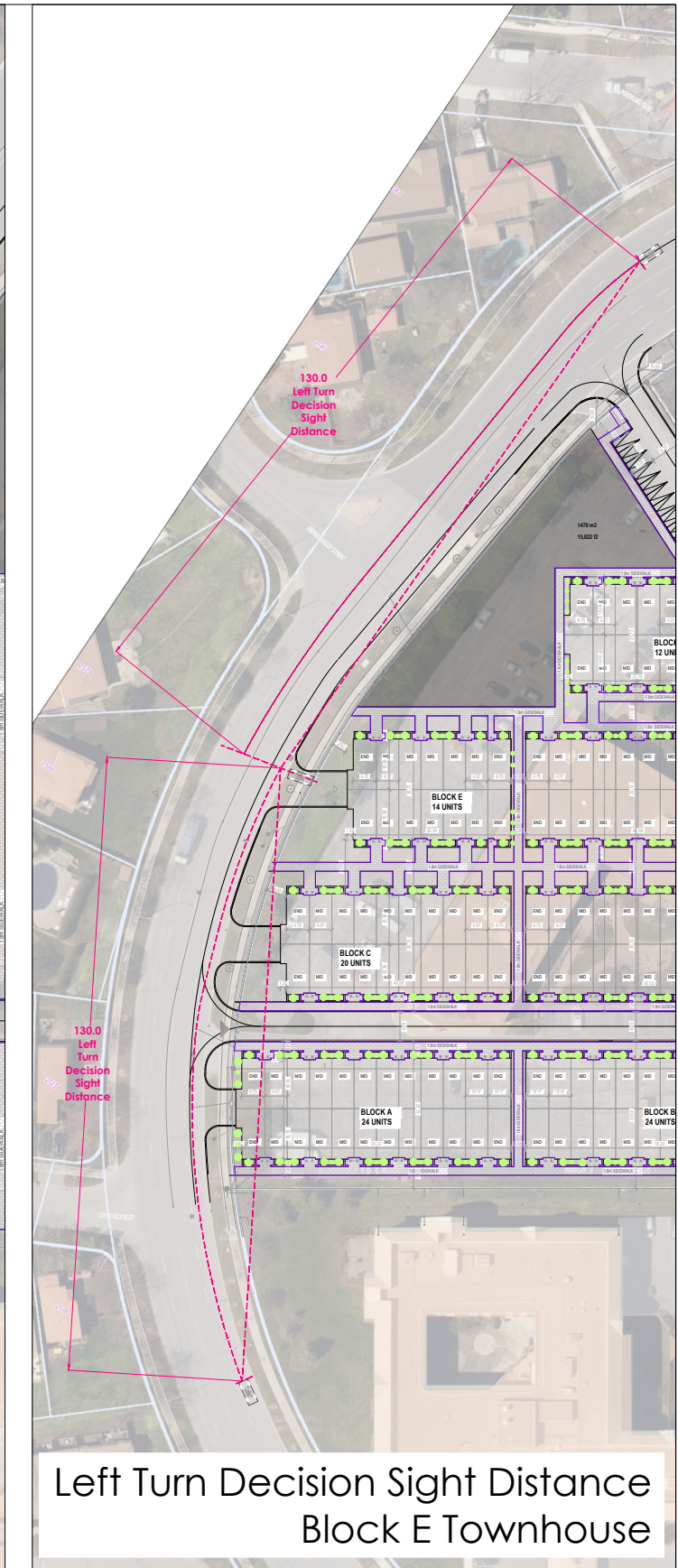
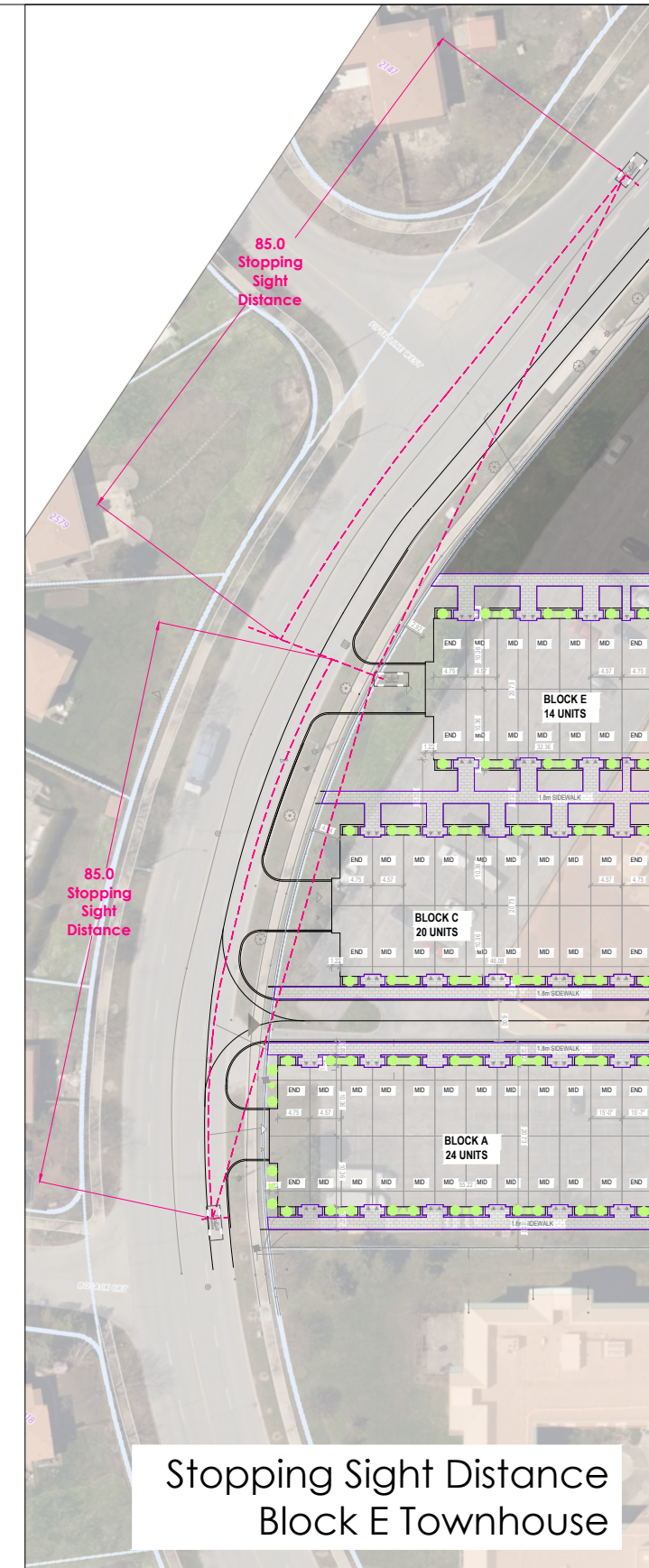
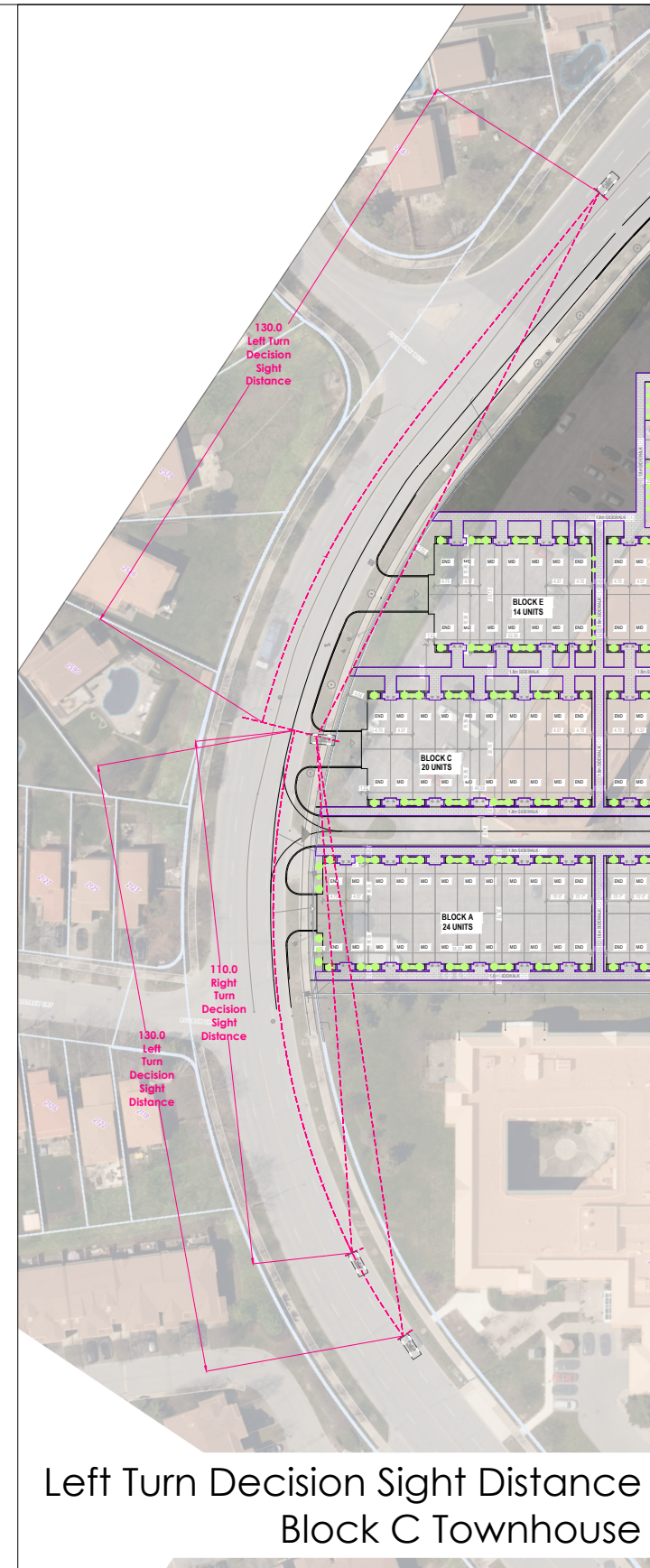
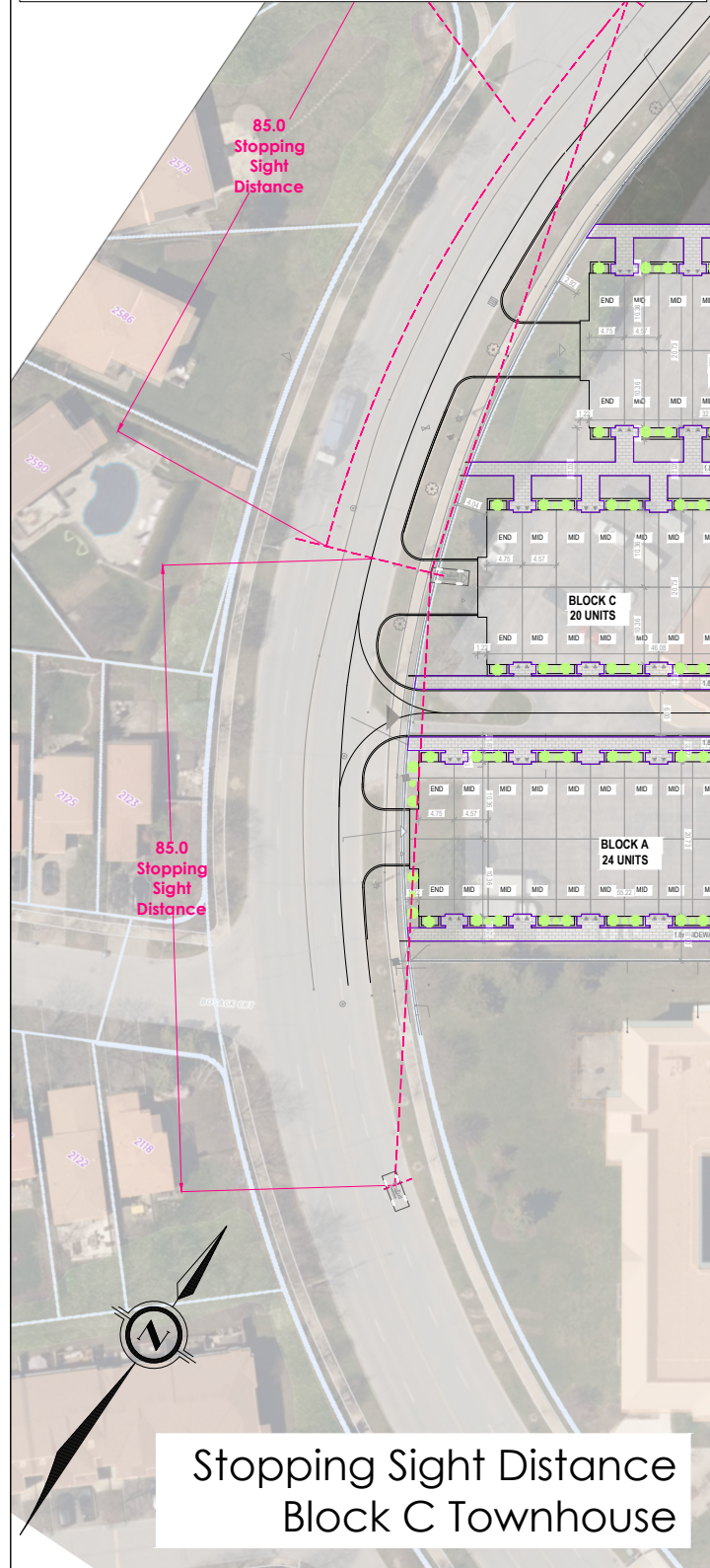
Date Site Plan Received: 2026-03-30

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Figure 6-4
Sightline Review (Block A Townhouse Garage Entrance and Southern Driveway)
2155 Leanne Boulevard TIS

Leanne Blvd has a posted speed limit of 50 km/h. It is assumed that the design speed will be 60 km/h along Leanne Blvd. According to TAC Geometric Design Guide Table 9.9.4, for a design speed of 50 km/h, a minimum stopping sight distance of 85 m and a minimum left turn decision sight distance of 130 m is required.



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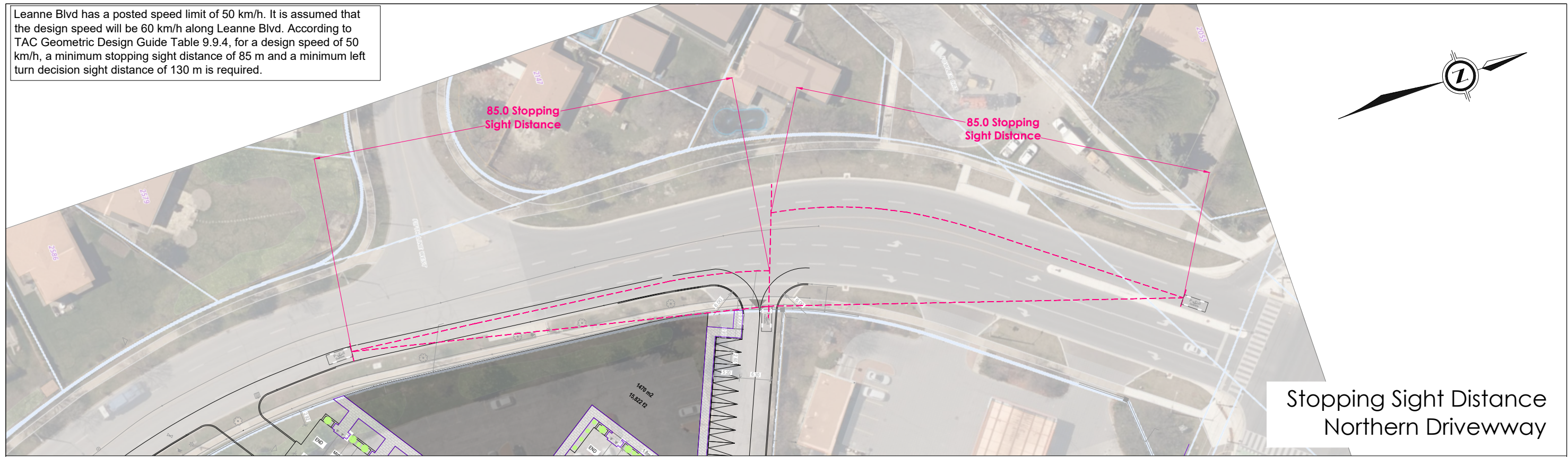
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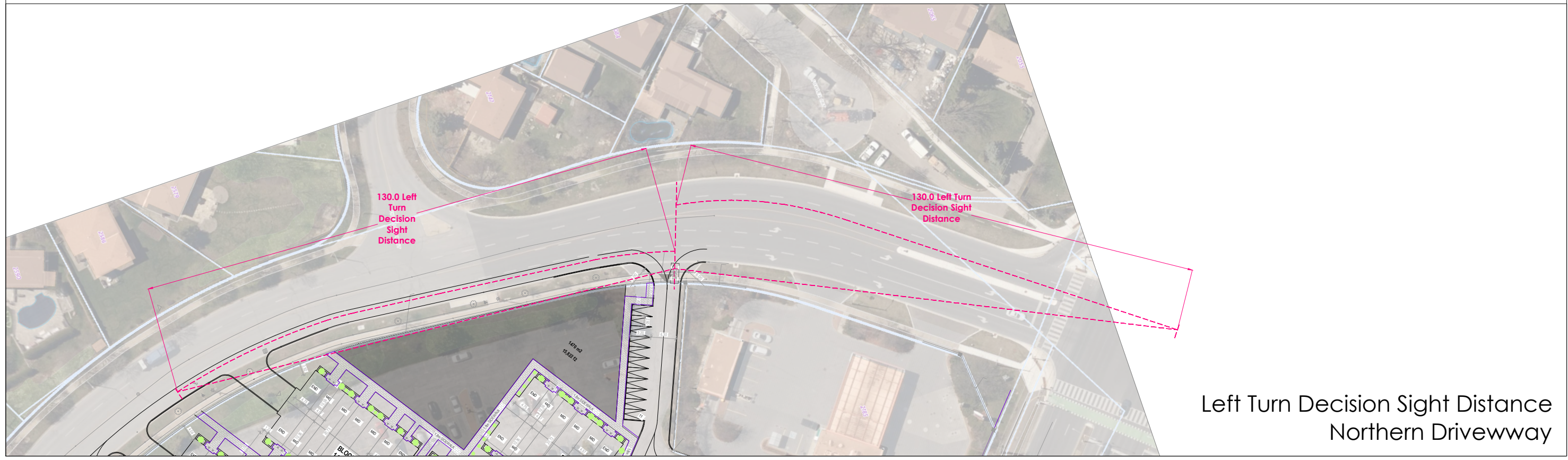


Figure 6-5
Sightline Review (Block C and Block E Townhouse Garage Entrance)
2155 Leanne Boulevard TIS

Leanne Blvd has a posted speed limit of 50 km/h. It is assumed that the design speed will be 60 km/h along Leanne Blvd. According to TAC Geometric Design Guide Table 9.9.4, for a design speed of 50 km/h, a minimum stopping sight distance of 85 m and a minimum left turn decision sight distance of 130 m is required.



Stopping Sight Distance
Northern Driveway



Left Turn Decision Sight Distance
Northern Driveway

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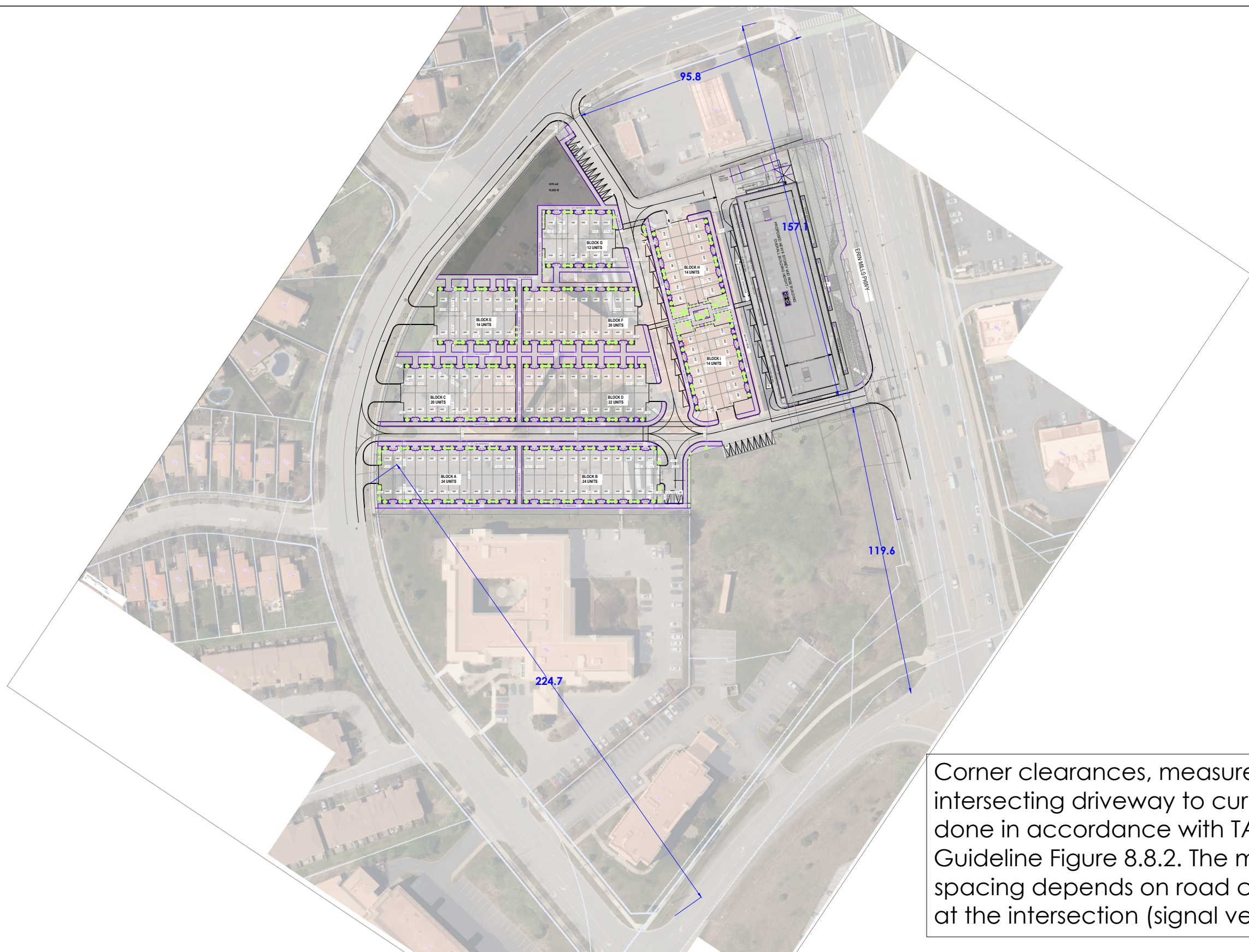
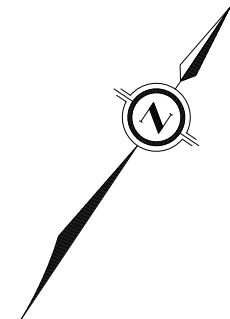
Date Site Plan Received: 2026-03-30

Scale: 1:800/1:1000



Figure 6-6
Sightline Review (Northern Driveway)
2155 Leanne Boulevard TIS

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Corner clearances, measured from curb of intersecting driveway to curb of intersecting street, is done in accordance with TAC Geometric Design Guideline Figure 8.8.2. The minimum required spacing depends on road classification and control at the intersection (signal versus stop sign)

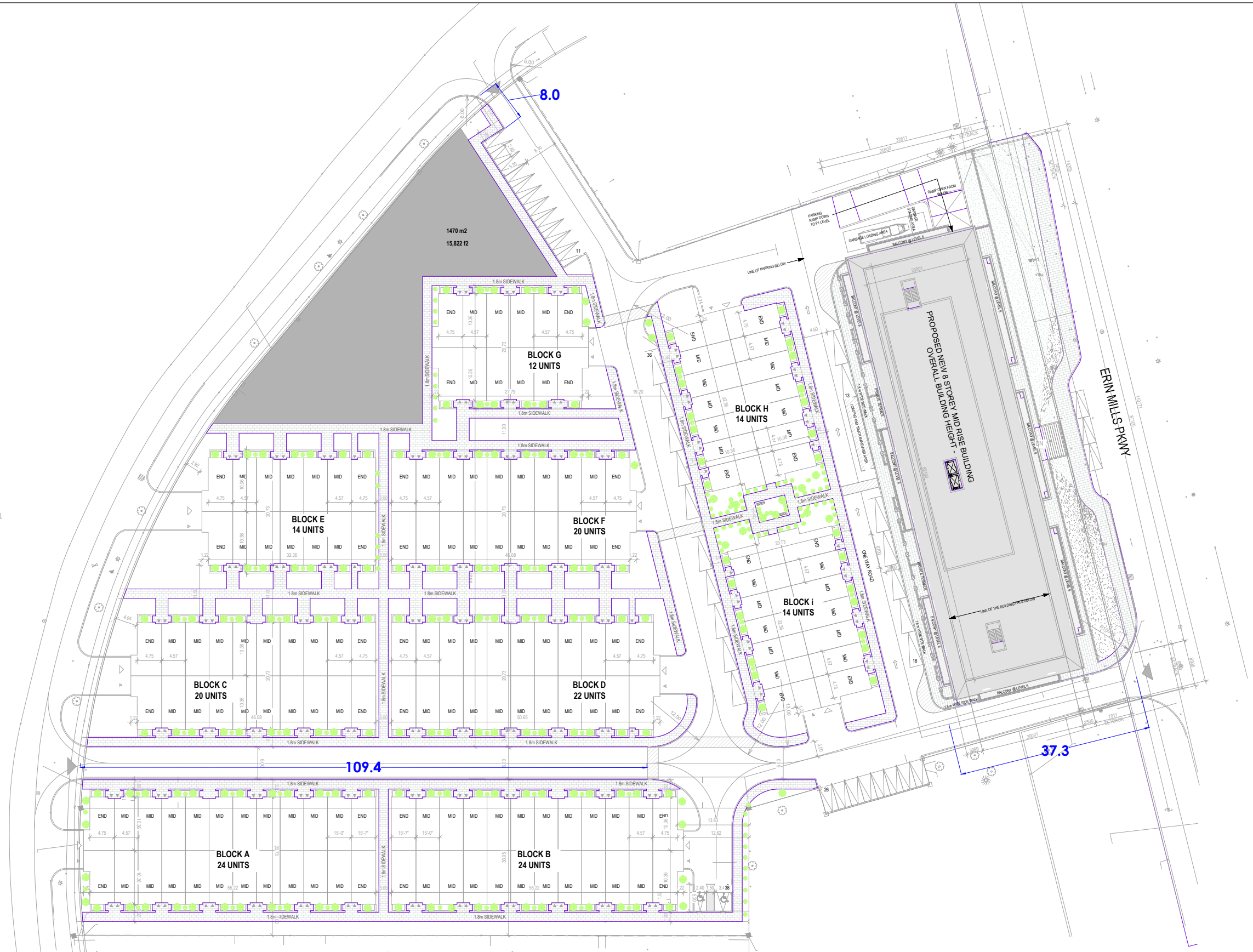
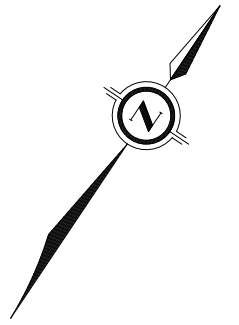
Date Site Plan Received: 2026-03-30

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Figure 6-7
Corner Clearance Review
2155 Leanne Boulevard TIS

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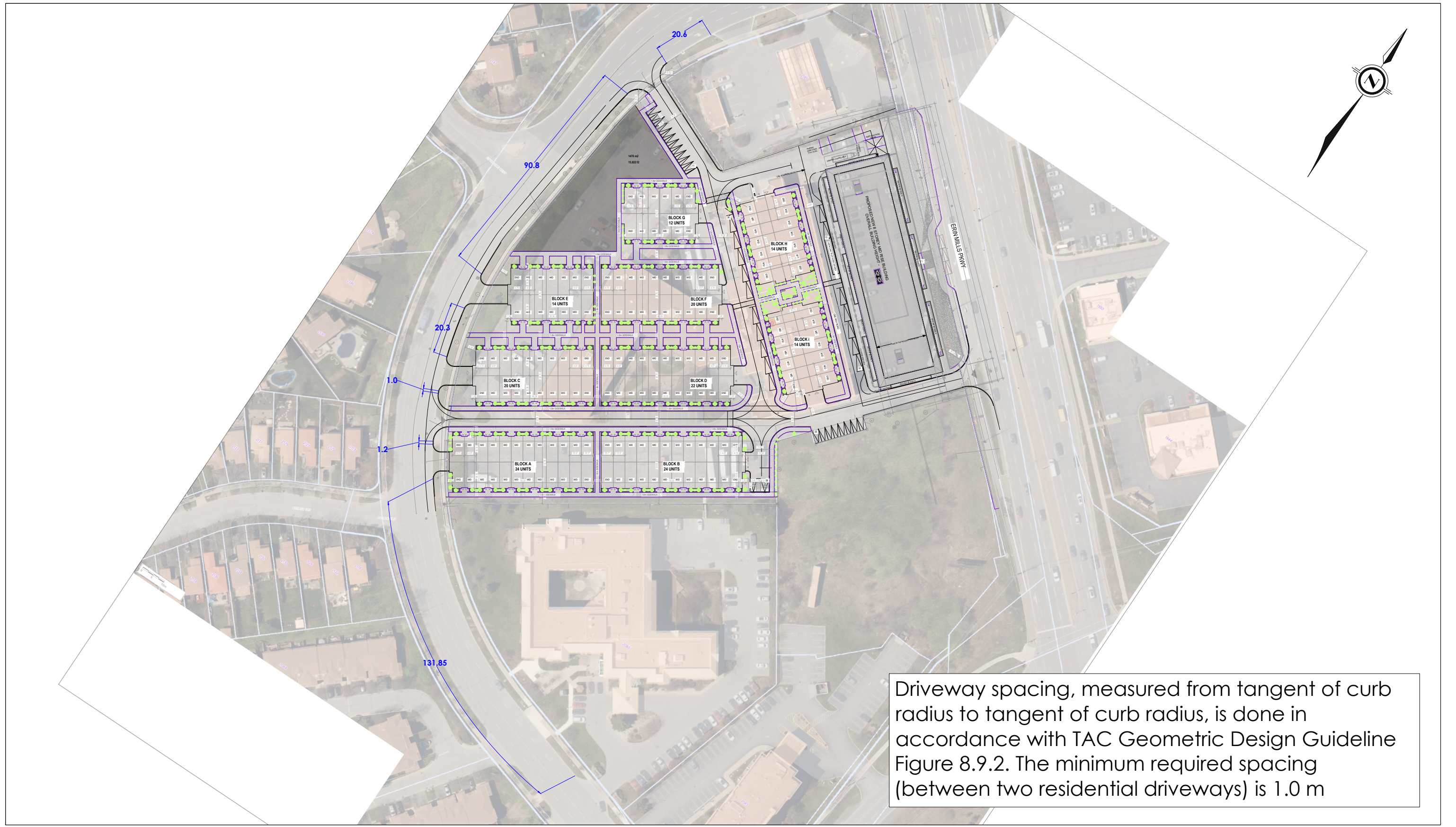
Date Site Plan Received: 2026-03-30

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Figure 6-8
Clear Throat Review
2155 Leanne Boulevard TIS

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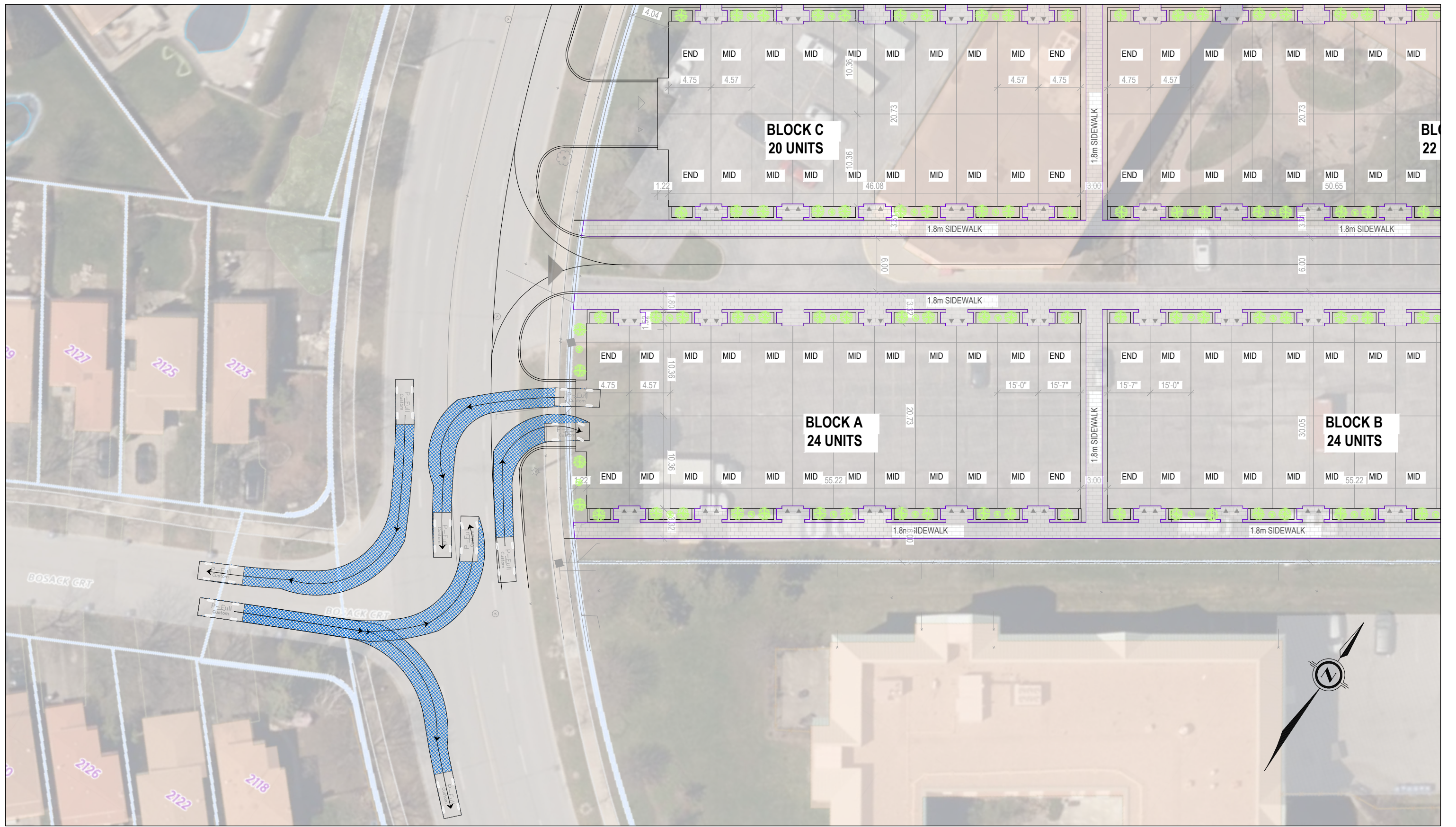


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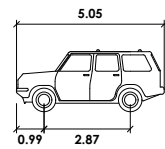


Figure 6-9
 Driveway Spacing Review
 2155 Leanne Boulevard TIS



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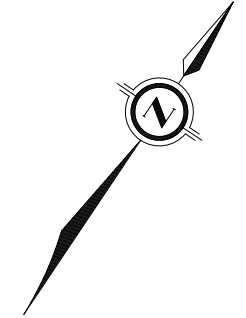
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P-Full	meters
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Track	: 1.96
Lock to Lock Time	: 6.0
Steering Angle	: 33.9

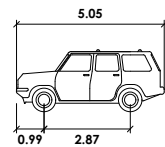
Figure 6-10
 Driveway Conflict Review (With Bosack Court)
 2155 Leanne Boulevard TIS

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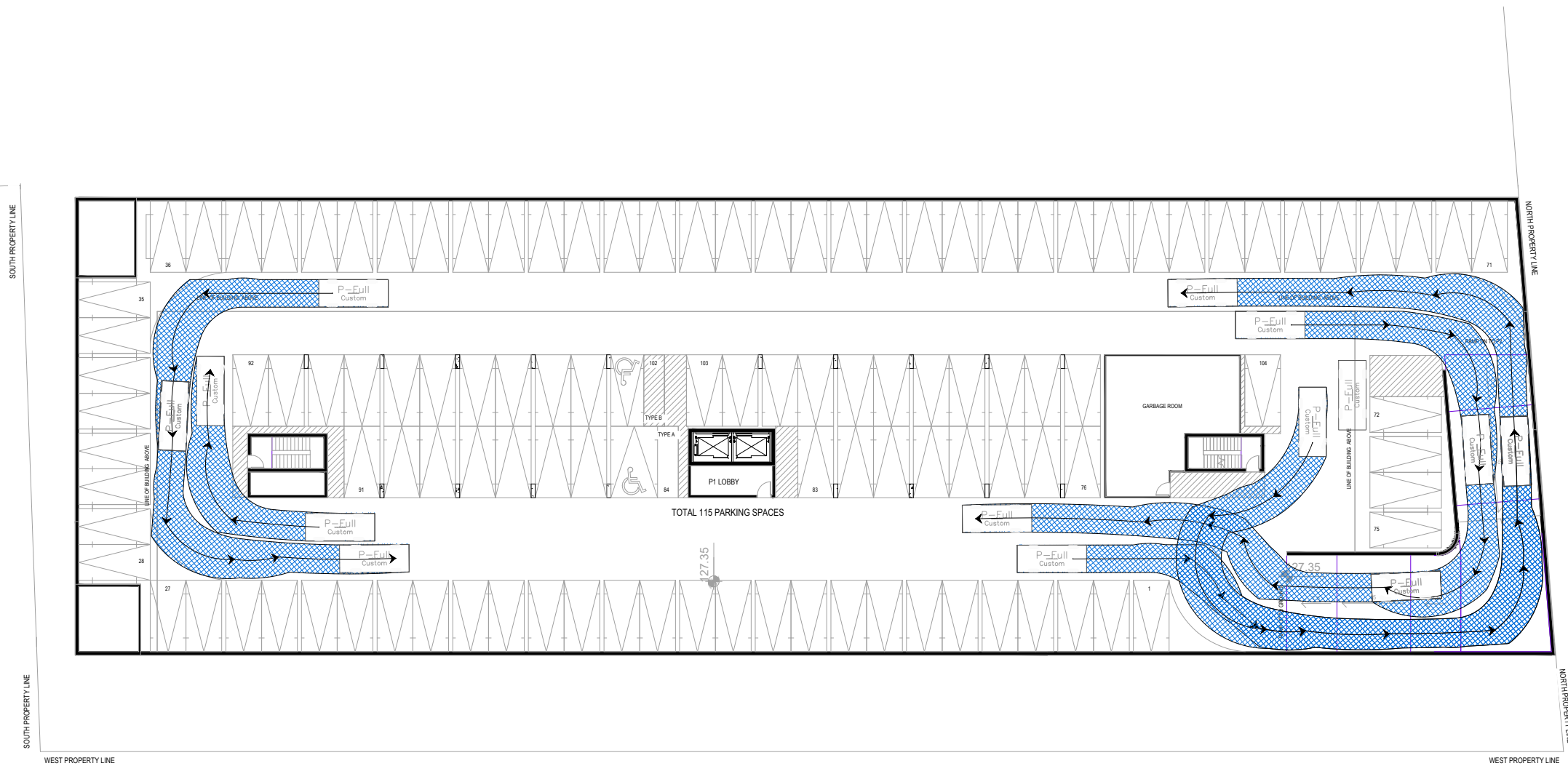
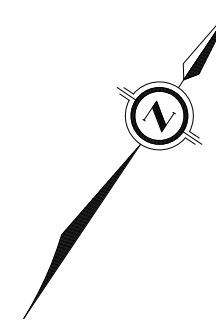
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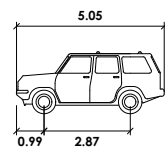
P-Full	units	meters
Width	:	2.00
Track	:	1.96
Lock to Lock Time	:	6.0
Steering Angle	:	33.9

Figure 6-11
Passenger Car (P-Full) Manoeuvres (Ground Level)
2155 Leanne Boulevard TIS



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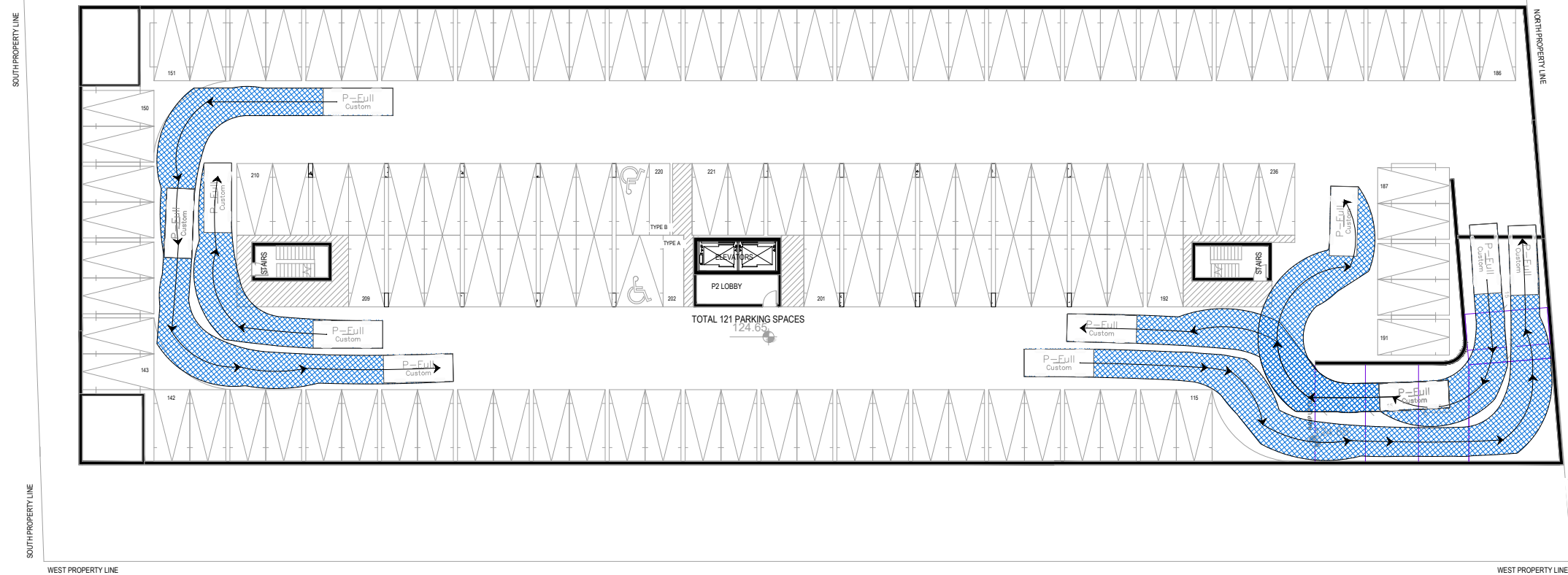
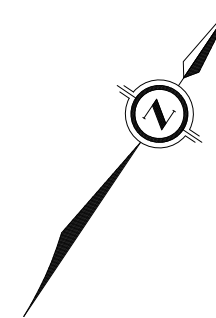
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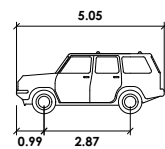
Figure 6-12
 Passenger Car (P-Full) Manoeuvres (P1 Level)
 2155 Leanne Boulevard TIS

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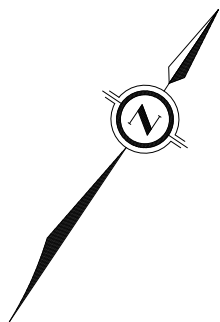
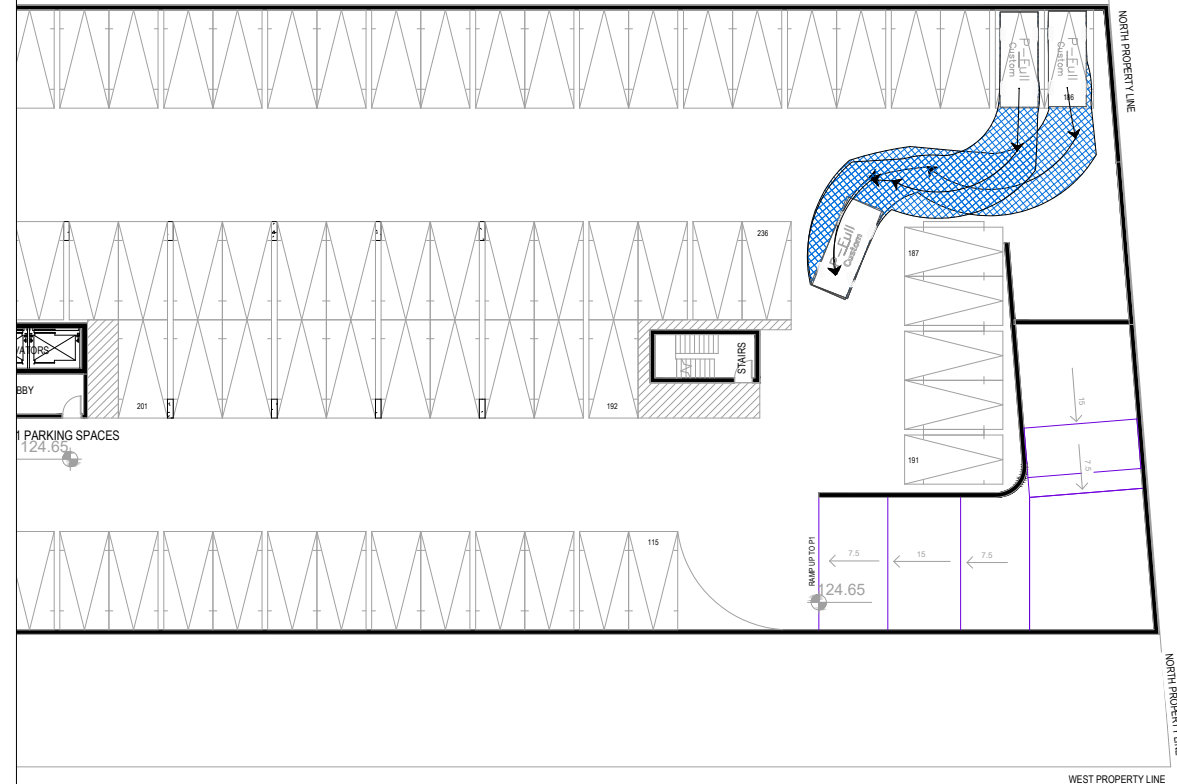
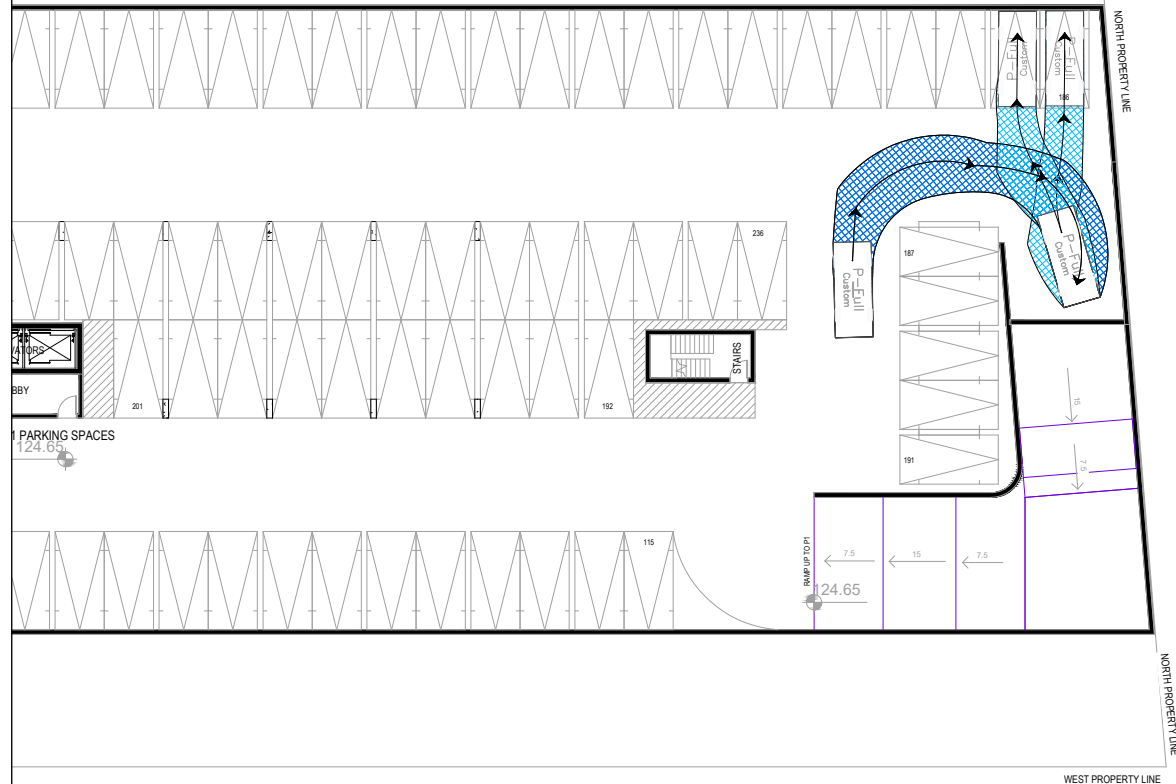


P-Full	parameters	values
	Width	: 2.00
	Track	: 1.96
	Lock to Lock Time	: 6.0
	Steering Angle	: 33.9

Figure 6-13
 Passenger Car (P-Full) Manoeuvres (P2 Level)
 2155 Leanne Boulevard TIS

ENTERING

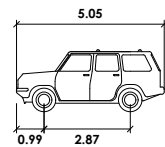
EXITING



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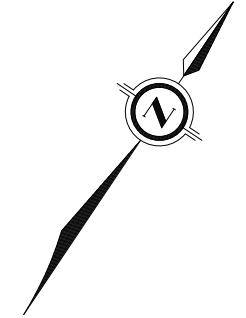
Date Site Plan Received: 2026-03-30

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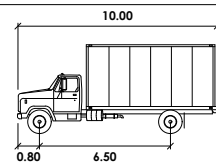
P-Full	units
Width	: 2.00
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Steering Angle	: 33.9

Fire 6-14 Passenger Car (P-Full) Dead-end Parking Space Access Review - P2 Level 2155 Leanne Boulevard TIS



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Scale: 1:800

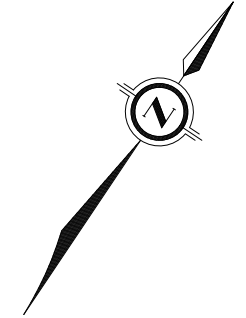


MSU

	width	: 2.60
	Track	: 2.40
	Lock to Lock Time	: 6.0
	Steering Angle	: 40.2

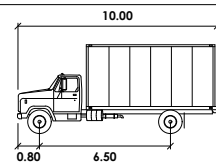
units

Figure 6-15
MSU Maneuvers - Inbound
2155 Leanne Boulevard TIS



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Scale: 1:800

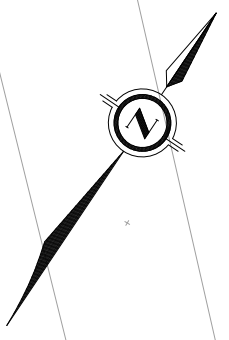
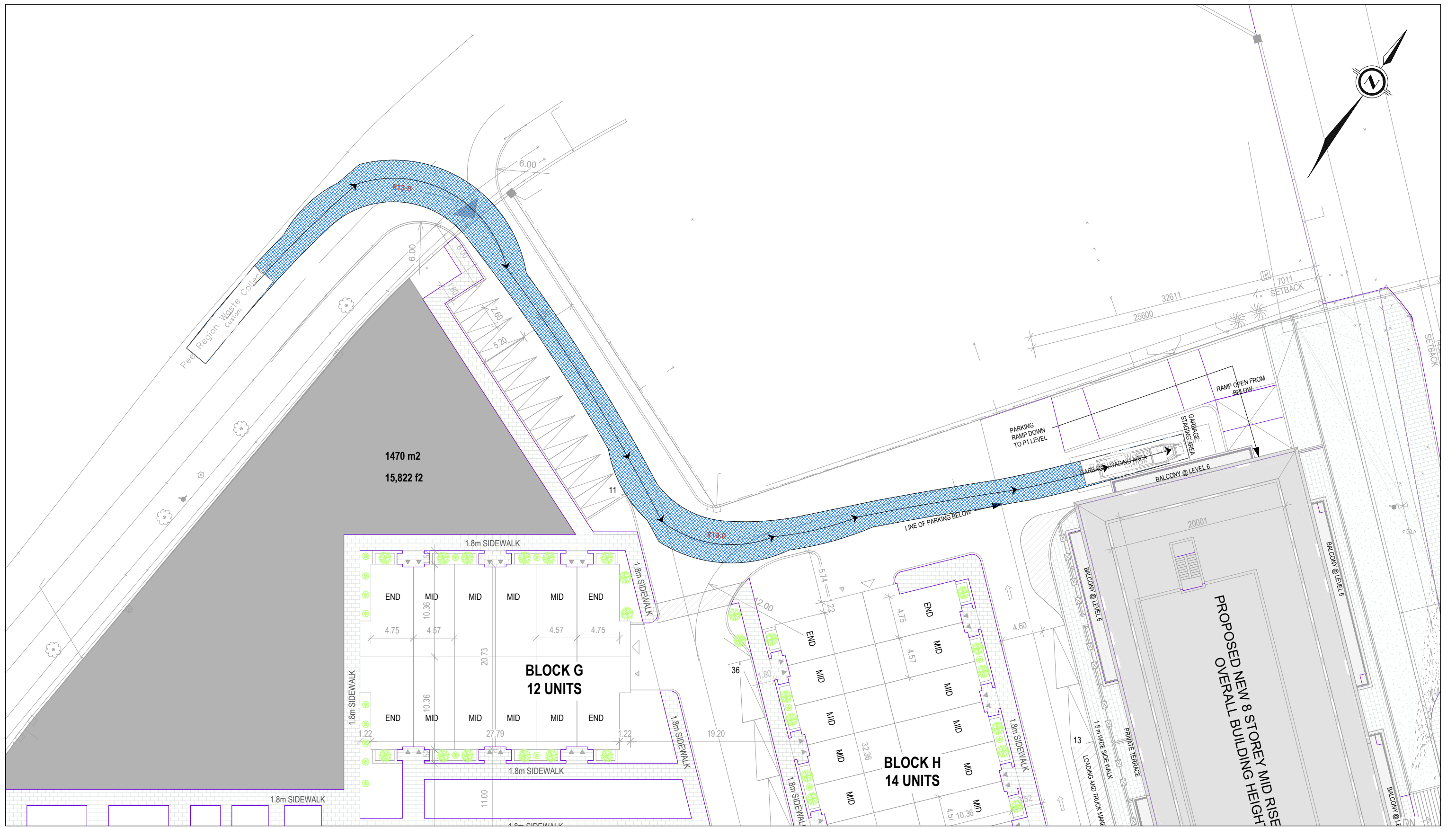


MSU

	width	: 2.60
	Track	: 2.40
	Lock to Lock Time	: 6.0
	Steering Angle	: 40.2

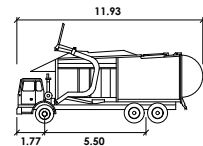
Figure 6-16
MSU Maneuvers - Outbound
2155 Leanne Boulevard TIS

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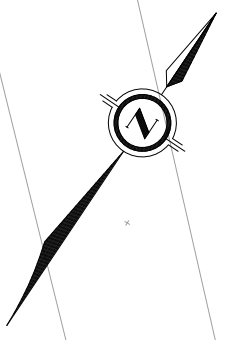
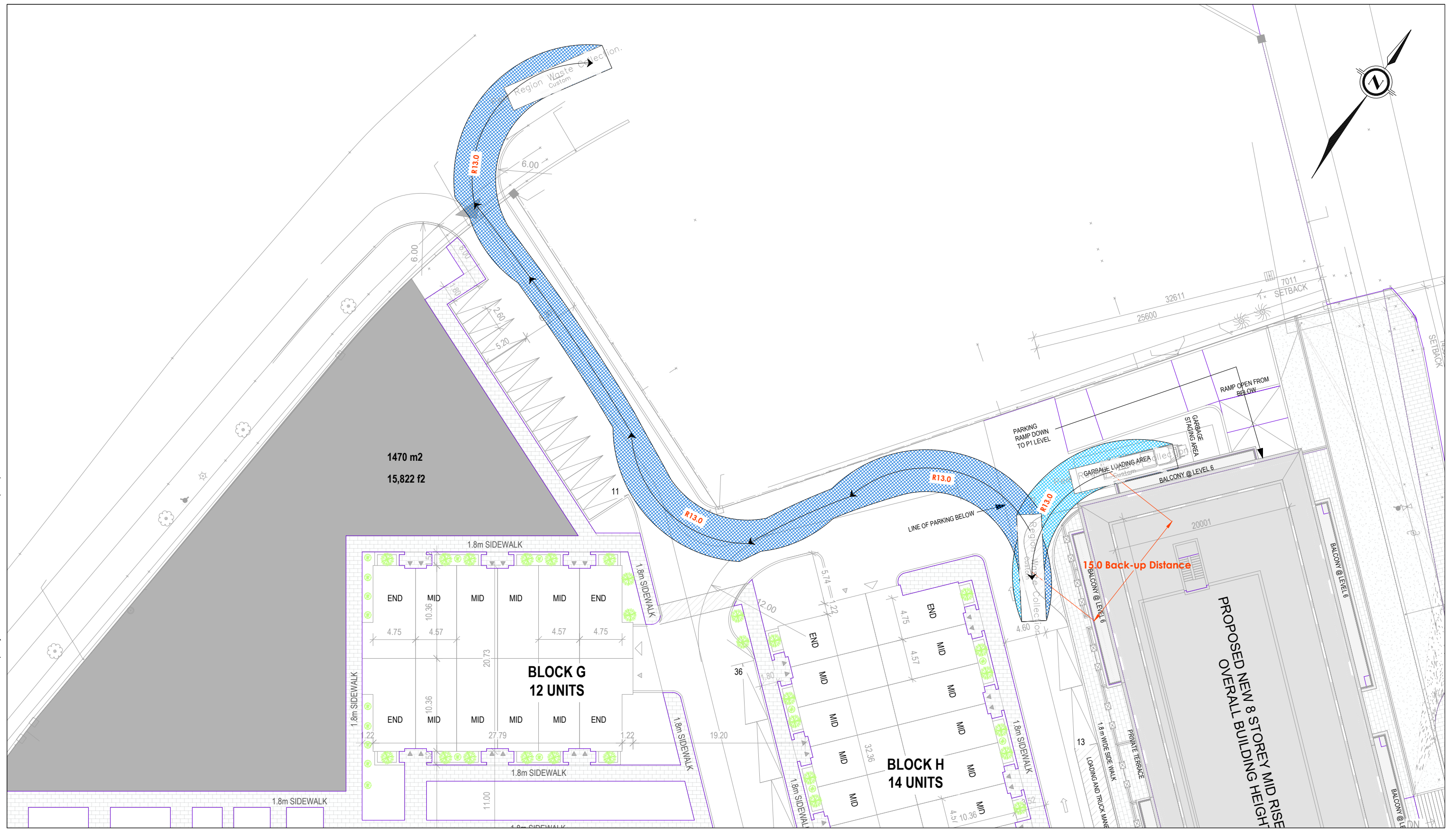


Peel Region Waste Collection.

	metres
Width	: 2.77
Track	: 2.77
Lock to Lock Time	: 6.0
Steering Angle	: 25.0

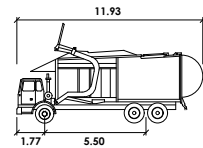
Figure 6-17
Garbage Truck Access Manoeuvre Review - Inbound
2155 Leanne Boulevard TIS

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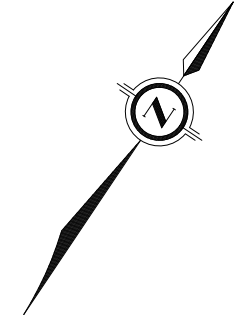
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Peel Region Waste Collection.

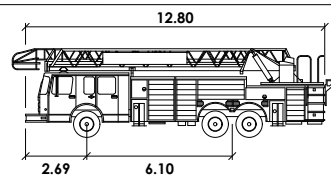
	metres
Width	: 2.77
Track	: 2.77
Lock to Lock Time	: 6.0
Steering Angle	: 25.0

Figure 6-18
Garbage Truck Access Manoeuvre Review - Outbound
2155 Leanne Boulevard TIS



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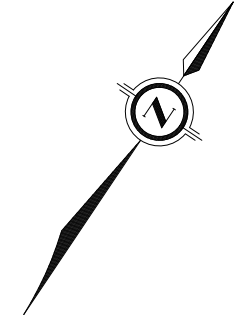
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Mississauga Fire Truck

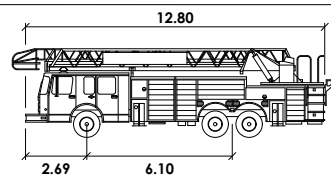
	meters
Width	: 2.54
Track	: 2.54
Lock to Lock Time	: 6.0
Steering Angle	: 37.0

Figure 6-19
Fire Truck Access Manoeuvres - Inbound
2155 Leanne Boulevard TIS



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Scale: 1:800



Mississauga Fire Truck

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

Figure 6-20
Fire Truck Access Manoeuvres - Outbound
2155 Leanne Boulevard TIS

SIGNAGE NOTES:

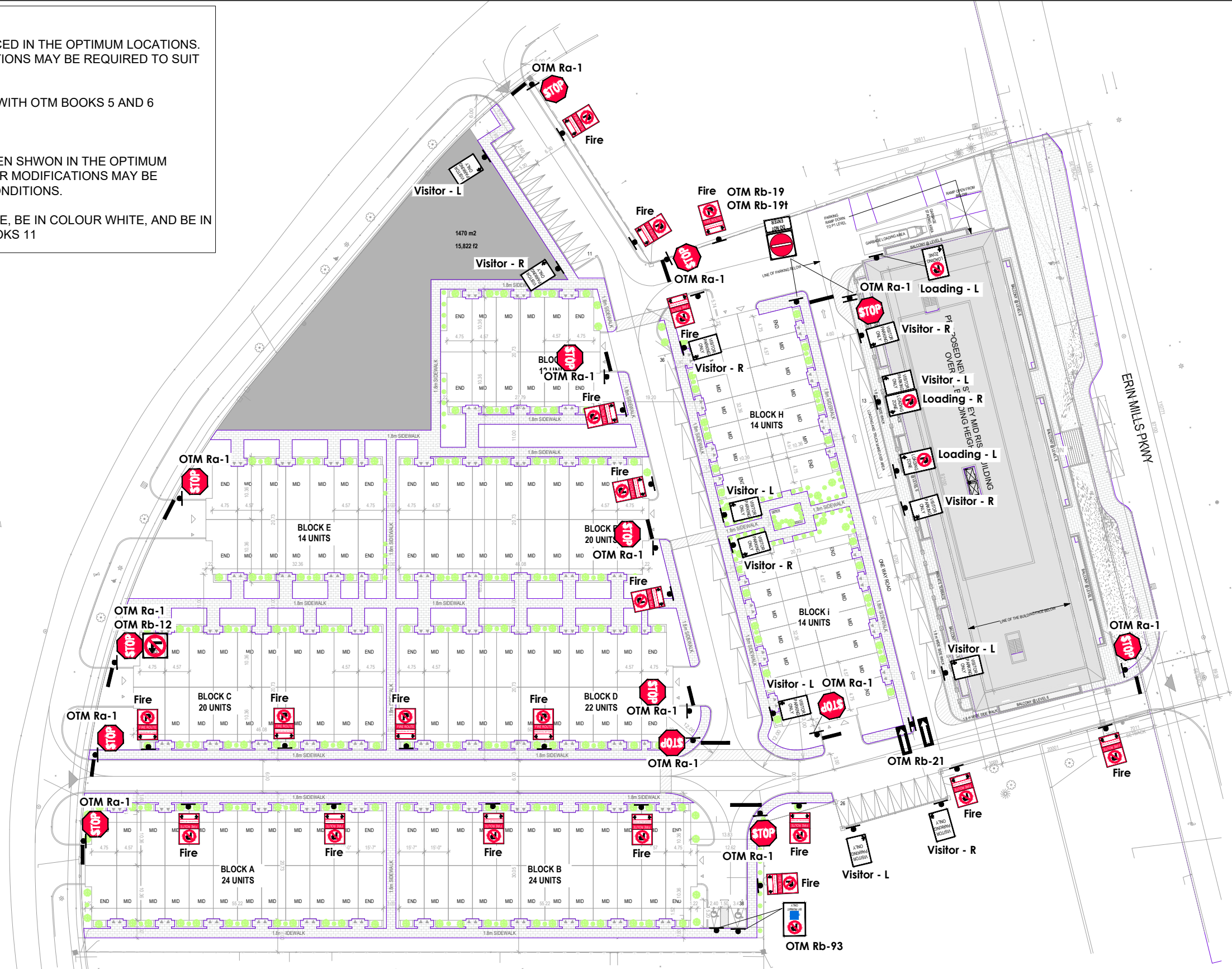
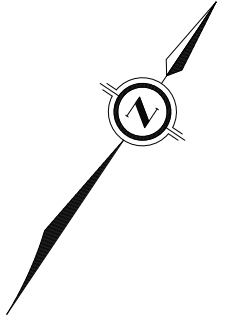
ALL SIGNAGE HAS BEEN PLACED IN THE OPTIMUM LOCATIONS. HOWEVER, MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT LOCAL CONDITIONS.

SIGNS ARE IN ACCORDANCE WITH OTM BOOKS 5 AND 6

PAVEMENT MARKING NOTES:

PAVEMENT MARKING HAS BEEN SHOWN IN THE OPTIMUM LOCATIONS. HOWEVER, MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT LOCAL CONDITIONS.

STOP BARS WILL BE 0.6m WIDE, BE IN COLOUR WHITE, AND BE IN ACCORDANCE WITH OTM BOOKS 11



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Date Site Plan Received: 2026-03-30

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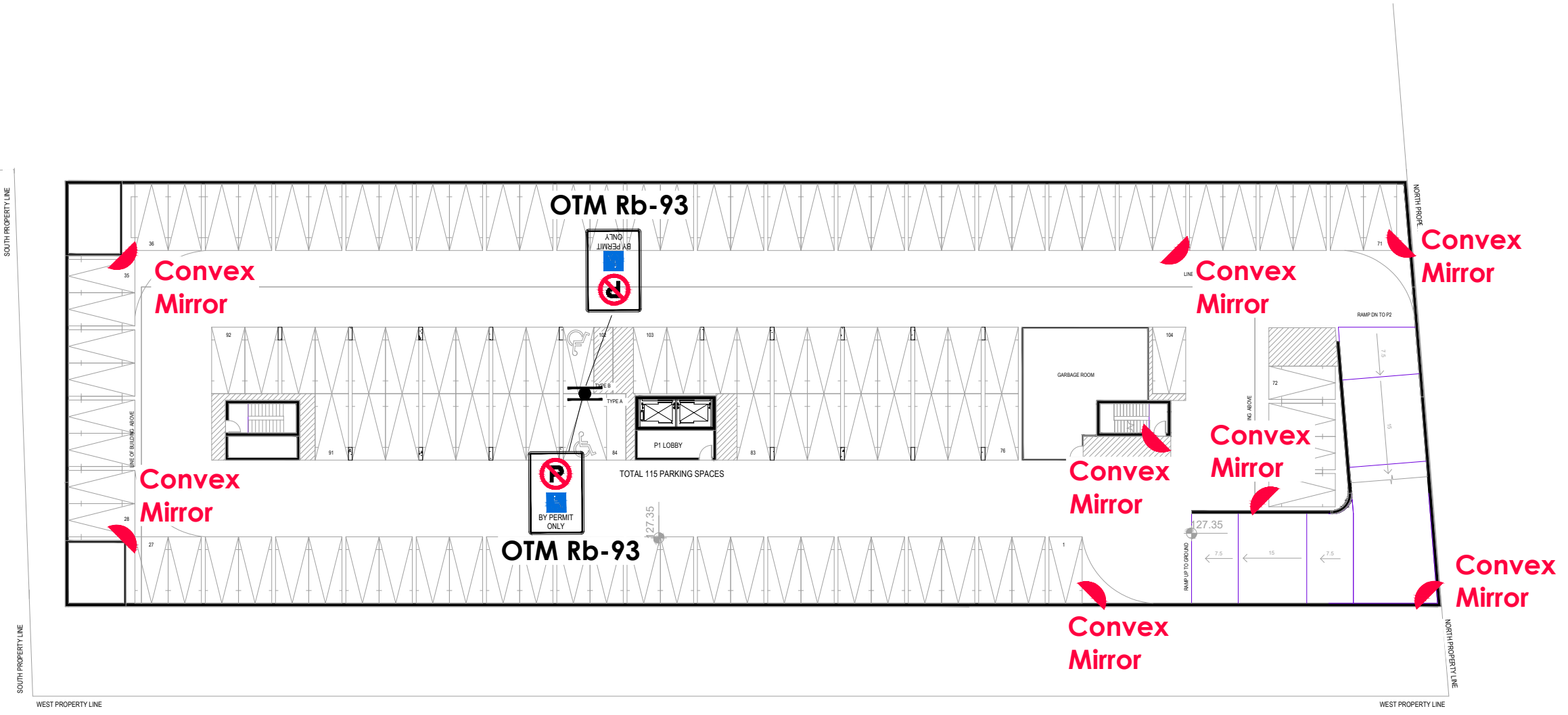
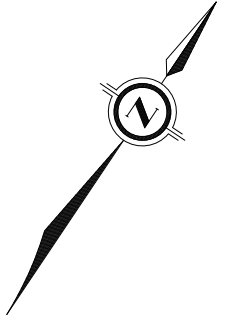


Figure 6-21
Pavement Marking and Signage Plan (Ground Level)
2155 Leanne Boulevard TIS

SIGNAGE NOTES:

ALL SIGNAGE HAS BEEN PLACED IN THE OPTIMUM LOCATIONS. HOWEVER, MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT LOCAL CONDITIONS.

SIGNS ARE IN ACCORDANCE WITH OTM BOOK 5.



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Date Site Plan Received: 2026-03-30

Scale: 1:400

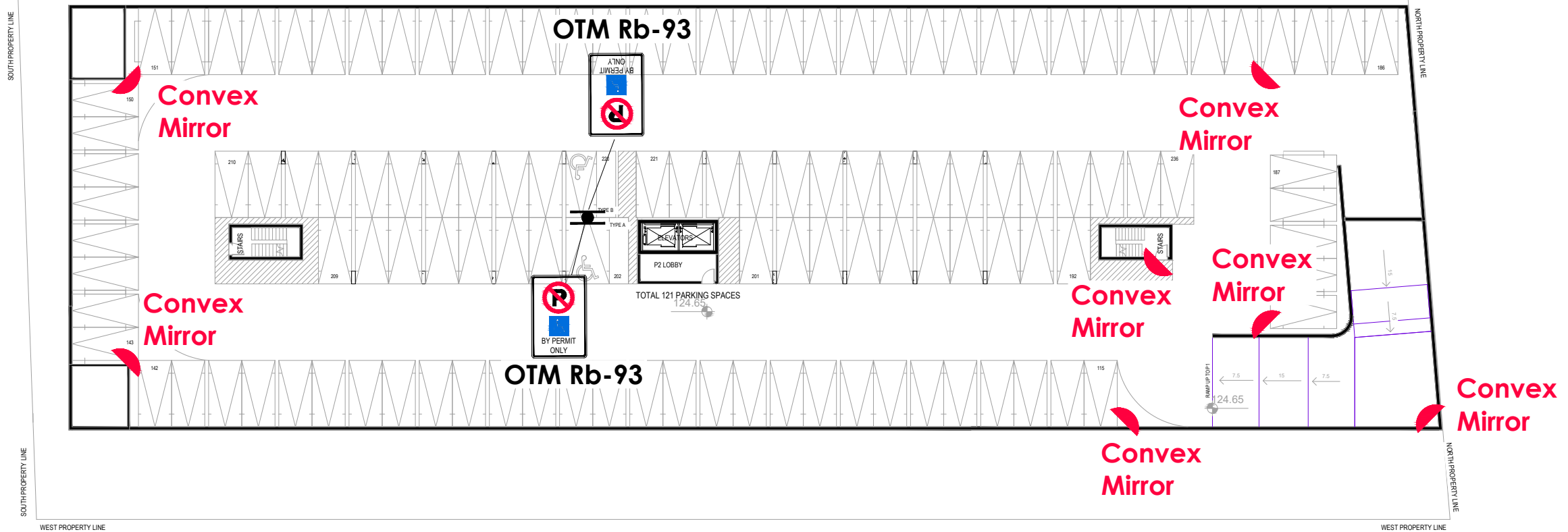
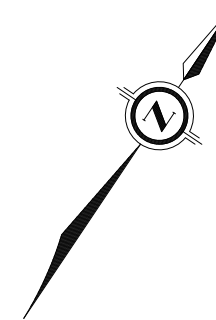


Figure 6-22
Signage and Convex Mirror Placement Plan (P1 Level)
2155 Leanne Boulevard TIS

SIGNAGE NOTES:

ALL SIGNAGE HAS BEEN PLACED IN THE OPTIMUM LOCATIONS. HOWEVER, MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT LOCAL CONDITIONS.

SIGNS ARE IN ACCORDANCE WITH OTM BOOK 5.



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Date Site Plan Received: 2026-03-30

Scale: 1:400



Figure 6-23
Signage and Convex Mirror Placement Plan (P2 Level)
2155 Leanne Boulevard TIS

7 Parking Assessment

7.1 Vehicular Parking Assessment

7.1.1 Zoning By-law 0225-2007 Parking Requirements

The subject lands located at 2155 Erin Mills Parkway are subject to the City of Mississauga Zoning By-law 0225-2007, and the parking requirements under Zoning By-law 0117-2022, Part 3 dated 2026 January 31. The amended Zoning By-law adopts tiered parking standards that are based on the “precinct” in which the site of interest is located. The site is located in Precinct 3 per Zoning Map 18. **Table 7-1** summarizes the minimum vehicular parking standards applicable to the site and the resulting requirements, according to Section 3.1.2.1 of the Zoning By-law.

Table 7-1 Zoning By-law 0225-2007 Vehicular Parking Requirements

Building Type	Proposed Use	By-law 0225-2007 Rates for Precinct 3	Number of Units	Required Parking Spaces ¹	Total Requirement
Townhouse	Resident	1.30	164	214	255
	Visitor	0.25		41	
Mid-Rise Building	Resident	1.00	203	203	244
	Visitor	0.20		41	

¹ Rounded up to the nearest whole number.

Based on Zoning By-law 0225-2007, the proposed development is required to provide a minimum of 214 parking spaces for townhouse residents and 41 parking spaces for townhouse visitors. In addition, the mid-rise building is required to provide 203 resident parking spaces and 41 visitor parking spaces.

7.1.2 Proposed Parking Supply Rates

As per the site plan provided to WSP on March 30, 2026, the proposed parking supplies for the townhouse and mid-rise building types are 366 and 236, respectively. **Table 7-2** summarizes the proposed parking rates and number of parking spaces for the subject development.

Table 7-2 Proposed Vehicular Parking Supply

Building Type	Proposed Use	Proposed Parking Rate	Number of Units	Provided Parking Spaces	Total Supply
Townhouse	Resident	2.00	164	328	366
	Visitor	0.23		38	
Mid-Rise	Resident	0.98	203	199	236
	Visitor	0.18		37	

¹ Rounded up to the nearest whole number.

As shown in **Table 7-2**, the proposed townhouse resident parking rate of 2.0 spaces per unit meets the requirements of the Zoning By-law. The proposed townhouse visitor parking rate of 0.23 spaces per unit is slightly lower than the By-law requirement of 0.25 spaces per unit.

For the mid-rise residential component, the proposed resident and visitor parking rates of 0.98 and 0.18 spaces per unit, respectively, are also marginally lower than the By-law requirement of 1.00 resident space per unit and 0.20 visitor spaces per unit.

It is our opinion that the By-law requirements for townhouse visitor parking and mid-rise residential parking overstate the actual parking demand for the subject site, and that the proposed parking rates are appropriate for the development.

Justification for the proposed townhouse visitor and mid-rise residential parking rates is provided in the following section.

7.2 Proposed Parking Supply Rate Justification

7.2.1 Area Non-Auto Travel Context

7.2.1.1 Transit Services

The subject site is directly serviced by MiWay and can conveniently access GO Transit services via bus transfer. As documented in **Section 2.2**, five MiWay bus routes are available near the site with bus stops along the frontage of Sheridan Centre, including Routes 13, 29, 45A, 71, and 110. In addition, Clarkson GO Station is about a 10-to-14-minute bus ride or a 10-minute bike ride away from the site, which provides frequent train services (Lakeshore West GO Line) as well as supplementary bus services.

7.2.1.2 Active Transportation Facilities

As documented in **Section 2.3**, the area surrounding the subject site has well-developed pedestrian infrastructure. Most study roadways have pedestrian treatment facilities on both sides, either in the form of sidewalks on both sides or MUPs on one side and sidewalks on the other. The only exceptions are North and South Sheridan Way, where sidewalks are only provided on one side of the road.

Furthermore, being situated in a commercial area, the site is within walking distance of many utilitarian services as well as offices, including a grocery store, restaurants, a shopping mall, banks, clinics, a public library and a Service Ontario. The advantageous location is convenient for future residents and visitors of the proposed development and can reduce their need for auto travel.

In addition, sidewalks and landscaped pedestrian-friendly areas have been proposed as part of the development plan, as shown in the site plan. The synergy between the proposed pedestrian facilities and the surrounding utilitarian services will further encourage future residents and visitors to walk.

In terms of cycling facilities, as mentioned above, MUPs are provided on one side of Erin Mills Parkway. In addition, on-street bike lanes are provided in both directions on Fifth Line, which intersects Leanne Boulevard at the north-west corner of the site.

7.2.2 Approved Precedents for Townhouse Visitor Parking Reductions

WSP completed a review of the approved exceptions in RM8 to RM12 Zones with reduced visitor parking rates for back-to-back and/or stacked townhouses (lower than 0.25 spaces per unit) listed under Sections 4.13A.2 to 4.14B.2 in Zoning By-law 0225-2007. **Table 7-3** provides a summary of the Exception Zones that have been approved with reduced residential visitor parking rates in Parking Precincts 3 and 4. These precincts were selected for comparison as Precinct 3, which includes the subject site, generally exhibits a transportation context similar to that of Precinct 4. It is also noted that visitor parking standards for back-to-back and stacked townhouses are consistent across all precincts. This table also includes a high-level comparison of transit context between the subject site and each referenced zone.

Table 7-3 Exceptions Zones with Reduced Visitor Parking Rates in Precincts 3 and 4

Exception Zone	Municipal Address ¹	Precinct	Approved Min. Residential Visitor Parking Rate ² (spaces per unit)	Transit Context Comparison
RM8-4	3250 Bently Drive	4	0.15	Similar to the site, this zone is serviced by three to four bus routes with no direct access to higher-order transit
RM8-5	5055 Oscar Peterson Boulevard	4	0.20	Similar to the site, this zone is serviced by three to four bus routes with no direct access to higher-order transit
RM8-6	2891 Rio Court	3	0.15	This zone is serviced by five or more bus routes with no direct access to higher-order transit. The transit level of service is slightly more advantageous than the site
RM8-8	3135 Boxford Crescent	4	0.20	Similar to the site, this zone is serviced by three to four bus routes with no direct access to higher-order transit
RM8-10	1205 Gooseberry Lane	4	0.20	This zone is serviced by one bus route with no direct access to higher-order transit. The site has comparatively better transit accessibility
RM8-11	3472 Widdicombe Way	3	0.15	This zone is serviced by five or more bus routes with no direct access to higher-order transit. The transit level of service is slightly more advantageous than the site
RM9-2	4045 Hickory Drive	3	0.20	Similar to the site, this zone is serviced by three to four bus routes with no direct access to higher-order transit

1 Some Exceptions Zones include multiple municipal addresses on the same parcel. The listed address represents one of the municipal addresses contained in the same parcel.

2 If multiple reduced residential visitor parking rates were approved, the rate for back-to-back/stacked townhouses is shown.

As indicated in the table above, many developments in Precincts 3 and 4 have received approval for reduced residential visitor parking supply rates. Comparatively, the approved exceptions listed in **Table 7-3** sought more significant parking reductions than the proposed development, which is requesting a visitor parking rate of 0.23 spaces per unit.

These parking reduction approvals provide strong precedents for the proposed visitor parking supply rate because not only are they located in Precincts 3 and 4 but also have very similar or at least comparable transit service context to the proposed development.

7.2.3 Approved Precedents for Residential Visitor Parking Reductions

WSP completed a thorough review of the approved exceptions in RA1 to RA5 Zones (Apartments) with reduced visitor parking rates for apartment buildings (lower than 0.20 spaces per unit) listed under Sections 4.15.2 to 4.15.6 in Zoning By-law 0225-2007. **Table 7-4** provides a summary of the Exception Zones that have been approved with reduced residential visitor parking rates in Parking Precincts 3 and 4. Approvals in Precincts 3 and 4 are selected since the subject site is in Precinct 3, which has the second highest parking requirements in the City, next to Precinct 4.

Table 7-4 Exceptions Zones with Reduced Visitor Parking Rates in Precincts 3 and 4

Exception Zone	Municipal Address ¹	Precinct	Approved Min. Residential Visitor Parking Rate (spaces per unit)	Site Context
RA1-33	5005 Harvard Road	4	0.18	Near some commercial plazas west of Erin Mills Town Centre.
RA1-37	5610 Winston Churchill Boulevard	4	0.15	Minor commercial within 500 metres.
RA4-43	1315 Rathburn Road West	4	0.15	Currently a parking lot for Erindale GO Station.
RA4-47	2700 Aquitaine Avenue	4	0.15	Close to Meadowvale Town Centre. Approximately 1 kilometre from Meadowvale GO.
RA4-49	6570 Glen Erin Drive	4	0.15	Near Meadowvale Town Centre. Approximately 2 kilometres from Meadowvale GO.
RA5-40	670 Courtney Valley Road	4	0.15	Some commercials within 500 metres.
RA5-48	2530 Eglinton Avenue West	3	0.15	Near Erin Mills Town Centre and other commercial establishments.
RA5-50	4072 Dixie Road	3	0.15	Near Rockwood Mall and other commercial establishments.

¹ Some Exceptions Zones include multiple municipal addresses on the same parcel. The listed address represents one of the municipal addresses contained in the same parcel.

As indicated in the table above, many developments in Precincts 3 and 4 have received approval for reduced residential visitor parking supply rates. The proposed visitor parking rate

of 0.18 spaces per unit is consistent with RA1-33 and is more conservative than the other Exception Zone rates.

These parking reduction approvals provide strong precedents for the proposed visitor parking supply rate because not only are they located in Precincts 3 and 4, but also most of them have very similar site-specific characteristics to the proposed development. In fact, the proposed development has more advantages in terms of location compared to many of the sites in **Table 7-3**. For example, the subject site and Zone RA4-49 are both approximately two kilometres from the nearest GO Station. While RA4-49 is close to a major commercial plaza (Meadowvale Town Centre) at an approximate distance of 300 metres, the proposed development is situated just south-west of Sheridan Centre Plaza. Other Exception Zones, namely RA1-33, RA1-37, RA5-40, RA5-48, and RA5-50 are located even further from rail transit compared to RA4-49 or the subject site.

7.2.4 Approved Precedents for Residential Parking Reductions

The subject site is located within approximately 200 metres of 2225 Erin Mills Parkway, a nearby development for which WSP submitted a TIS in May 2023. This development was accounted for as part of the future traffic assessment for the subject study. As part of the development approval process, the Ontario Land Tribunal (OLT) granted a site-specific Zoning By-law amendment on December 5, 2025 (OLT-24-000064), permitting a reduced resident parking supply of 0.9 spaces per residential unit.

Given the proximity of the site and the similar land use characteristics, the proposed resident parking rate of 0.98 spaces per unit for the subject development is consistent with, and meets, the site specific by-law for the nearby 2225 Erin Mills Parkway. Therefore, the proposed resident parking supply is considered appropriate for the subject development.

7.2.5 Site-Specific Transportation Demand Management Measures

A Transportation Demand Management (TDM) Plan defines a set of policies, initiatives, and programs to support the reduction in auto driver travel, whether by encouraging other travel modes (e.g., transit, walking, cycling or carpooling) or simply reducing trips by any mode.

TDM measures recommended for the proposed development would encourage visitors to travel by non-auto means. Details of the complete TDM plan are provided in **Section 8**.

7.2.6 Conclusions

In conclusion, based on the justification and rationale outlined above, it is our opinion that the proposed townhouse visitor parking rates, as well as the apartment parking rate for the subject site, are appropriate for the following key reasons:

- The subject site is well served by multiple MiWay bus routes with convenient connections to GO Transit, supported by well-developed active transportation infrastructure and pedestrian-friendly streetscapes with key amenities within walking distance.
- Many developments/sites in Precincts 3 and 4 have been approved with a reduced townhouse visitor parking rate of 0.15 or 0.20 spaces per unit. Those sites have very

similar or comparable transportation and location contexts to the proposed development, which provides a strong precedent for the proposed visitor parking rate of 0.23 spaces per unit.

- Many developments/sites in Precincts 3 and 4 have been approved with a reduced apartment residential visitor parking rate of 0.15 spaces per unit. Most of those sites have very similar transportation and location contexts to the proposed development, which provides a strong precedent for the proposed visitor parking rate of 0.18.
- The nearby 2225 Erin Mills Parkway proposed development, has a site specific by-law, which requires 0.9 spaces per unit, and is considered appropriate given the similar land use and location context.
- Site-specific TDM strategies will be implemented to support the reduction in auto usage by visitors by encouraging other travel modes.

7.3 Accessible Parking

Table 7-5 summarizes the accessible parking standards outlined in Section 3.1.3.1 under Zoning By-Law 0225-2007 (as amended) and the resulting requirements.

Table 7-5 Zoning By-law 0225-2007 Accessible Parking Requirements

Building Type	Proposed Visitor Parking Supply	By-law 0225-2007 Accessible Parking Rate	Required Accessible Parking Spaces
Townhouse	38	4% of the total visitor parking spaces (between 13 and 100 visitor parking spaces)	2 (1 Type 'A' and 1 Type 'B')
Mid-Rise	37	4% of the total visitor parking spaces (between 13 and 100 visitor parking spaces)	2 (1 Type 'A' and 1 Type 'B')

1 Rounded up to the nearest whole number.

2 Type 'A' space: 5.2 meters by 3.4 meters with a 1.5-meter-wide access aisle.

3 Type 'B' space: 5.2 meters by 2.4 meters with a 1.5-meter-wide access aisle.

Based on the site plan provided on March 30, 2026, the townhouse visitor parking includes two surface-level accessible parking spaces, one Type 'A' and one Type 'B', meeting the By-law requirements. For the mid-rise underground parking, four accessible parking spaces are provided, two Type 'A' and two Type 'B', exceeding the By-law requirements.

7.4 Bicycle Parking

Table 7-6 summarizes the bicycle parking standards outlined in Section 3.1.6.5 under Zoning By-Law 0225-2007 (as amended) and the resulting requirements.

Table 7-6 Zoning By-law 0225-2007 Bicycle Parking Requirements

Building Type	Number of Units	By-law 0225-2007 Class 'A' Rate	By-law 0225-2007 Class 'B' Rate	Required Class 'A' Bicycle Spaces ¹	Required Class 'B' Bicycle Spaces ¹
Mid-Rise	203	0.6 spaces per unit	The greater of 0.05 spaces per unit of 6.0 spaces	122	10

1 Fractions of less than 0.5 shall be rounded down to the nearest whole number, and fractions equal to or greater than 0.5 shall be rounded up to the nearest whole number.

2 Class 'A' space: an indoor bicycle parking space in an enclosed area with controlled access.

3 Class 'B' space: an outdoor bicycle parking space in a publicly accessible location.

Based on Zoning By-law 0225-2007, 122 Class 'A' and 10 Class 'B' bicycle parking spaces are required for the mid-rise building. It is our understanding that the Applicant will provide 0.2 for Class 'A' and 0.02 Class 'B' spaces per unit, consistent with the approved development at 2225 Erin Mills Parkway.

8 Transportation Demand Management

The following outlines the TDM elements recommended for the proposed development.

8.1 Unbundled Parking

To complement the proposed parking supply for residents, WSP recommends that the developer implement unbundled parking for the proposed mid-rise building development. The practice of unbundled parking is an important and standard TDM strategy for medium and high-density residential developments in the GTA.

This TDM measure offers potential residents the option to purchase their units separately from the parking space at a reduced cost. The cost reduction must reflect the realistic and actual cost of the parking space to encourage purchasers to consider an unbundled parking option. This, in turn, promotes residents to explore alternative transportation options aside from single-occupancy vehicle driving.

8.2 Encourage the Use of Transit Services

The subject site is directly serviced by several MiWay bus routes and can access GO Transit services via bus transfer. To encourage the use of transit for future commuters of the site, WSP recommends the following measures:

- Provide transit information to future occupants of the development, such as transit route schedules, maps, and brochures. Such information can be provided to the residents in the form of an information package at the time of closing.
 - Provide Presto cards with pre-loaded funds to new residents at the time of closing as an incentive for new residents to become familiar with the benefits and convenience of the local transit network and adopt a transit-dependent lifestyle. The recommended amount is \$50.
-

8.3 Encourage Walking

The area surrounding the subject site has well-developed pedestrian infrastructure. The site itself is within walking distance of many utilitarian services and commercial establishments. New pedestrian connections have also been proposed as part of the development plan.

It is recommended that information on the amenities within walking distance of this site, including shopping, services (banking, clinics, Service Ontario, etc.), restaurants, institutions, and facilities (libraries, theatres, etc.) be provided to the residents in the form of an information package at the time of closing.

8.4 Encourage Cycling

It is our understanding that bicycle parking will be provided on the site according to the rates detailed in **Section 7.4**. The provision of bicycle parking spaces and the cycling infrastructure

will encourage more cycling use. It is also recommended that one bicycle repair station be provided within the proposed mid-rise building development, which can be used by residents and occasional visitors who require bicycle repair.

8.5 Information Packages for New Residents

To help facilitate non-auto trips, it is important to provide transportation information to new residents so that they can view and understand their travel options before establishing new travel habits. This will increase the chance that new residents incorporate these alternatives into their travel patterns after moving into the development.

The developer will provide information about transportation options to new residents in an information package that will include items such as:

- Existing transit services, including a MiWay ride guide, a GO Transit system map, route navigators for each area transit route and seven-day schedules for nearby stops for each of these routes. Transit information will be provided by City staff.
- Presto cards for future residents with pre-loaded funds (the recommended amount is \$50).
- A map of the surrounding area with sidewalks and bicycle facilities, cycling and pedestrian safety tips, and information on active transportation events. The information will be prepared by the City.

The developer will be responsible for coordinating with the City and distributing the information packages at the time of closing.

9 Pedestrian Circulation Plan

As mentioned in Section 2.3, the road network surrounding the site has active transportation infrastructure available, including multi-use paths, cycle tracks, and sidewalks, providing adequate connectivity within the study area. The subject site is located near various restaurants and is a 15-minute walk or 10-minute bike ride to Iona Catholic Secondary School. Additionally, it has ample access to transit stops that provide further connectivity throughout the Peel Region.

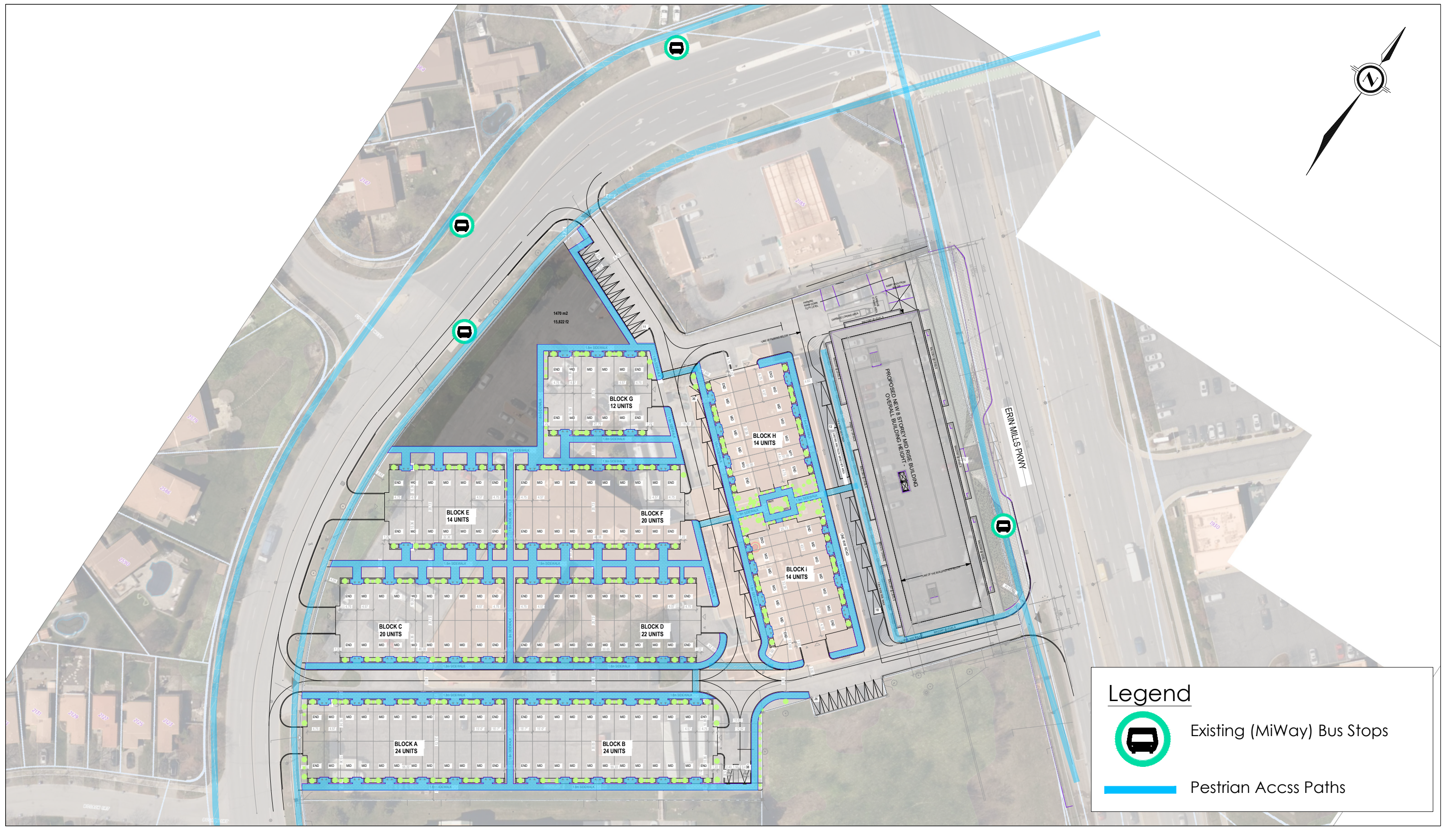
The pedestrian and cycling circulation network within the site and the immediate vicinity surrounding the site is illustrated in **Figure 9-1**.

The multi-use path available on Erin Mills Parkway north of Leanne Boulevard, cycle tracks on Fowler Drive, and bike lanes on Fifth Line will serve to encourage residents and commuters to choose cycling as their mode of transport. The multi-use path extends to Erin Mills Parkway and Sheridan Park Drive / Lincoln Green Way, which provides further connectivity to various schools and parks north of the site.

Sidewalks are provided on both sides of most roadways in the area, with the exception of North and South Sheridan Way. These roadways have been identified as pedestrian gaps by the City of Mississauga, and a boulevard multi-use path is proposed on South Sheridan Way. This improvement, along with the currently available sidewalks, will promote residents and commuters to choose walking as their mode of transport to connect to other modes of travel, including transit.

Within the site, walking and cycling facilities will be provided, which will connect to the Active Transportation network in the immediate vicinity of the city.

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Date Site Plan Received: 2026-03-30

Scale: 1:1000



Figure 9-1
Pedestrian Circulation Plan
2155 Leanne Boulevard TIS

10 Summary and Recommendations

10.1 Summary

The proposed development at 2155 Leanne Boulevard consists of an 8-storey mid-rise building with 203 residential units and 164 four-story back-to-back townhouse units. The subject site will be served by six accesses consisting of five accesses along Leanne Boulevard and one right-in/right-out access on Erin Mills Parkway. A total of 122 a.m. peak hour and 145 p.m. peak hour trips are generated by the site. The following highlights key takeaways from the conducted traffic assessment.

Traffic Operations Assessment

Under existing conditions:

- The signalized study intersections operate at an overall LOS ‘D’ or better during the weekday a.m. and p.m. peak hours, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which operates at LOS ‘E’ during the p.m. peak hour. Critical movements have been identified, but all operate within capacity.
- Almost all of the movements at the unsignalized intersections perform with an LOS ‘D’ or better during both the a.m. and p.m. weekday peak hours. The only exception is the unsignalized intersection of Leanne Boulevard at North Sheridan Way, where the southbound left turn movement operates at LOS ‘F’, but is still within capacity.

Under future background conditions:

- In the 2031 analysis, the signalized study intersections operate at an overall LOS ‘D’ or better during the weekday a.m. and p.m. peak hours, except for Southdown Road at South Sheridan Way/QEW eastbound off-ramp, which operates at LOS ‘F’ during the p.m. peak hour. Results for the 2036 and 2041 analyses are similar, apart from Erin Mills Parkway and North Sheridan Way/QEW WB off-ramp, which experiences some capacity issues in the p.m. peak hour. The intersection operates with LOS ‘D’ and LOS ‘F’ in the 2036 and 2041 analyses, respectively. Critical and over capacity movements have been identified.
- Recommended signal timing improvements are applied to Southdown Road at South Sheridan Way/QEW eastbound off-ramp in the 2031, 2036 and 2041 analyses, and at Erin Mills Parkway and North Sheridan Way/QEW WB off-ramp in the 2036 and 2041 analyses.
- In the 2031, 2036 and 2041 analyses, the unsignalized intersection of Leanne Boulevard at North Sheridan Way experiences movements that operate with LOS ‘E’ or worse during both peak hours. All movements still operate within capacity.
- Site accesses operate with all movements within capacity.

Under future total conditions:

- Results are similar to the future background conditions, given that the site traffic has a marginal impact on the study intersections.
- Critical or overcapacity movements are identified, in addition to suggested improvements, which are the same as those mentioned in the future background analysis. It is reiterated that the site-generated traffic represents a relatively small proportion of the overall future

traffic volumes, and the forecasted capacity deficiencies are primarily attributable to general background traffic growth rather than the proposed development. Therefore, these improvements should not be tied to the proposed development.

- The proposed site accesses operate with all movements within capacity.

Loading Assessment

- The proposed development is required to provide one loading space. The proposed loading supply of one space at the proposed building satisfies the By-law requirements.

Site Plan Review

- The proposed underground driving aisle widths do not meet the minimum requirement of and are proposed to be a minimum of 6.0 metres (two-way) and 4.5 m (one-way). This is consistent with the City of Toronto ZBL 569-2013. Also, design vehicles can circulate the site without issues, as shown in Section 6.4.
- A sight distance review was completed at the driveways on Leanne Boulevard. Outbound left turns will be prohibited from the Block C driveway, and two units in Block A block the sightlines at the south driveway, Block C and E driveways. It is our understanding that two units in Block A will be modified or removed in subsequent submissions to avoid blocking the sightlines.
- The provided corner clearances meet the distances suggested in TAC.
- The provided clear throat lengths meet the distances suggested in the City of Toronto Access Management Guidelines for Development in Metro Toronto.
- The spacing between driveways on the site and between the driveways on the site and the adjacent driveways on other properties meet the minimum suggested spacing from TAC. The property frontage on Leanne Boulevard exceeds 200 m and the proposed number of driveways on Leanne Boulevard is 4, which meets the TAC suggested maximum number of driveways.
- Vehicles exiting the Block A driveway and turning left would not conflict with vehicles exiting Bosack Court and turning left. For low volume roadways, such as local road, the special relationship between driveways on opposite sides of the road is not necessarily a design consideration. Therefore, the offset between the Block A driveway and Bosack Court is not problematic.
- Design vehicles (P-Full, MSU, Peel Region waste collection vehicle and fire truck) can circulate the site with no issues.

Parking Assessment

- The proposed resident parking supply for the townhouse component satisfies the Zoning By-law 0225-2007 requirements while the resident parking for the mid-rise component and residential visitor parking for both uses does not. It is our opinion that the proposed parking supply is appropriate based on the site's transportation context, approved precedents in similar areas in Mississauga, and the recommended TDM measures. Detailed justifications are provided in **Section 7.2**.
- In accordance with Zoning By-law 0225-2007, the townhouse component is required to provide two accessible parking spaces (one Type A and one Type B), and the mid-rise

component is also required to provide two accessible parking spaces (one Type A and one Type B). The proposed development provides two surface accessible spaces for the townhouses and two underground accessible spaces for the mid-rise, thereby satisfying the By-law requirements.

- Based on Zoning By-law 0225-2007, 122 Class 'A' and 10 Class 'B' bicycle parking spaces are required for the mid-rise building. It is our understanding that the Applicant will provide 0.2 for Class 'A' and 0.02 Class 'B' spaces per unit, consistent with the approved development at 2225 Erin Mills Parkway.

Transportation Demand Management

- TDM measures recommended for the proposed development are outlined in **Section 8**. The recommended TDM measures will promote sustainable travel modes and thus, reduce single-occupancy vehicle trips.

10.2 Recommendations

WSP recommends the following as a result of background traffic:

- Signal timing optimization at Southdown Road at South Sheridan Way/QEW eastbound off-ramp for the 2031 horizon.
- Cycle length increase from 140 to 160 seconds at Southdown Road at South Sheridan Way/QEW eastbound off-ramp and Erin Mills Parkway and North Sheridan Way/QEW WB off-ramp for the 20936 and 2041 horizons.

WSP recommends the following for the proposed development, and we understand that the site plan-related recommendations will be incorporated at the SPA stage:

- Bicycle parking is proposed to be provided as shown in **Section 7.4**, and will be confirmed in the SPA stage.
- Implement the recommended TDM measures detailed in **Section 8** to reduce automobile dependency and promote alternative travel modes for the proposed development.
- A variance from the City ZBL to permit drive aisles to be a minimum of 6.0 metres (two-way) and 4.5 m (one-way).
- Modify Block A to avoid blocking the sightlines as shown in **Figure 6-4** and **Figure 6-5**.
- To avoid potential conflicts between loading trucks or waste collection vehicles and passenger vehicles exiting the parking garage and one-way drive aisle at the mid-rise building during loading operation, WSP recommends a flag person.
- The proposed pavement marking and signage plan for the site on the ground level, P1 and P2 are shown in **Figure 6-21**, **Figure 6-22** and **Figure 6-23**.

APPENDIX

A Terms of Reference



Memo

To: Kate (Jekaterina) Vassilyev, City of Mississauga, Hashim Ali Hamdani, Region of Peel, Nicole Hajjar, Ministry of Transportation Ontario

From: David Lukezic and Kian Azari, WSP

Date: 2026-03-11

Subject: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

WSP Canada Inc. (WSP) has been retained to complete a Traffic Impact Study (TIS) in support of a proposed development to be located at 2155 Leanne Boulevard, in the City of Mississauga. The TIS would be used as part of the Zoning By-law Amendment (ZBA) and Official Plan Amendment (OPA) submission. The current site plan is provided in **Figure 1**.

Figure 1: Site Plan





The development proposal involves redeveloping existing land uses on the site. The site currently includes a commercial building occupied by several tenants (i.e., Swiss Chalet restaurant, dental office, foot clinic, hair salon, etc.). The proposed development would consist of an 8-storey mid-rise building with 192 units and 164 four-storey back-to-back townhouse units organized across multiple blocks.

The site is proposed to include six accesses. Five accesses are proposed on Leanne Boulevard, and one access is proposed on Erin Mills Parkway.

The site plan is proposed to include the following parking supply:

- 328 residential parking spaces for the townhouse units (2 per unit). Parking will be provided in the form of two-tier parking stackers in the private garages.
- 237 parking spaces in the underground parking garage of which 198 would be for residents (1.03 per unit) and 39 would be for visitors (0.20 per unit)
- 40 visitor parking spaces on the surface for townhouse visitors (0.24 per unit).

It should be noted that the parking supply may slightly change after WSP completed the site plan review. This document presents an outline for the TIS to be completed for this development. The proposed outline has been prepared to align with the City of Mississauga TIS Guideline, 2022, Peel Region TIS Guidelines, 2017 and Ministry of Transportation Ontario (MTO) TIS Guidelines, 2021. The TIS will cover the following aspects, which are expanded upon further in the following sections.

- Study area and data collection
- Traffic operations analysis:
 - Existing conditions
 - Horizon year/analysis periods/scenario
 - Future background conditions
 - Site-generated trips: generation and distribution
 - Future total conditions
- Bicycle and vehicle parking, and loading evaluation
- Site plan review: design vehicle manoeuvring and site layout
- Transportation Demand Management measures
- Recommendation and conclusion

The proposed Terms of Reference (TOR) for this study are provided below. WSP also completed the Pre-Study Consultation Checklist - Appendix B of the City's TIS Guidelines.



Traffic Data Collection

Based on the location and magnitude of the proposed development, we propose that the following intersections be included as part of this study:

- Erin Mills Parkway at Leanne Boulevard (signalized),
- Erin Mills Parkway at Site Access (unsignalized),
- Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp (signalized),
- Erin Mills Parkway at South Sheridan Way / QEW Eastbound Off-Ramp (signalized),
- Leanne Boulevard at Five Site Accesses (unsignalized), and
- Leanne Boulevard at North Sheridan Way (unsignalized).

WSP has MTO counts from 2024 for the following intersections:

- Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp (signalized),
- Erin Mills Parkway at South Sheridan Way / QEW Eastbound Off-Ramp (signalized),

Third-party traffic counters specialized in traffic data collection will be commissioned by WSP to survey traffic volumes at the remaining intersection during the typical weekday a.m. (7-10), p.m. (4-7) peak periods. The existing traffic volumes at the study intersections will be established by the collected TMCs.

We will obtain the latest signal timing plans from the City, Region, and MTO.

Horizon Years

For traffic analysis purposes, it is assumed that the proposed development will be fully built out in one phase within a five-year time span (2031).

The proposed horizon years for this study are 2026 for existing conditions, 2031, 2036, and 2041 for future conditions (buildout year, and five-year and 10-year post-buildout horizons, per MTO's guidelines).

Existing Traffic Operations

Existing conditions and current traffic operations will be analyzed at the relevant intersections and driveways using the Synchro 12 software package for traffic analysis. Existing conditions will be modelled



based on the existing transportation network, lane configurations and surveyed parameters for the peak hour traffic volumes.

Future Background Traffic Operations

As part of the TOR, we will confirm with the review agencies whether and what future intersection or roadway improvements are planned within the study area that are anticipated to be in place during the horizon years.

Future background traffic volumes will be estimated for the study area to correspond with the study horizons. Based on WSP’s review of the City’s Active Development Applications Map, we identified two proposed developments that are closest to the study area. Those developments are summarized in **Table 1**.

Table 1: Nearby Proposed Developments

Address	Application	Proposal	Source of Traffic Volumes
1970 and 1980 Fowler Drive	OZ/OPA 25-23 W8	A 24-storey apartment building with 285 dwelling units	January 2026 TIS, Lea Consulting
2225 Erin Mills Parkway	SP 25 13	620 units: 249 in Zone A and 371 in Zone G	November 2023 Traffic Memo included in Response to Comments, WSP

We propose to include traffic from these developments.

In addition, WSP will include general traffic growth in the study based on Average Annual Daily Traffic (AADT) or historical TMCs, as applicable.

Detailed intersection capacity analyses will be undertaken to determine future background traffic operations at the boundary intersections. This will identify any improvements that are required as a result of background traffic growth and should, therefore, **not** be attributed to the subject development.

Trip Generation and Assignment

We will develop site-generated trips using the Institute of Transportation Engineers Trip Generation Manual, 12th Edition, in conjunction with modal split reductions derived from Transportation Tomorrow Survey (TTS) data.

Trips from the existing site will be subtracted from the site trip generation calculations. The net new site-generated trips will be distributed to the boundary road network using TTS data and existing traffic patterns.

Future Total Traffic Operations

The net site-generated traffic will be added to the future background traffic volumes to enable us to determine the total future traffic conditions for the site.

We will perform detailed intersection capacity analyses to confirm traffic operations at the boundary road intersections and site driveways. Based on this, we will provide quantitative and qualitative results and recommendations on any required improvements or mitigating measures at the study intersections, if needed.

Parking and Loading Assessment

WSP will complete a review of the City's By-law requirements relative to the proposed parking supply for the development.

Based on our preliminary review, the residential and visitor parking supply for the mid-rise building and the residential parking supply for the townhouses meet the Zoning By-law requirements. There is a minor parking deficiency in the visitor parking supply for the townhouse units relative to the Zoning By-law requirements (0.24 vs. 0.25).

We will provide commentary on the proposed supply, which may be based on:

- Area non-automobile transportation context, including cycling, walking, and transit,
- Planned non-automobile transportation improvements in the area and their anticipated impact on automobile usage,
- Recent development approvals in comparable areas,
- Other municipalities' By-law parking requirements and trends for areas with similar context to the site, and



- Transportation Demand Management plan.

TDM Plan

WSP will identify a package of TDM measures that is suitable for the development context. This includes outlining the measures and the quantity of the TDM measures proposed.

Site Access and Circulation Review

We will test the movements of passenger vehicles as well as fire, garbage, loading trucks to determine if they can easily access, maneuver through and exit the development. Key considerations may include elements such as:

- Minimum dimensions for parking, loading, driveways, and access aisles,
- Accessible parking space dimensions,
- Vehicular circulation on the site, including passenger vehicles, garbage and loading trucks plus emergency vehicles,
- Passenger vehicle parking maneuvers within the proposed underground parking garage, and
- Suggestions on traffic controls and pavement markings.

WSP will also review the sightlines at accessed on Leanne Boulevard.

Information Request

We respectfully request the following information from the City, Region, and MTO:

- Signal timing plans at the signalized study intersections (from Region and MTO),
- Planned roadway, intersection and/or highway ramp improvements in the study area that are anticipated to be in place within the study horizons (from City, Region, and MTO),
- AADT for multiple years or historical traffic counts along Erin Mills Parkway in the area (from the Region),
- AADT for multiple years or historical traffic counts at the QEW off-ramps (from MTO), and
- AADT for multiple years or historical traffic counts along Leanne Boulevard, North Sheridan Way and South Sheridan Way (from the City).



If you have any questions, please do not hesitate to contact David Lukezic at 289-982-4742 or David.Lukezic@wsp.com or Kian Azari at 289-982-4029 or Kian.Azari@wsp.com.

We would appreciate it if a response to the proposed TOR could be provided by Wednesday, March 18, 2026.

Yours sincerely,

WSP Canada Inc.

A handwritten signature in blue ink that reads "David Lukezic". The signature is written in a cursive, flowing style.

David Lukezic, M.Eng., LEL, RPP
Senior Project Manager
Transportation Planning and Science

Appendix B

Pre-Study Consultation Checklist

Description	Information	Section Reference
Development Information		
Development Description (land use, size, and number of phases of development)	<ul style="list-style-type: none"> Phase 1: 192 units in a 8-storey building 164 back-to-back townhouses Phase 2: N/A Phase 3: N/A 	2.3.6
Transportation Impact Assessment		
Step 1 – Screening		
Type of Application (attach a drawing)	<ul style="list-style-type: none"> Official Plan Amendment Zoning Amendment <input type="checkbox"/> Site Plan Control Application <input type="checkbox"/> Plan of Subdivision <input type="checkbox"/> Other _____ 	2.3.5
Screening Criteria	<ul style="list-style-type: none"> Trip Generation Trigger Satisfied <input type="checkbox"/> Location Trigger Satisfied <input type="checkbox"/> Operational/Safety Trigger Satisfied 	2.2.1
Type of Study	<ul style="list-style-type: none"> Transportation Impact Study <input type="checkbox"/> Access Review <input type="checkbox"/> No Additional Study Required 	2.2.1
Step 2 – Scoping		
Study Area (intersections to be analyzed)	<ul style="list-style-type: none"> Chalkwell Close and Sandgate Crescent (unsignalized) Erin Mills Parkway at Leanne Boulevard (signalized) Erin Mills Parkway at Site Access (unsignalized) Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp (signalized) Erin Mills Parkway at South Sheridan Way / QEW Eastbound Off-Ramp (signalized) Leanne Boulevard at Five Site Accesses (unsignalized) Leanne Boulevard at North Sheridan Way (unsignalized) 	2.3.8

<p>Note: The Transportation Consultant is responsible to identify any further intersections impacted as the study progresses.</p>		
---	--	--

Description	Information	Section Reference
Horizon Years	<ul style="list-style-type: none"> ▪ 5 years from date of TIS Interim years _____ <ul style="list-style-type: none"> ▪ Other. For Regional and MTO intersections 5, 10 and 15 years from date of TIS. 	2.3.9
Analysis Periods	<ul style="list-style-type: none"> ▪ AM weekday peak hour of adjacent roadway ▪ 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"> ▪ Appendix D provides typical Synchro Analysis Parameters for City intersections ▪ The following parameters would be used for Regional Road intersections based the the Regions's TIS guidelines: <ul style="list-style-type: none"> • Saturation flow rate of 1,900 vehicles per hour • 7 metre lane width on Regional roads; and • 5 metre lane width on the intersecting street(s) and/or access(es) 	2.3.13
Existing Transportation Conditions	<input type="checkbox"/> City data sources <ul style="list-style-type: none"> ▪ New data collection. Third-party traffic counters specialized in traffic data collection were commissioned by WSP to survey traffic volumes at the study intersection during the typical weekday a.m. (7-10) and p.m. (4-7) peak periods. The turning movement counts will be collected on one weekday between March 24, 2026 and March 26, 2026. <input type="checkbox"/> Other: <ul style="list-style-type: none"> ▪ Erin Mills Parkway at North Sheridan Way / QEW Westbound Off-Ramp (signalized). MTO counts from August 28, 2024. ▪ Erin Mills Parkway at South Sheridan Way / QEW Eastbound Off-Ramp (signalized). MTO counts from August 28, 2024. 	2.3.14
Planned Network Improvements (with timing)	<ul style="list-style-type: none"> ▪ Please confirm if there are any planned network improvements 	2.3.16

<p>Other Planned Developments (per City's Website)</p>	<ul style="list-style-type: none"> ▪ Based on WSP's review of the City's development application status webpage, the following background developments are proposed to be included based on their proximity to the site: <ul style="list-style-type: none"> • 1970 and 1980 Fowler Drive • 2225 Erin Mills Parkway WSP proposes to use site traffic volumes from the following sources: <ul style="list-style-type: none"> • January 2026 TIS, Lea Consulting for the proposed development at 1970 and 1980 Fowler Drive • November 2023 Traffic Memo included in Response to Comments, WSP for the proposed development at 2225 Erin Mills Parkway 	<p>2.3.17</p>
<p>Identification of Mitigation Improvement Measures</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Neighbourhood Traffic Management Plan ▪ Other. WSP would evaluate the operation of the study intersections using Performance Evaluation Requirements in Appendix C of the City TIS guidelines. 	<p>2.3.23</p>
<p>Safety Analysis (any special issues)</p>	<ul style="list-style-type: none"> ▪ WSP will review sightlines at critical locations and prepare a pavement marking and signage plan. 	<p>2.3.25</p>
<p>Site Access and Circulation (design vehicles)</p>	<ul style="list-style-type: none"> ▪ P-Full Size <input type="checkbox"/> Light Single Unit Truck (LSU) ▪ Medium Single Unit Truck (MSU) <input type="checkbox"/> Heavy Single Unit Truck (HSU) ▪ Pumper Fire Truck <input type="checkbox"/> WB-20 Tractor Semi-Trailer Truck <input type="checkbox"/> Other ▪ Peel Region waste collection vehicle. 	<p>2.3.26</p>
<p>Impacts During Construction (any special issues)</p>	<ul style="list-style-type: none"> ▪ We propose that a traffic management plan during construction be prepared as part of SPA. 	<p>2.3.27</p>

Description	Information	Section Reference
Step 3 – Forecasting		
Growth Rate	<ul style="list-style-type: none"> ▪ Obtained from City, Region and MTO ▪ Review historical traffic counts <input type="checkbox"/> Travel demand forecasts <input type="checkbox"/> Proposed Growth Rate: _____ 	2.3.15
Site Trip Generation	<ul style="list-style-type: none"> ▪ 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	<ul style="list-style-type: none"> <input type="checkbox"/> Internal capture reductions for mixed-use developments <input type="checkbox"/> Pass-by reductions ▪ Other. Modal split reductions derived from Transportation Tomorrow Survey (TTS) data, as applicable. 	2.3.19
Trip Distribution	<ul style="list-style-type: none"> ▪ Local traffic patterns ▪ TTS <input type="checkbox"/> Travel demand model <input type="checkbox"/> Population and employment distribution <input type="checkbox"/> Market analysis of catchment area <input type="checkbox"/> Other _____ 	2.3.20
Trip Assignment	<ul style="list-style-type: none"> ▪ Local traffic patterns ▪ Shortest distance ▪ Site layout, access design and logical routing ▪ Existing turning movements <input type="checkbox"/> Other _____ 	2.3.21
Transportation Demand Management Plan		
Format	<ul style="list-style-type: none"> ▪ Within a TIS Report <input type="checkbox"/> Standalone 	3.2.1
Type of Transportation Demand Management Plan	<ul style="list-style-type: none"> ▪ TDM Statement <input type="checkbox"/> TDM Scheme 	3.2.2
Pedestrian Circulation Plan		
Format	<ul style="list-style-type: none"> ▪ Within a TIS Report <input type="checkbox"/> Standalone 	4.2.1
Additional Comments		

WSP will complete a thorough review of the City's By-law requirements relative to the proposed parking supply for the development.

Based on our preliminary review, the residential and visitor parking supply for the mid-rise building and the residential parking supply for the townhouses meet the Zoning By-law requirements. There is a minor parking deficiency in the visitor parking supply for the townhouse units relative to the Zoning By-law requirements (0.24 vs. 0.25).

We will provide commentary on the appropriateness of the proposed supply, which may be based on:

- Area non-automobile transportation context, including cycling, walking, and transit.
- Planned non-automobile transportation improvements in the area and their anticipated impact on automobile usage.
- Other approved developments in the area with the same or lower visitor parking rate (if any).
- Transportation Demand Management plan.

RE: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

From Natalie Fan <Natalie.Fan@mississauga.ca>

Date Mon 3/16/2026 3:48 PM

To Lukezic, David <David.Lukezic@wsp.com>; Azari, Kian <Kian.Azari@wsp.com>

Cc Trans Projects <Trans.Projects@mississauga.ca>

 1 attachment (361 KB)

Appendix B Pre-Study Consultation Checklist - 2155 Leanne Blvd_Approved.pdf;

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Good afternoon,

Please find attached the approved Pre-Study Consultation Checklist (ToR) for the proposed development, which encompasses City comments. Other items to note:

- **Certification Form** - The Transportation Consultant must complete, sign, and seal (if appropriate) the attached Certification Form from the City's TIS Guidelines (2022) and append the document to the report to ensure compliance with qualification requirements. The TIS Guidelines can be found at <https://www.mississauga.ca/wp-content/uploads/2023/03/CMississauga-TIS-Guidelines-Version-5.1-Dec-2022.pdf> . It must be ensured that the report conforms to the City's TIS Guidelines.
- **Growth Rates** - Please contact Tyler Xuereb from the City's Transportation Planning Section (tyler.xuereb@mississauga.ca, Ext. 4783) to confirm growth rates and/or obtain traffic data for the study area roadways. Please include the correspondence with the city confirming the growth rates in the TIS appendices.
- **Traffic Data** - Please contact to William Wright from the City's Transportation Planning Section (William.Wright@mississauga.ca, Ext. 3221) to obtain traffic data for the study area roadways. **Please include the correspondence with the city confirming the traffic data in the TIS appendices.**
- **Signal Timing Plans** - Signal timing plans for signalized intersections under the City's jurisdiction can be obtained dependant on signal location:
 - Please contact Dennis Shaw (Dennis.Shaw@mississauga.ca, Ext. 3107).
 - **Please include the correspondence with the city confirming the timing plans in the TIS appendices.**
- **ToR Document and Correspondence** - Please include the ToR approved by the city in the TIS appendices as well as any relevant additional correspondence with Traffic Planning staff, if applicable.

Thank you,



Natalie Fan, P.Eng.

Traffic Planning Coordinator

905-615-3200 Ext. 5089

Natalie.Fan@mississauga.ca

From: Lukezic, David <David.Lukezic@wsp.com>
Sent: Wednesday, March 11, 2026 11:31 AM
To: Kate Vassilyev <Kate.Vassilyev@mississauga.ca>; catherine.barnes@peelregion.ca;
graham.routledge@ontario.ca
Cc: Azari, Kian <Kian.Azari@wsp.com>
Subject: [EXTERNAL] 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi -

WSP Canada Inc. (WSP) has been retained to complete a Traffic Impact Study (TIS) in support of a proposed development to be located at 2155 Leanne Boulevard, in the City of Mississauga. The TIS would be used as part of the Zoning By-law Amendment (ZBA) and Official Plan Amendment (OPA) submission.

The proposed Terms of Reference (TOR) for this study is attached. WSP also completed the Pre-Study Consultation Checklist - Appendix B of the City's TIS Guidelines.

We would appreciate it if a response to the proposed TOR could be provided by Wednesday, March 18, 2026.

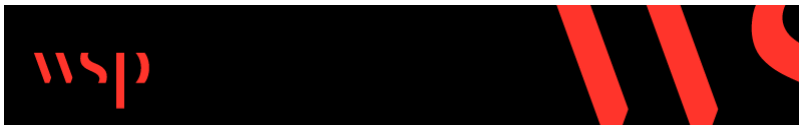
Thanks

David Lukezic, M.Eng., LEL, RPP
Senior Project Manager
Transportation Planning and Science

T +1 289-982-4742

WSP
150 Commerce Valley Drive West
Thornhill, ON L3T 7Z3

wsp.com



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-LAEmHhHzdJzBITWfa4Hgs7pbKI

Description	Information	Section Reference
Transportation Impact Assessment		
Step 1 – Screening		
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 type="checkbox"/> Other: _____	2.3.5
Screening Criteria	<input 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 type="checkbox"/> Access Review <input type="checkbox"/> No Additional Study Required	2.2.1
Step 2 – Scoping		
Study Area (intersections to be analyzed) Note: The Transportation Consultant is responsible to identify any further intersections impacted as the study progresses.		2.3.8
Horizon Years	<input type="checkbox"/> 5 years from date of TIS <input type="checkbox"/> Interim years _____ <input type="checkbox"/> Other: _____	2.3.9
Analysis Periods	<input type="checkbox"/> AM weekday peak hour of adjacent roadway <input 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)		2.3.13
Existing Transportation Conditions	<input type="checkbox"/> City data sources <input type="checkbox"/> New data collection _____ <input type="checkbox"/> Other: _____	2.3.14

Description	Information	Section Reference
Planned Network Improvements (with timing)		2.3.16
Other Planned Developments (per City's Website)		2.3.17
Identification of Mitigation Improvement Measures	<input type="checkbox"/> Neighbourhood Traffic Management Plan <input type="checkbox"/> Other: _____	2.3.23
Safety Analysis / Access Review Details (potential safety issues including but not limited to)	<input type="checkbox"/> Sight line analysis <input type="checkbox"/> Corner clearance <input type="checkbox"/> Access conflicts <input type="checkbox"/> Clear throat <input type="checkbox"/> Driveway spacing (tangent separation, adjacent driveways, etc.) <input type="checkbox"/> Other: _____	2.3.25 2.3.26
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 type="checkbox"/> Heavy Single Unit Truck (HSU) <input type="checkbox"/> Pumper Fire Truck <input type="checkbox"/> WB-20 Tractor Semi-Trailer Truck <input type="checkbox"/> Peel Region Waste Collection Truck <input type="checkbox"/> Other: _____	2.3.26
Impacts During Construction (any special issues)		2.3.27
Step 3 – Forecasting		
Growth Rate	<input type="checkbox"/> Obtained from City <input type="checkbox"/> Historical Traffic Counts <input type="checkbox"/> Travel Demand Forecasts <input type="checkbox"/> Proposed Growth Rate: _____	2.3.15

Description	Information	Section Reference
Site Trip Generation	<input type="checkbox"/> ITE Trip Generation Manual <input type="checkbox"/> "First Principles" <input type="checkbox"/> Observed Rates from Similar Developments in Area <input type="checkbox"/> Observed Rates from Subject Site <input type="checkbox"/> Other: _____	2.3.19
Trip Reductions	<input type="checkbox"/> Internal Capture Reductions for Mixed Use Development <input type="checkbox"/> Non-Auto Mode Split <input type="checkbox"/> Pass-by Reductions <input type="checkbox"/> Other: _____	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 type="checkbox"/> Other: _____	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 type="checkbox"/> Other: _____	2.3.21
Transportation Demand Management Plan		
Format	<input type="checkbox"/> Within a TIA Report <input type="checkbox"/> Standalone	3.2.1
Type of Transportation Demand Management Plan	<input type="checkbox"/> TDM Statement <input type="checkbox"/> TDM Scheme	3.2.2
Pedestrian Circulation Plan		
Format	<input type="checkbox"/> Within a TIA Report <input type="checkbox"/> Standalone	4.2.1
Community Impacts Section		
Format (projected traffic impacts and response to traffic-related community feedback)	<input type="checkbox"/> Within a TIA Report <input type="checkbox"/> Other: _____	2.3.28 2.3.22
Additional Comments		
<div style="border: 1px solid black; height: 100px;"></div>		

RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

From Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Date Fri 3/27/2026 10:52 AM

To Azari, Kian <Kian.Azari@wsp.com>

Cc Lukezic, David <David.Lukezic@wsp.com>

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Hi Kian,

Below are the recommended growth rates to be used along North Sheridan Way, South Sheridan Way, and Leanne Boulevard. These rates are compounded annually from existing to 2031 and 2031 to 2041.

North Sheridan Way

Compounded Annual Growth from Existing to 2031		
	EB	WB
AM Peak	1.5%	1.5%
PM Peak	1.5%	1.5%

Compounded Annual Growth from 2031 to 2041		
	EB	WB
AM Peak	1.5%	1.5%
PM Peak	1.0%	1.0%

South Sheridan Way

Compounded Annual Growth from Existing to 2031		
--	--	--

	EB	WB
AM Peak	1.5%	1.5%
PM Peak	1.5%	1.5%

Compounded Annual Growth from 2031 to 2041		
	EB	WB
AM Peak	1.5%	1.5%
PM Peak	0.5%	0.5%

Leanne Boulevard

Compounded Annual Growth from Existing to 2031		
	NB	SB
AM Peak	1.5%	1.5%
PM Peak	0.5%	0.5%

Compounded Annual Growth from 2031 to 2041		
	NB	SB
AM Peak	0.5%	0.5%
PM Peak	0.5%	0.5%

Regards,



Tyler Xuereb

Transportation Planning Analyst
 T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
 Infrastructure Planning and Engineering Services Division

From: Azari, Kian <Kian.Azari@wsp.com>
Sent: Tuesday, March 17, 2026 2:20 PM

To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Subject: [EXTERNAL] RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

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Hi Tyler,

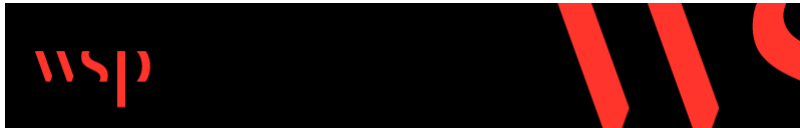
Our planned horizon years for the study are 2031, 2036, and 2041.

Regards,

Kian Azari, P.Eng.,
Transportation Engineer

Transportation Planning and Science

T + 1 289-982-4029



150 Commerce Valley Drive West,
Thornhill, Ontario
L3T 7T3 Canada

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Sent: Tuesday, March 17, 2026 2:09 PM

To: Azari, Kian <Kian.Azari@wsp.com>

Subject: RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

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Hi Kian,

Growth rates do not typically get provided until the submission has been reviewed and approved. I can work on the rates but unfortunately will not be able to provide them until everything has been approved.

Could you please provide me with your horizon year.

Regards,

Tyler Xuereb

Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

From: Azari, Kian <Kian.Azari@wsp.com>

Sent: Tuesday, March 17, 2026 2:05 PM

To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>; William Wright <William.Wright@mississauga.ca>

Cc: Lukezic, David <David.Lukezic@wsp.com>

Subject: [EXTERNAL] RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi Tyler,

Thanks for your email.

We have not submitted the TIS yet. We are currently in the initial stages of data collection and background review, and we wanted to confirm the applicable growth rates and any planned improvements before proceeding with the analysis.

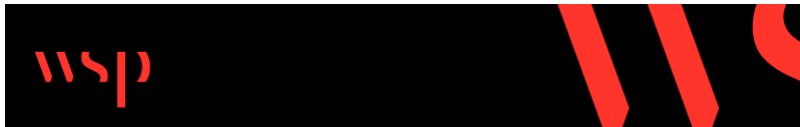
Let me know if you need any additional details.

Regards,

Kian Azari, P.Eng.,
Transportation Engineer

Transportation Planning and Science

T + 1 289-982-4029



150 Commerce Valley Drive West,
Thornhill, Ontario
L3T 7T3 Canada

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Sent: Tuesday, March 17, 2026 2:02 PM

To: Azari, Kian <Kian.Azari@wsp.com>; William Wright <William.Wright@mississauga.ca>

Cc: Lukezic, David <David.Lukezic@wsp.com>

Subject: RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi Kian,

Thank you for your email.

Can you please confirm if you have submitted your TIS to the city for review and if so, have you received comments back?

Thanks,



Tyler Xuereb

Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

From: Azari, Kian <Kian.Azari@wsp.com>

Sent: Tuesday, March 17, 2026 1:58 PM

To: William Wright <William.Wright@mississauga.ca>; Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Cc: Lukezic, David <David.Lukezic@wsp.com>

Subject: [EXTERNAL] Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi William and Tyler,

I hope you are doing well.

WSP is preparing the Traffic Impact Study for the proposed development at 2155 Leanne Boulevard. As part of establishing background traffic conditions, we are seeking the City's direction on the following items:

Growth Rates: Please confirm the appropriate growth rates to be applied along the following corridors:

- Leanne Boulevard
- North Sheridan Way
- South Sheridan Way

Alternatively, if available, please provide AADT for multiple years or historical traffic count data so we can determine corridor-specific growth rates.

Planned Roadway / Intersection Improvements: We are planning to assess future conditions for 2031, 2036, and 2041. If applicable, please provide a list of planned or programmed roadway or intersection improvements within the study area for these horizon years.

Thank you in advance, and please let me know if any additional information is needed.

Regards,

Kian Azari, P.Eng.,
Transportation Engineer

Transportation Planning and Science

T + 1 289-982-4029



150 Commerce Valley Drive West,
Thornhill, Ontario
L3T 7T3 Canada

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-LAEHhHdzJzBITWfa4Hgs7pbKI

RE: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

From Nunes, Paul (MTO) <Paul.Nunes@ontario.ca>

Date Fri 3/20/2026 8:44 AM

To Lukezic, David <David.Lukezic@wsp.com>

Cc Azari, Kian <Kian.Azari@wsp.com>; Pillay, David (MTO) <David.Pillay@ontario.ca>

 3 attachments (870 KB)

LEANNE RD @ NORTH SHERIDAN WAY.pdf; 2155 Leanne Blvd TIS - TOR.pdf; HOMB - TO-2023-01 TIS Guideline.pdf;

Good morning David,

Re: Terms of Reference for a Traffic Impact Study – Request for Comments
Proposed residential development
2155 Leanne Boulevard, Mississauga, ON. (**QEW**)
Related file: MTO Pre-Consultation No.: 2026-20T-000385

After review of the above-described TOR, and in accordance with the PTHIA, the MTO offers the following comments:

Operational Traffic Engineering:

- - Signal timing plan request would need to go to the city of Mississauga as the intersections in question are either owned by the city or operated and maintained by the city for the ministry.

Please ensure you are using MTO TIS Guidelines/policy dated 2023 (attached).

Traffic Data Collection:

- Attached is other MTO data.
- Any data collected for the TIS must be by a RAQS qualified company/consultant. Winter counts are not accepted. Counts should not be completed on a holiday or holiday week.

Horizon years and Existing Traffic Operations:

- Acceptable.

Future Background Traffic Operations:

- 2.0% growth rate must be used for MTO infrastructure.

Trip Generation and Assignment:

- Please refer to MTO TIS guidelines/policy, page 16 for Trip Distribution/Assignment. Please use ITE 12th edition to determine trips.
- TOR indicates '*Trips from the existing site will be subtracted from the site trip generation calculations.*' Trips from the existing site should not be subtracted from the new site trip generation. This is a new site (housing) with different trips from current (retail), as well as a different access configuration at Erin Mills.

Future Total Traffic Operations:

- Please refer to MTO TIS guidelines/policy.

Additional comments:

- MTO require the submission of a full TIS (following MTO TIS guidelines and by a RAQS qualified consultant) to assess the future impact of the proposed development to identify if there are any warranted highway/road improvements. Digital Synchro version 12 files are required at the time of submission. Both editable/printable and locked/stamped and signed by P.Eng, version of the TIS is required. MTO will not review a TIS/TIB completed by a company that is not RAQS qualified, or that includes counts/data that is collected by a non RAQS qualified company. ITE 12th edition is the latest version and must be used.
- The consultant is responsible for thoroughly reading and adhering to the MTO TIS guidelines. If any reasonable requirements are missed, it is the consultant's obligation to provide them. The absence of a specific instruction in the TOR does not negate the necessity of fulfilling the reasonable requirement.
- Any data collected for the TIS must be by a RAQS qualified company/consultant. Counts from the local municipality or RAQS qualified consultant collection counts may be considered acceptable, however, only data collected within 18 months of the submission date for the study will be accepted. It is the responsibility of the RAQS qualified consultant to ensure the proper data is used (ex. season or non MTO) and seasonal factors applied as appropriate. Winter counts are typically not accepted. It is the consultant's responsibility to update and use proper data.
- Please refer to MTO TIS guidelines/policy, page 16 for Trip Distribution/Assignment.
- A summary of the key findings on the transportation impact of the proposed development on the highway corridor shall be presented, along with a summary of the recommended improvements. Any improvements identified in the TIS as warranted within the first five years of the development's operation shall be constructed prior to opening day. Please note that 'monitoring' is not an acceptable recommendation.
- Use simple (linear) growth rate for volume projections.
- Use a 2.0% growth rate for QEW ramps.
- A site plan and site circulation plan is required to ensure that internal blockage does not occur or cause vehicle backups on the roadway. Include distances.
- As part of the TIS, a right turn auxiliary lane analysis must be included to determine if mitigation measures are required at study intersections using TAC and MTO TAC supplemental, specifically the right-in at Erin Mills.
- Capacity analysis shall be performed at all proposed site access points and intersections in the study network in accordance with the methodology described in the latest edition of the Highway Capacity Manual (HCM). At signalized intersections, movements with a volume/capacity (v/c) ratio greater than 0.85 are deemed to be "critical" in terms of operations. Movements that experience a v/c ratio of 0.85 or greater shall be evaluated for possible operational improvements. For ramps, a v/c ratio for terminal ramp approaches with a value greater than 0.75 would be deemed critical and shall be evaluated for possible operational improvements.
- All intersection capacity analysis on impacted intersections or interchanges within MTO facilities must follow MTO/TAC protocols. When evaluating impacts at intersections please refer to the TAC's Geometric Design Guide for Canadian Roads, MTO Design Supplement for TAC's Geometric Design Guide for Canadian Roads (http://www.mto.gov.on.ca/phmpmbp/Reference%20Materials/HwyDes-MTO_DS_TAC_GDG-April2020-Final.pdf) and the OTM Books.)
- Use the guiding principles included in the ITE's 12th edition Trip Generation Handbook for the selection between rates and equations.
- The need for geometric improvements shall be reviewed at all locations in the study area and for each proposed development stage. The TIS shall clearly identify transportation

impacts by movement, the transportation system improvements that are needed to mitigate these impacts, and the timing of any recommended improvements. A schematic representation of all geometric improvements shall be included as part of the TIS, identifying lane arrangements and intersection improvements for each horizon year.

- Queue and storage lengths for left turn and through movements for signalized intersections under MTO jurisdiction need to be calculated using the arrival rate method explained on MTO's Signal Timing Policy. For queues/storage lengths for right turn movements please refer to Chapter 9 of TAC's Geometric Design Guide for Canadian Roads. Queue assessment shall include a review to determine if the thru queues impede access to auxiliary lanes or if they reach the adjacent intersection. For LT and thru, must convert trucks to passenger vehicles, use factor of 2.0. Provide the results in tabular form. For thru and left turn queues include: peak period, movement, volume, cycle length, %trucks, pcp, m value, number of vehicles and total length. For right turn storage length include: peak period, volume, cycle length, design speed, total length.
- Signal timing optimization can improve operations; however, the resulting settings should still be consistent with our Signal Timing Policy. For example: the timing settings cannot be adjusted to favour the sideroad over the highway.
- Design speed is typically 20km/hr over posted speed.

Please do not hesitate to contact me if you have any questions.

Thanks,

Paul Nunes

Senior Project Manager (Peel Region & Hwy 413) | Corridor Management, Central Region West | Operations Division

Ministry of Transportation | Ontario Public Service

416-270-3108 | paul.nunes@ontario.ca



Taking pride in strengthening Ontario, its places and its people

From: Lukezic, David <David.Lukezic@wsp.com>

Sent: March 13, 2026 9:18 AM

To: Nunes, Paul (MTO) <Paul.Nunes@ontario.ca>

Cc: Azari, Kian <Kian.Azari@wsp.com>; Hajjar, Nicole (She/Her) (MTO) <Nicole.Hajjar@ontario.ca>; Pillay, David (MTO) <David.Pillay@ontario.ca>

Subject: Re: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

CAUTION -- EXTERNAL E-MAIL - Do not click links or open attachments unless you recognize the sender.

Hi Paul,

Thank you for your email and confirmation.

Thanks

David Lukezic, M.Eng., LEL, RPP
Senior Project Manager
Transportation Planning and Science

T +1 289-982-4742

WSP
150 Commerce Valley Drive West
Thornhill, ON L3T 7Z3

wsp.com



From: Nunes, Paul (MTO) <Paul.Nunes@ontario.ca>
Sent: Friday, March 13, 2026 8:32 AM
To: Lukezic, David <David.Lukezic@wsp.com>
Cc: Azari, Kian <Kian.Azari@wsp.com>; Hajjar, Nicole (She/Her) (MTO) <nicole.hajjar@ontario.ca>; Pillay, David (MTO) <David.Pillay@ontario.ca>
Subject: RE: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

Good morning David,

Re: Terms of Reference for a Traffic Impact Study – Request for Comments
Proposed residential development
2155 Leanne Boulevard, Mississauga, ON. (**QEW**)
Related file: MTO Pre-Consultation No.: 2026-20T-000385

Confirming receipt of the subject TIS Terms of Reference, and I'll get back to you with comments from the MTO's Traffic Office as quick as we can.

Thanks,

Paul Nunes

Senior Project Manager (Peel Region & Hwy 413) | Corridor Management, Central Region West |
Operations Division
Ministry of Transportation | Ontario Public Service
416-270-3108 | paul.nunes@ontario.ca



Taking pride in strengthening Ontario, its places and its people

From: Hajjar, Nicole (She/Her) (MTO) <Nicole.Hajjar@ontario.ca>
Sent: March 12, 2026 4:45 PM
To: Lukezic, David <David.Lukezic@wsp.com>; Hamdani, Hashim <Hashim.Hamdani@peelregion.ca>; Barnes, Catherine <catherine.barnes@peelregion.ca>; Kate.Vassilyev@mississauga.ca
Cc: Azari, Kian <Kian.Azari@wsp.com>; Xiao, Kaiwen <kaiwen.xiao@peelregion.ca>; Nunes, Paul (MTO) <Paul.Nunes@ontario.ca>
Subject: RE: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

Hi David,

Thank you for your email. Zoning By-law Amendment (ZBA) and Official Plan Amendment (OPA) submissions are reviewed by MTO Senior Project Managers and the TOR/ TIS

submissions will be circulated by the Municipality for review. MTO will follow up with comments to the Municipality in due course.

If you have any further questions, please feel welcome to ask.

Kind regards,

Nicole Hajjar (She/Her)

Corridor Management Officer | Central Region West | Operations Division

Ministry of Transportation | Ontario Public Service

416-303-1687 | Nicole.Hajjar@ontario.ca



Taking pride in strengthening Ontario, its places and its people

Please note: As part of providing [accessible customer service](#), if you have any accommodation needs, require communication supports, or alternate formats please let me know.

From: Lukezic, David <David.Lukezic@wsp.com>

Sent: Wednesday, March 11, 2026 2:09 PM

To: Hamdani, Hashim <Hashim.Hamdani@peelregion.ca>; Barnes, Catherine <catherine.barnes@peelregion.ca>; Kate.Vassilyev@mississauga.ca

Cc: Azari, Kian <Kian.Azari@wsp.com>; Xiao, Kaiwen <kaiwen.xiao@peelregion.ca>; Hajjar, Nicole (She/Her) (MTO) <Nicole.Hajjar@ontario.ca>

Subject: Re: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

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Hi Hashim,

Not a problem. Thanks for your note.

@Nicole: I am attaching the proposed terms of reference for the TIS for a proposed development at 2155 Leanne Boulevard, in the City of Mississauga. Earlier today, I sent it to Graham Routledge and received an automatic reply that he was not found at MTO. The Applicant provided me with your contact information.

Thanks

David Lukezic, M.Eng., LEL, RPP
Senior Project Manager
Transportation Planning and Science

T +1 289-982-4742

WSP
150 Commerce Valley Drive West
Thornhill, ON L3T 7Z3

wsp.com



From: Hamdani, Hashim <Hashim.Hamdani@peelregion.ca>
Sent: Wednesday, March 11, 2026 12:49 PM
To: Lukezic, David <David.Lukezic@wsp.com>; Barnes, Catherine <catherine.barnes@peelregion.ca>;
Kate.Vassilyev@mississauga.ca <Kate.Vassilyev@mississauga.ca>
Cc: Azari, Kian <Kian.Azari@wsp.com>; Xiao, Kaiwen <kaiwen.xiao@peelregion.ca>
Subject: RE: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

Hi David,

Thank you for reaching out, we will review the terms of reference and get back to you.

Regards,

Hashim Ali Hamdani

Supervisor

Transportation Development

Transportation Division, Public Works

10 Peel Centre Drive Suite B, 4th Floor

Brampton, ON L6T 4B9

905-791-7800 Ext. 7852

905-872-2353 (cell)



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From: Lukezic, David <David.Lukezic@wsp.com>
Sent: March 11, 2026 11:55 AM
To: Barnes, Catherine <catherine.barnes@peelregion.ca>; Kate.Vassilyev@mississauga.ca
Cc: Azari, Kian <Kian.Azari@wsp.com>; Hamdani, Hashim <Hashim.Hamdani@peelregion.ca>
Subject: Re: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

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Hi Catherine,

Thanks for your email.

@Hashim: please find attached the TOR that were included in my previous email.

Also, does anyone have the MTO contact for this area? I received an automatic reply that Graham Routledge was not found at MTO. He used to be the Corridor Management Senior Project Manager.

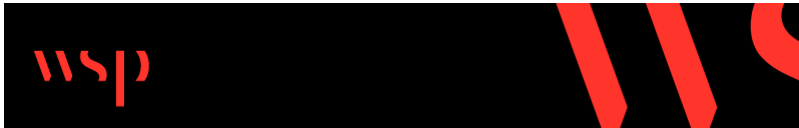
Thanks

David Lukezic, M.Eng., LEL, RPP
Senior Project Manager
Transportation Planning and Science

T +1 289-982-4742

WSP
150 Commerce Valley Drive West
Thornhill, ON L3T 7Z3

wsp.com



From: Barnes, Catherine <catherine.barnes@peelregion.ca>
Sent: Wednesday, March 11, 2026 11:44 AM
To: Lukezic, David <David.Lukezic@wsp.com>;
Kate.Vassilyev@mississauga.ca <Kate.Vassilyev@mississauga.ca>;
graham.routledge@ontario.ca <graham.routledge@ontario.ca>
Cc: Azari, Kian <Kian.Azari@wsp.com>; Hamdani, Hashim <Hashim.Hamdani@peelregion.ca>
Subject: RE: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

Hi David,

I am no longer working in the Development team – please reach out to Hashim Hamdani, cc'd on this email for Peel Region comments.

Thank you,

Please note, I am no longer working with the Transportation Development team. Please reach out to Hashim Hamdani (Hashim.Hamdani@peelregion.ca) for any inquires related to Transportation Development.

Catherine Barnes

Region of Peel

Project Manager, Roads Design Construction

Transportation Division, Public Works.

10 Peel Centre Drive, Suite B, 4th Floor

Brampton, ON , L6T 4B9

Please contact me via email as I am out of the office working remotely.



Please consider the environment before printing this email.

Our working hours may be different. Please do not feel obligated to reply outside of your working hours.

The Region of Peel is situated on the Treaty Lands and Territory of the Mississaugas of the Credit First Nation as well as the traditional territory of the Anishinabeg, Huron-Wendat and Haudenosaunee peoples.

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From: Lukezic, David <David.Lukezic@wsp.com>

Sent: March 11, 2026 11:31 AM

To: Kate.Vassilyev@mississauga.ca; Barnes, Catherine <catherine.barnes@peelregion.ca>; graham.routledge@ontario.ca

Cc: Azari, Kian <Kian.Azari@wsp.com>

Subject: 2155 Leanne Boulevard Traffic Impact Study Terms of Reference

CAUTION: EXTERNAL MAIL. DO NOT CLICK ON LINKS OR OPEN ATTACHMENTS YOU DO NOT TRUST.

Hi -

WSP Canada Inc. (WSP) has been retained to complete a Traffic Impact Study (TIS) in support of a proposed development to be located at 2155 Leanne Boulevard, in the City of Mississauga. The TIS would be used as part of the Zoning By-law Amendment (ZBA) and Official Plan Amendment (OPA) submission.

The proposed Terms of Reference (TOR) for this study is attached. WSP also completed the Pre-Study Consultation Checklist - Appendix B of the City's TIS Guidelines.

We would appreciate it if a response to the proposed TOR could be provided by Wednesday, March 18, 2026.

Thanks

David Lukezic, M.Eng., LEL, RPP

Senior Project Manager

Transportation Planning and Science

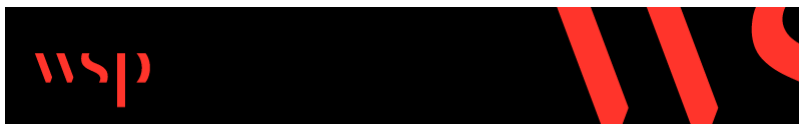
T +1 289-982-4742

WSP

150 Commerce Valley Drive West

Thornhill, ON L3T 7Z3

wsp.com



APPENDIX

B Traffic Data



Horizon Data Services Ltd

(416) 840-6619 nhyree@gmail.com

Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 1

Groups Printed- Light - Heavy

Start Time	Erin Mills Pkwy From North				Fowler Dr From East				Erin Mills Pkwy From South				Leanne Blvd From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	6	267	6	279	17	6	38	61	22	249	4	275	7	6	14	27	642
07:15 AM	7	294	7	308	10	11	37	58	17	318	7	342	9	2	7	18	726
07:30 AM	9	312	12	333	15	15	51	81	23	319	8	350	5	6	7	18	782
07:45 AM	19	438	14	471	17	13	41	71	29	425	5	459	20	7	13	40	1041
Total	41	1311	39	1391	59	45	167	271	91	1311	24	1426	41	21	41	103	3191
08:00 AM	27	362	19	408	28	19	52	99	31	380	18	429	16	15	7	38	974
08:15 AM	39	397	8	444	17	29	36	82	31	443	10	484	17	13	11	41	1051
08:30 AM	34	381	16	431	18	18	43	79	34	383	10	427	16	20	16	52	989
08:45 AM	32	362	16	410	16	19	33	68	16	425	15	456	14	7	18	39	973
Total	132	1502	59	1693	79	85	164	328	112	1631	53	1796	63	55	52	170	3987
09:00 AM	34	336	15	385	14	14	28	56	19	366	14	399	10	13	8	31	871
09:15 AM	17	287	22	326	13	19	40	72	23	304	16	343	15	11	9	35	776
09:30 AM	16	240	14	270	17	12	32	61	29	319	13	361	7	9	7	23	715
09:45 AM	15	274	21	310	18	9	28	55	27	314	12	353	8	7	6	21	739
Total	82	1137	72	1291	62	54	128	244	98	1303	55	1456	40	40	30	110	3101
04:00 PM	11	291	25	327	21	12	37	70	42	461	26	529	8	27	21	56	982
04:15 PM	13	268	16	297	19	10	23	52	35	463	36	534	9	28	23	60	943
04:30 PM	9	274	28	311	28	15	33	76	36	499	12	547	14	21	30	65	999
04:45 PM	14	305	19	338	9	12	33	54	42	433	32	507	10	32	26	68	967
Total	47	1138	88	1273	77	49	126	252	155	1856	106	2117	41	108	100	249	3891
05:00 PM	19	264	20	303	23	15	31	69	41	527	36	604	16	53	30	99	1075
05:15 PM	14	261	19	294	14	12	35	61	63	496	27	586	19	35	38	92	1033
05:30 PM	20	272	17	309	16	14	36	66	59	475	32	566	17	31	26	74	1015
05:45 PM	15	314	21	350	18	11	39	68	40	409	30	479	13	15	18	46	943
Total	68	1111	77	1256	71	52	141	264	203	1907	125	2235	65	134	112	311	4066
06:00 PM	9	230	16	255	21	12	43	76	39	425	14	478	15	17	29	61	870
06:15 PM	9	343	21	373	18	9	23	50	30	399	14	443	17	13	21	51	917
06:30 PM	9	268	21	298	34	7	35	76	35	334	13	382	14	5	13	32	788
06:45 PM	14	303	23	340	13	8	39	60	30	297	11	338	13	7	11	31	769
Total	41	1144	81	1266	86	36	140	262	134	1455	52	1641	59	42	74	175	3344

Horizon Data Services Ltd

(416) 840-6619 nhyree@gmail.com

Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 2

Groups Printed- Light - Heavy

	Erin Mills Pkwy From North				Fowler Dr From East				Erin Mills Pkwy From South				Leanne Blvd From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Grand Total	411	7343	416	8170	434	321	866	1621	793	9463	415	10671	309	400	409	1118	21580
Apprch %	5	89.9	5.1		26.8	19.8	53.4		7.4	88.7	3.9		27.6	35.8	36.6		
Total %	1.9	34	1.9	37.9	2	1.5	4	7.5	3.7	43.9	1.9	49.4	1.4	1.9	1.9	5.2	
Light	409	7151	405	7965	423	307	833	1563	763	9229	399	10391	293	391	398	1082	21001
% Light	99.5	97.4	97.4	97.5	97.5	95.6	96.2	96.4	96.2	97.5	96.1	97.4	94.8	97.8	97.3	96.8	97.3
Heavy	2	192	11	205	11	14	33	58	30	234	16	280	16	9	11	36	579
% Heavy	0.5	2.6	2.6	2.5	2.5	4.4	3.8	3.6	3.8	2.5	3.9	2.6	5.2	2.2	2.7	3.2	2.7

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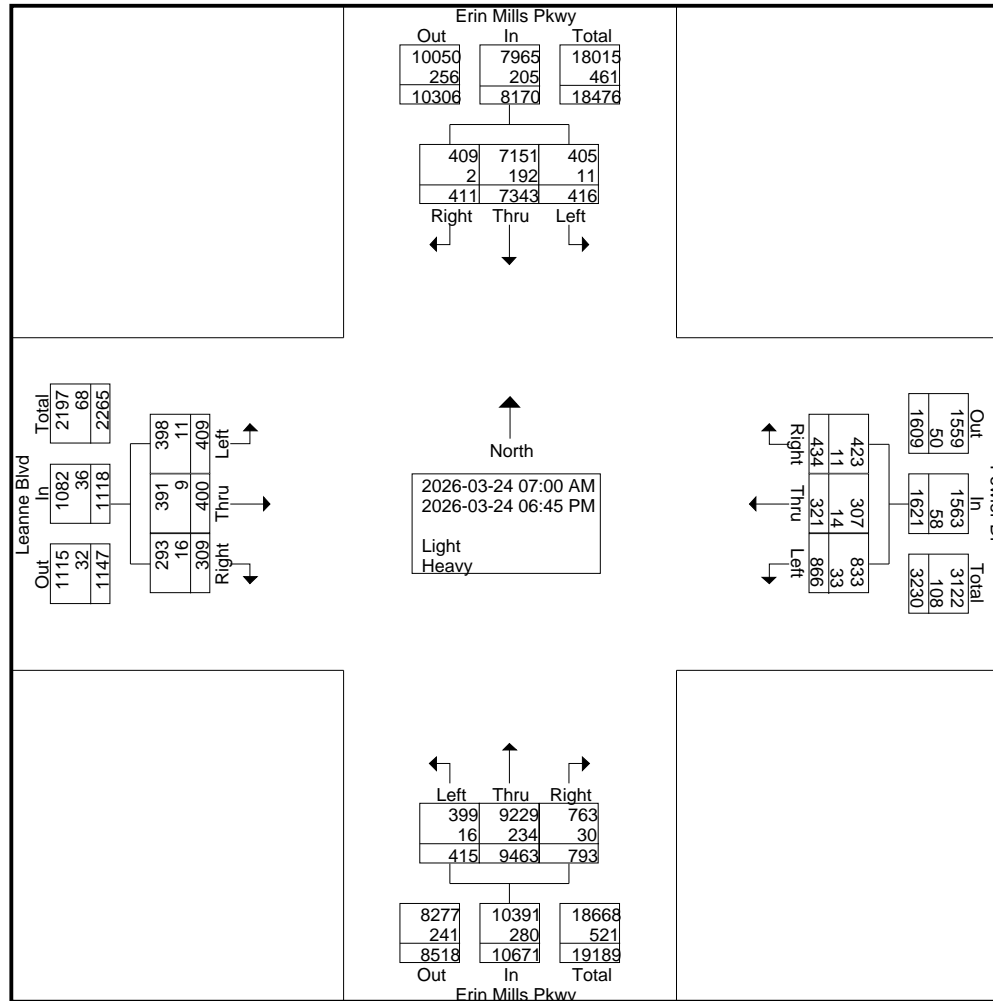
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 3



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Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 4

Start Time	Erin Mills Pkwy From North				Fowler Dr From East				Erin Mills Pkwy From South				Leanne Blvd From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	19	438	14	471	17	13	41	71	29	425	5	459	20	7	13	40	1041
08:00 AM	27	362	19	408	28	19	52	99	31	380	18	429	16	15	7	38	974
08:15 AM	39	397	8	444	17	29	36	82	31	443	10	484	17	13	11	41	1051
08:30 AM	34	381	16	431	18	18	43	79	34	383	10	427	16	20	16	52	989
Total Volume	119	1578	57	1754	80	79	172	331	125	1631	43	1799	69	55	47	171	4055
% App. Total	6.8	90	3.2		24.2	23.9	52		6.9	90.7	2.4		40.4	32.2	27.5		
PHF	.763	.901	.750	.931	.714	.681	.827	.836	.919	.920	.597	.929	.863	.688	.734	.822	.965
Light	119	1529	52	1700	77	71	168	316	111	1588	42	1741	65	52	43	160	3917
% Light	100	96.9	91.2	96.9	96.3	89.9	97.7	95.5	88.8	97.4	97.7	96.8	94.2	94.5	91.5	93.6	96.6
Heavy	0	49	5	54	3	8	4	15	14	43	1	58	4	3	4	11	138
% Heavy	0	3.1	8.8	3.1	3.8	10.1	2.3	4.5	11.2	2.6	2.3	3.2	5.8	5.5	8.5	6.4	3.4

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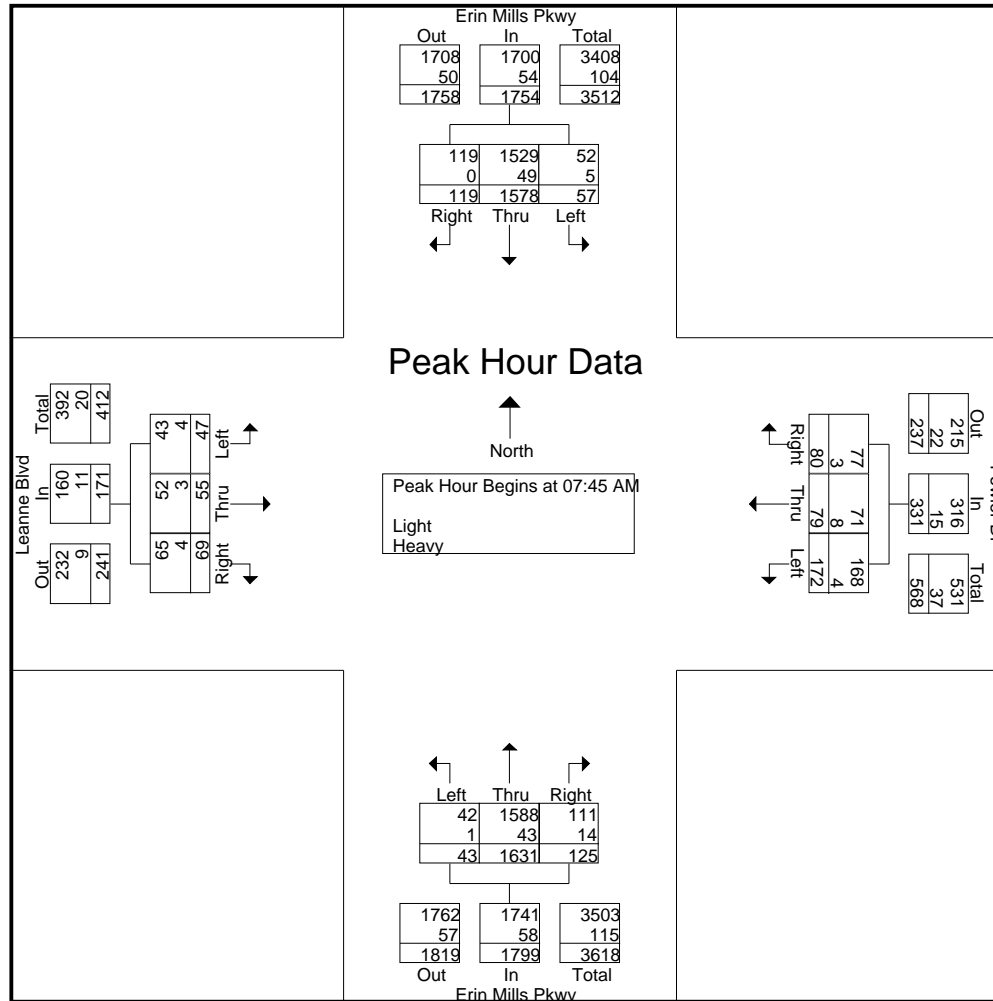
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 5



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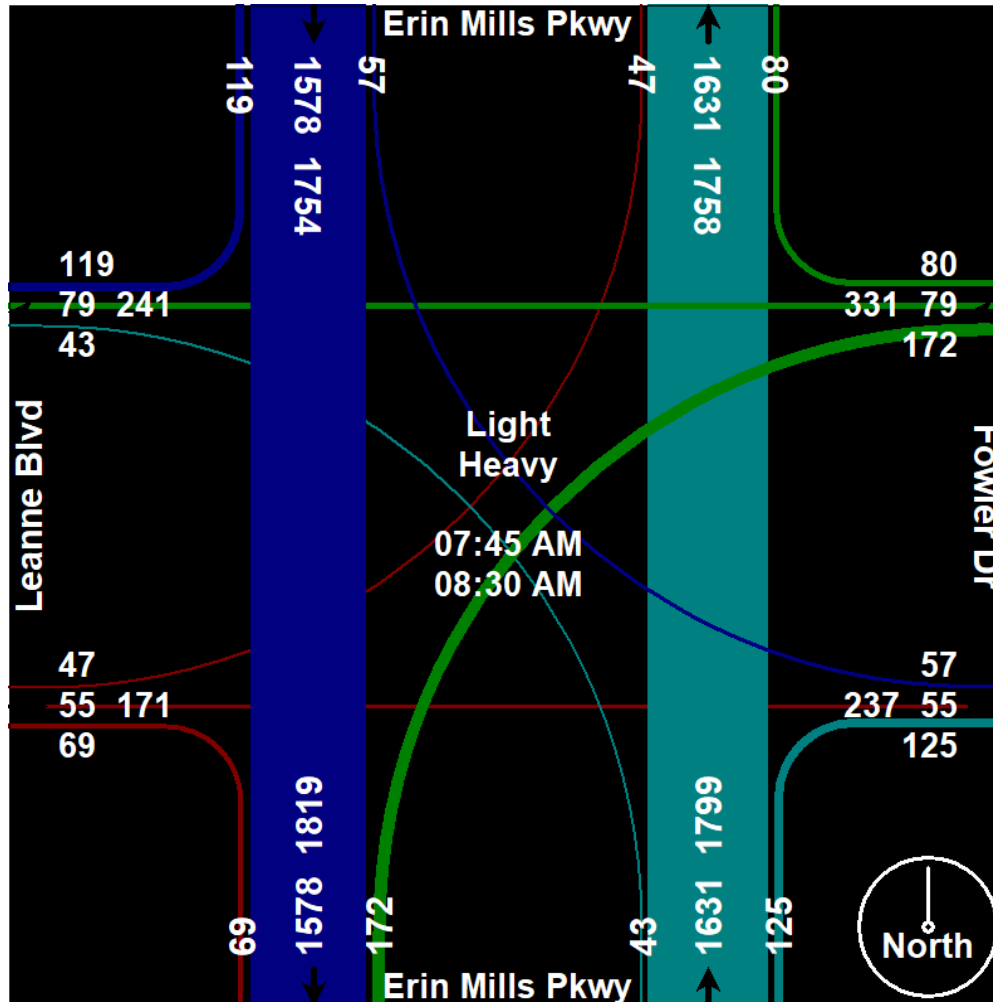
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 6



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Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 7

Start Time	Erin Mills Pkwy From North				Fowler Dr From East				Erin Mills Pkwy From South				Leanne Blvd From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	14	305	19	338	9	12	33	54	42	433	32	507	10	32	26	68	967
05:00 PM	19	264	20	303	23	15	31	69	41	527	36	604	16	53	30	99	1075
05:15 PM	14	261	19	294	14	12	35	61	63	496	27	586	19	35	38	92	1033
05:30 PM	20	272	17	309	16	14	36	66	59	475	32	566	17	31	26	74	1015
Total Volume	67	1102	75	1244	62	53	135	250	205	1931	127	2263	62	151	120	333	4090
% App. Total	5.4	88.6	6		24.8	21.2	54		9.1	85.3	5.6		18.6	45.3	36		
PHF	.838	.903	.938	.920	.674	.883	.938	.906	.813	.916	.882	.937	.816	.712	.789	.841	.951
Light	67	1089	75	1231	61	53	131	245	204	1899	125	2228	60	147	117	324	4028
% Light	100	98.8	100	99.0	98.4	100	97.0	98.0	99.5	98.3	98.4	98.5	96.8	97.4	97.5	97.3	98.5
Heavy	0	13	0	13	1	0	4	5	1	32	2	35	2	4	3	9	62
% Heavy	0	1.2	0	1.0	1.6	0	3.0	2.0	0.5	1.7	1.6	1.5	3.2	2.6	2.5	2.7	1.5

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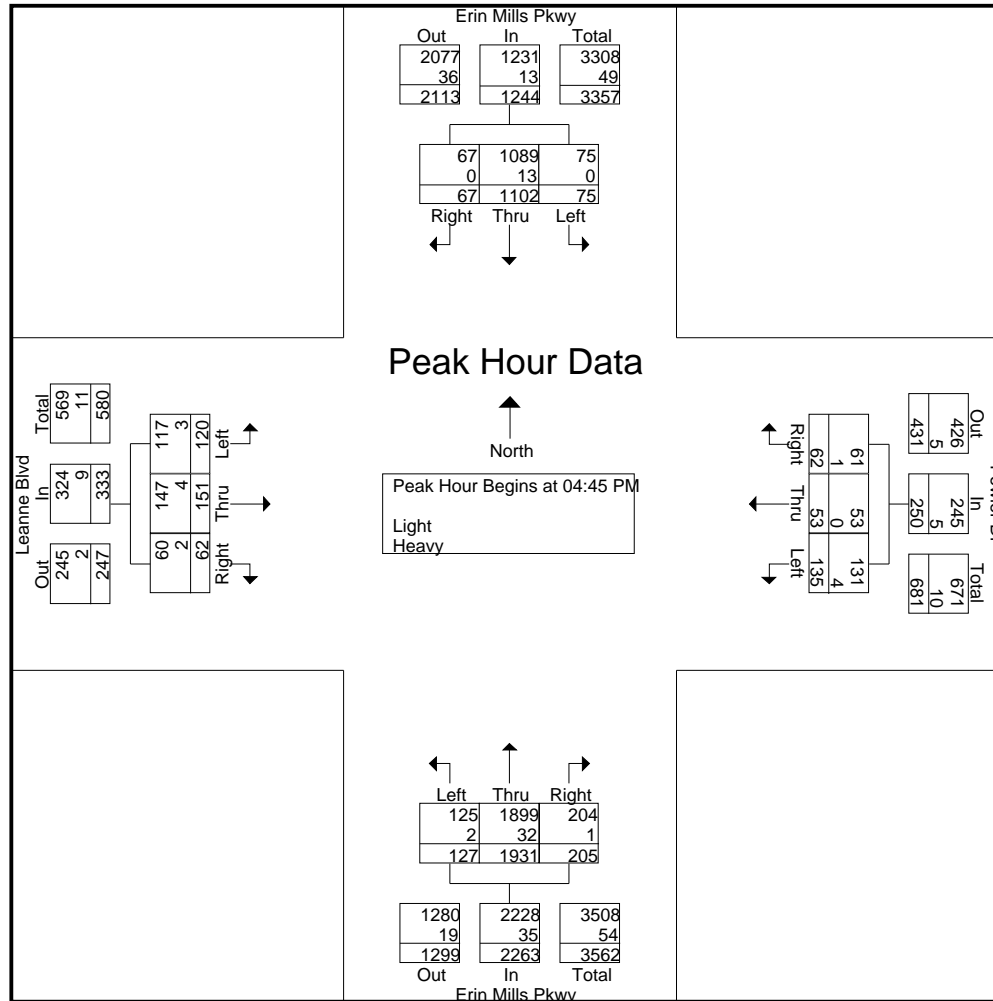
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File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 8



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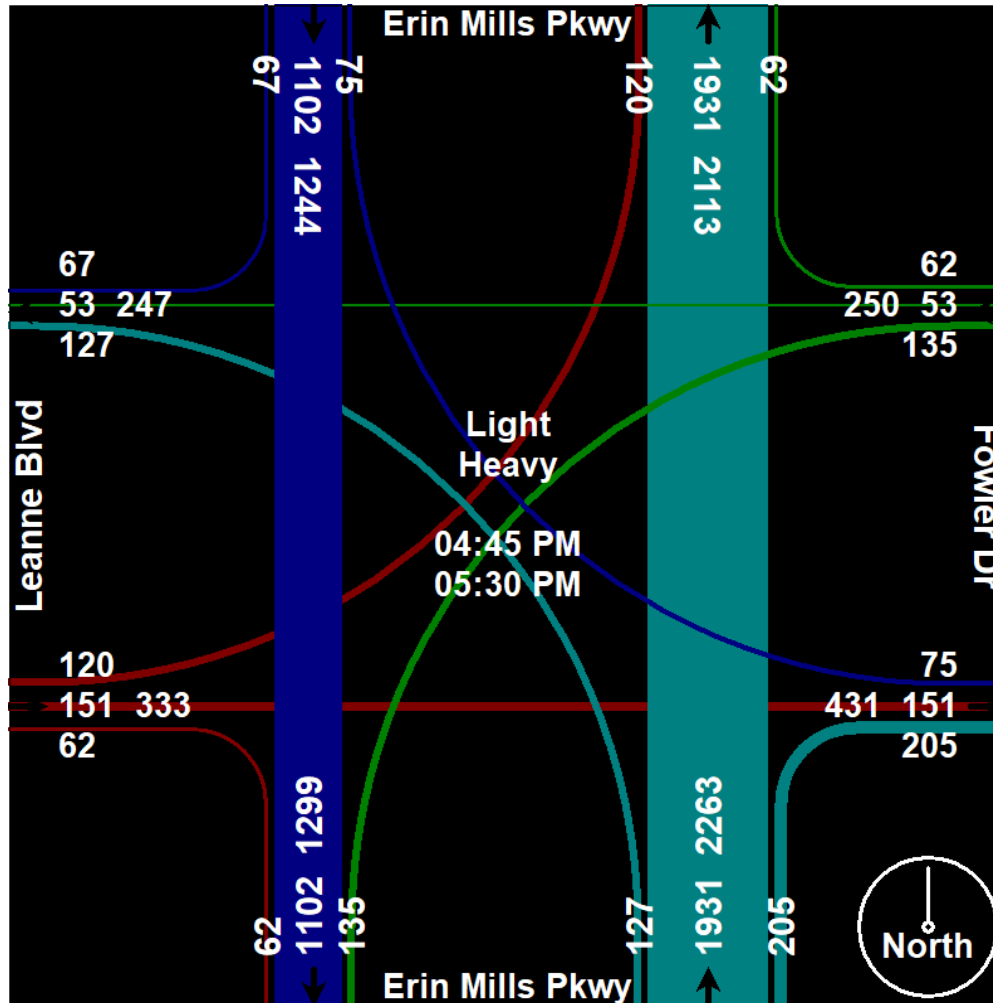
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Leanne Boulevard

Site Code : Loc-1

Start Date : 2026-03-24

Page No : 9



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Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 1

Groups Printed- Light - Heavy

Start Time	Erin Mills Pkwy From North				From East				Erin Mills Pkwy From South				Site Driveway From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	322	0	322	0	0	0	0	0	298	0	298	0	0	0	0	620
07:15 AM	0	329	0	329	0	0	0	0	0	336	0	336	0	0	0	0	665
07:30 AM	0	372	0	372	0	0	0	0	0	398	0	398	0	0	0	0	770
07:45 AM	0	505	0	505	0	0	0	0	0	448	0	448	0	0	0	0	953
Total	0	1528	0	1528	0	0	0	0	0	1480	0	1480	0	0	0	0	3008
08:00 AM	1	419	0	420	0	0	0	0	0	428	0	428	0	0	0	0	848
08:15 AM	0	479	0	479	0	0	0	0	0	499	0	499	0	0	0	0	978
08:30 AM	1	436	0	437	0	0	0	0	0	421	0	421	0	0	0	0	858
08:45 AM	0	430	0	430	0	0	0	0	0	490	0	490	0	0	0	0	920
Total	2	1764	0	1766	0	0	0	0	0	1838	0	1838	0	0	0	0	3604
09:00 AM	0	383	0	383	0	0	0	0	0	366	0	366	0	0	0	0	749
09:15 AM	0	350	0	350	0	0	0	0	0	390	0	390	0	0	0	0	740
09:30 AM	0	283	0	283	0	0	0	0	0	358	0	358	0	0	0	0	641
09:45 AM	0	319	0	319	0	0	0	0	0	370	0	370	0	0	0	0	689
Total	0	1335	0	1335	0	0	0	0	0	1484	0	1484	0	0	0	0	2819
04:00 PM	0	329	0	329	0	0	0	0	0	516	0	516	0	0	0	0	845
04:15 PM	2	309	0	311	0	0	0	0	0	576	0	576	0	0	0	0	887
04:30 PM	3	318	0	321	0	0	0	0	0	557	0	557	0	0	0	0	878
04:45 PM	3	355	0	358	0	0	0	0	0	524	0	524	0	0	0	0	882
Total	8	1311	0	1319	0	0	0	0	0	2173	0	2173	0	0	0	0	3492
05:00 PM	2	324	0	326	0	0	0	0	0	636	0	636	0	0	0	0	962
05:15 PM	4	304	0	308	0	0	0	0	0	568	0	568	0	0	0	0	876
05:30 PM	5	339	0	344	0	0	0	0	0	607	0	607	0	0	0	0	951
05:45 PM	5	355	0	360	0	0	0	0	0	444	0	444	0	0	0	0	804
Total	16	1322	0	1338	0	0	0	0	0	2255	0	2255	0	0	0	0	3593
06:00 PM	2	287	0	289	0	0	0	0	0	534	0	534	0	0	0	0	823
06:15 PM	5	386	0	391	0	0	0	0	0	435	0	435	0	0	0	0	826
06:30 PM	5	317	0	322	0	0	0	0	0	411	0	411	0	0	0	0	733
06:45 PM	2	360	0	362	0	0	0	0	0	364	0	364	0	0	0	0	726
Total	14	1350	0	1364	0	0	0	0	0	1744	0	1744	0	0	0	0	3108

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Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 2

Groups Printed- Light - Heavy

	Erin Mills Pkwy From North				From East				Erin Mills Pkwy From South				Site Driveway From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Grand Total	40	8610	0	8650	0	0	0	0	0	10974	0	10974	0	0	0	0	19624
Apprch %	0.5	99.5	0		0	0	0		0	100	0		0	0	0		
Total %	0.2	43.9	0	44.1	0	0	0	0	0	55.9	0	55.9	0	0	0	0	
Light	40	8373	0	8413	0	0	0	0	0	10686	0	10686	0	0	0	0	19099
% Light	100	97.2	0	97.3	0	0	0	0	0	97.4	0	97.4	0	0	0	0	97.3
Heavy	0	237	0	237	0	0	0	0	0	288	0	288	0	0	0	0	525
% Heavy	0	2.8	0	2.7	0	0	0	0	0	2.6	0	2.6	0	0	0	0	2.7

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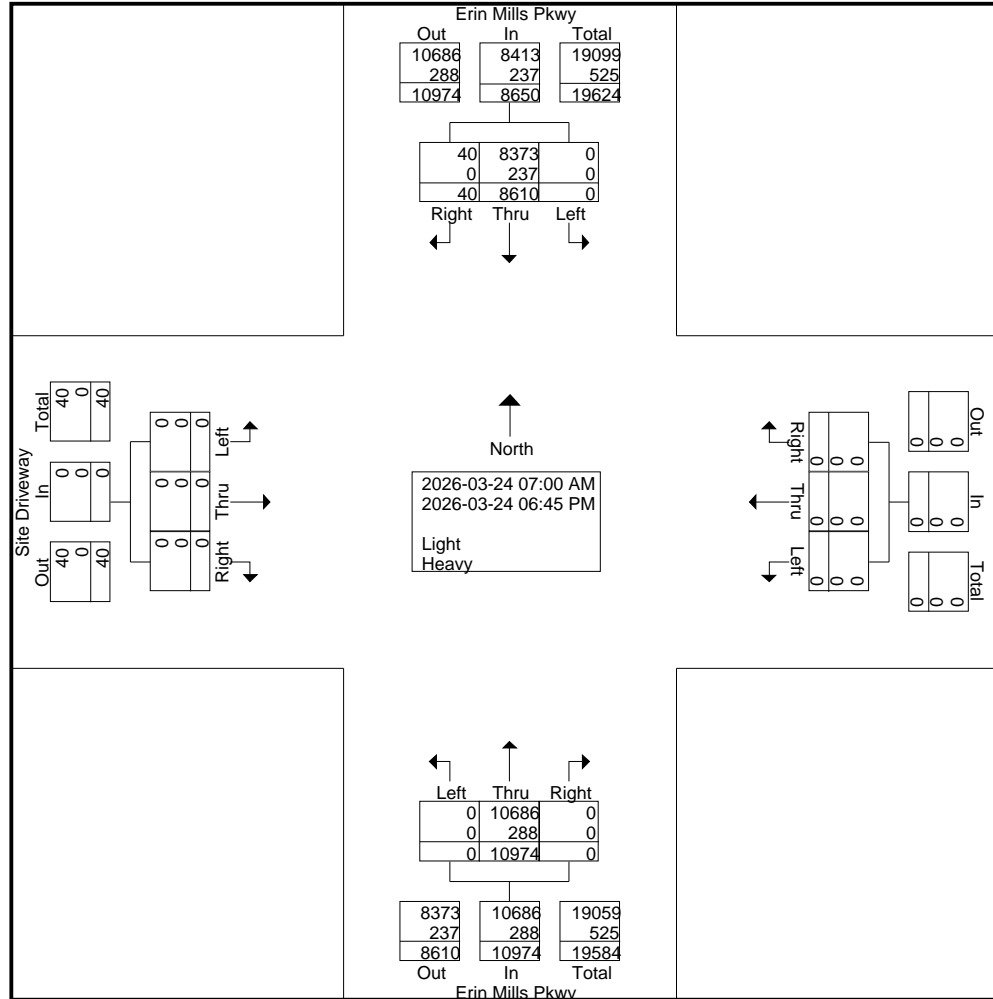
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 3



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Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 4

Start Time	Erin Mills Pkwy From North				From East				Erin Mills Pkwy From South				Site Driveway From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	505	0	505	0	0	0	0	0	448	0	448	0	0	0	0	953
08:00 AM	1	419	0	420	0	0	0	0	0	428	0	428	0	0	0	0	848
08:15 AM	0	479	0	479	0	0	0	0	0	499	0	499	0	0	0	0	978
08:30 AM	1	436	0	437	0	0	0	0	0	421	0	421	0	0	0	0	858
Total Volume	2	1839	0	1841	0	0	0	0	0	1796	0	1796	0	0	0	0	3637
% App. Total	0.1	99.9	0		0	0	0		0	100	0		0	0	0		
PHF	.500	.910	.000	.911	.000	.000	.000	.000	.000	.900	.000	.900	.000	.000	.000	.000	.930
Light	2	1785	0	1787	0	0	0	0	0	1735	0	1735	0	0	0	0	3522
% Light	100	97.1	0	97.1	0	0	0	0	0	96.6	0	96.6	0	0	0	0	96.8
Heavy	0	54	0	54	0	0	0	0	0	61	0	61	0	0	0	0	115
% Heavy	0	2.9	0	2.9	0	0	0	0	0	3.4	0	3.4	0	0	0	0	3.2

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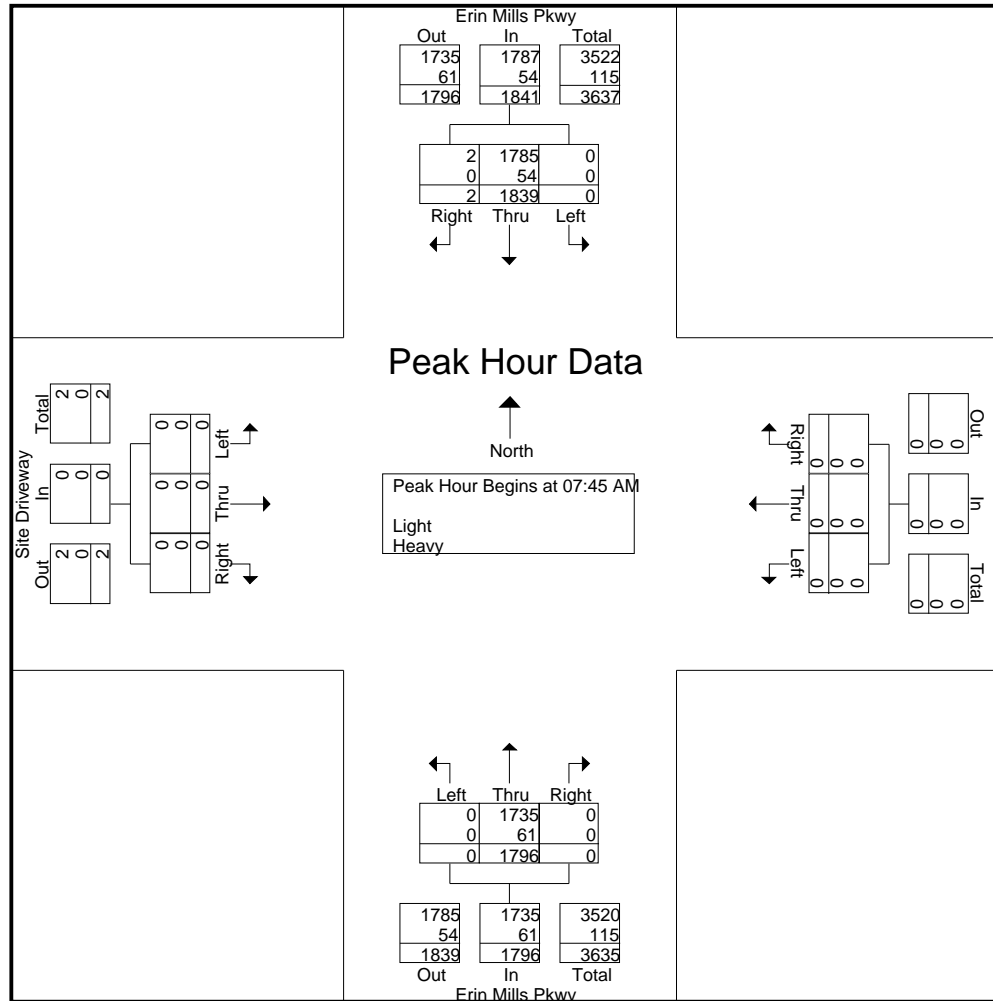
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 5



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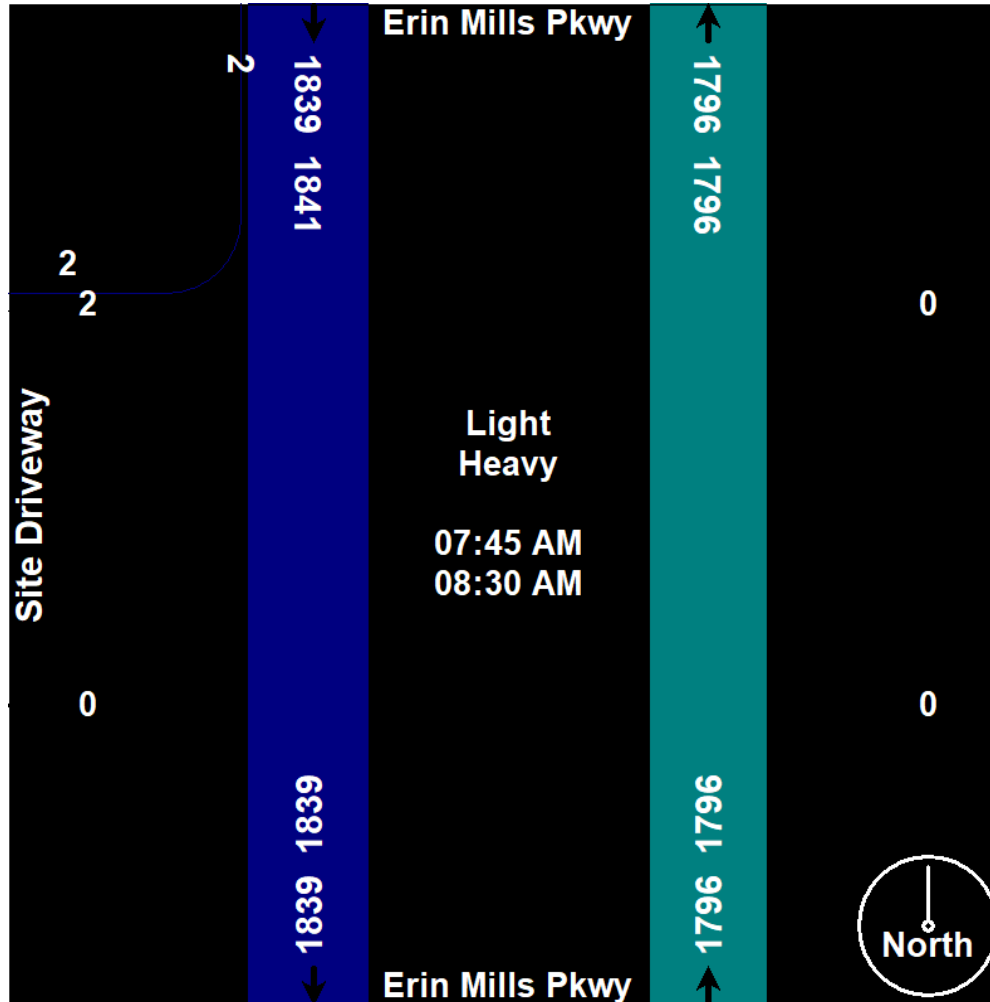
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 6



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Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 7

Start Time	Erin Mills Pkwy From North				From East				Erin Mills Pkwy From South				Site Driveway From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	3	355	0	358	0	0	0	0	0	524	0	524	0	0	0	0	882
05:00 PM	2	324	0	326	0	0	0	0	0	636	0	636	0	0	0	0	962
05:15 PM	4	304	0	308	0	0	0	0	0	568	0	568	0	0	0	0	876
05:30 PM	5	339	0	344	0	0	0	0	0	607	0	607	0	0	0	0	951
Total Volume	14	1322	0	1336	0	0	0	0	0	2335	0	2335	0	0	0	0	3671
% App. Total	1	99	0		0	0	0		0	100	0		0	0	0		
PHF	.700	.931	.000	.933	.000	.000	.000	.000	.000	.918	.000	.918	.000	.000	.000	.000	.954
Light	14	1303	0	1317	0	0	0	0	0	2300	0	2300	0	0	0	0	3617
% Light	100	98.6	0	98.6	0	0	0	0	0	98.5	0	98.5	0	0	0	0	98.5
Heavy	0	19	0	19	0	0	0	0	0	35	0	35	0	0	0	0	54
% Heavy	0	1.4	0	1.4	0	0	0	0	0	1.5	0	1.5	0	0	0	0	1.5

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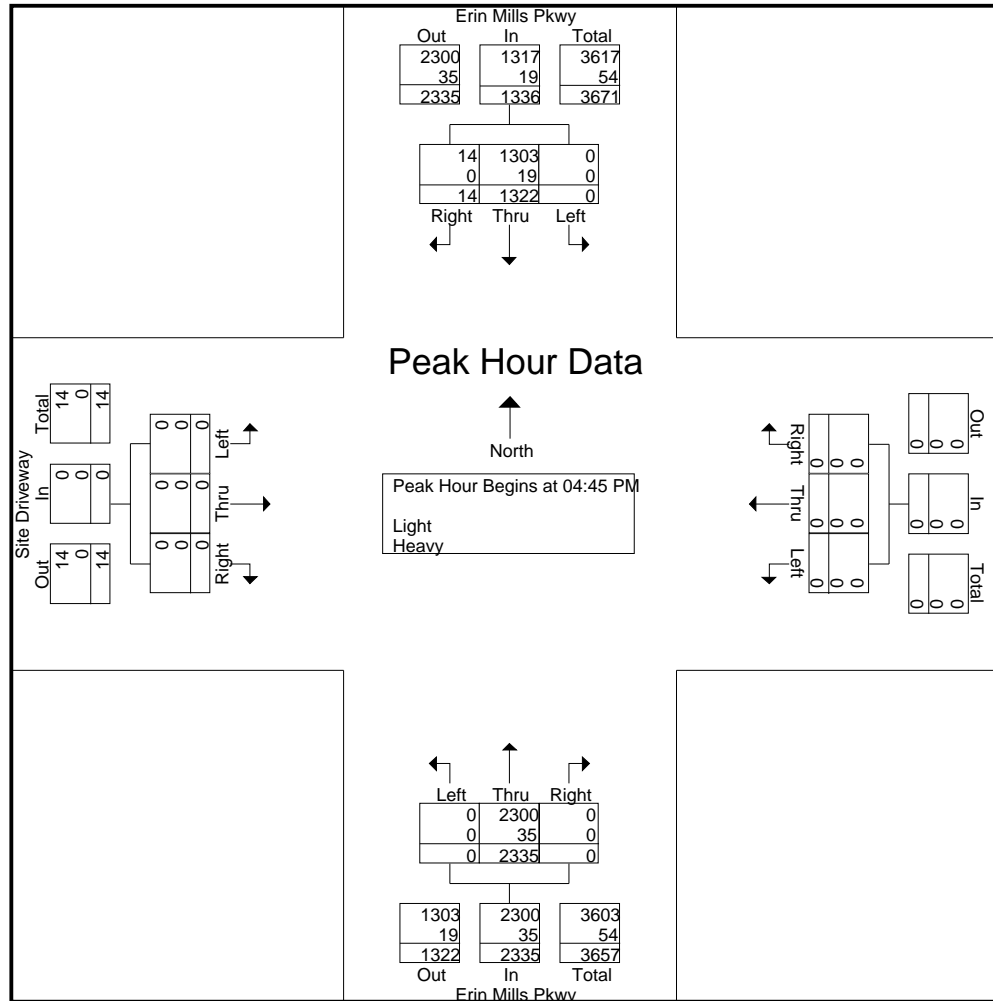
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 8



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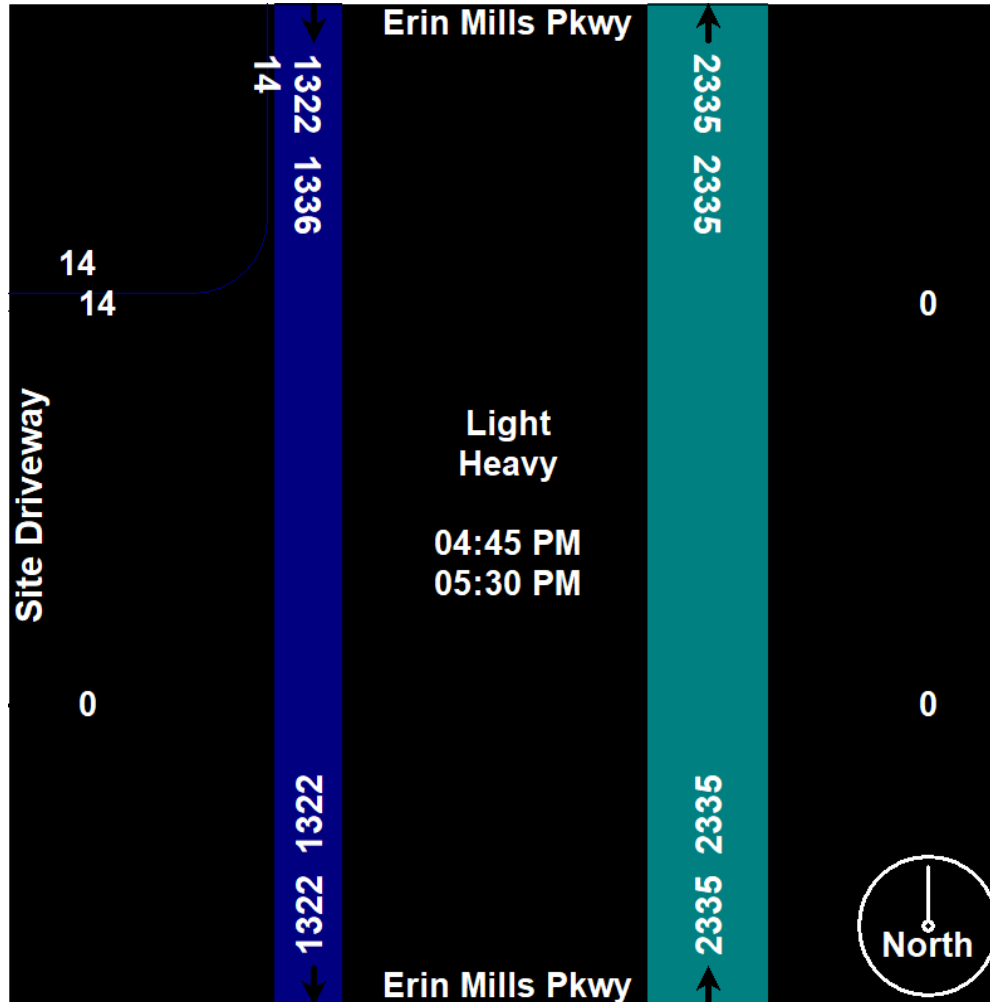
Your Traffic Count Specialist

File Name : Erin Mills Parkway at Site Driveway

Site Code : Loc-2

Start Date : 2026-03-24

Page No : 9



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Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 1

Groups Printed- Light - Heavy

Start Time	Leanne Blvd From North				N Sheridan Way From East				Car Pool Access From South				N Sheridan Way From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	14	0	9	23	4	40	2	46	0	1	0	1	0	25	6	31	101
07:15 AM	15	1	9	25	3	54	2	59	2	1	1	4	0	35	4	39	127
07:30 AM	16	0	18	34	5	57	0	62	0	0	0	0	0	38	5	43	139
07:45 AM	35	0	20	55	3	91	0	94	0	0	0	0	0	45	15	60	209
Total	80	1	56	137	15	242	4	261	2	2	1	5	0	143	30	173	576
08:00 AM	39	1	12	52	5	141	0	146	0	0	0	0	0	72	14	86	284
08:15 AM	62	0	12	74	4	129	1	134	0	0	0	0	0	71	22	93	301
08:30 AM	43	2	6	51	11	146	4	161	1	0	0	1	0	67	27	94	307
08:45 AM	32	0	6	38	1	107	6	114	1	0	1	2	0	43	14	57	211
Total	176	3	36	215	21	523	11	555	2	0	1	3	0	253	77	330	1103
09:00 AM	29	1	7	37	4	112	0	116	6	1	0	7	0	42	12	54	214
09:15 AM	33	0	7	40	6	70	2	78	2	1	0	3	0	39	8	47	168
09:30 AM	23	0	3	26	4	51	0	55	0	0	1	1	0	30	11	41	123
09:45 AM	19	0	6	25	3	56	0	59	0	0	0	0	0	31	7	38	122
Total	104	1	23	128	17	289	2	308	8	2	1	11	0	142	38	180	627
04:00 PM	15	0	10	25	13	37	0	50	0	0	0	0	0	130	52	182	257
04:15 PM	11	1	2	14	14	36	2	52	1	1	0	2	0	121	45	166	234
04:30 PM	15	0	10	25	13	40	0	53	0	0	0	0	0	139	69	208	286
04:45 PM	14	0	7	21	24	52	1	77	1	1	0	2	1	114	73	188	288
Total	55	1	29	85	64	165	3	232	2	2	0	4	1	504	239	744	1065
05:00 PM	17	1	6	24	16	41	4	61	4	3	1	8	0	125	84	209	302
05:15 PM	12	0	5	17	21	43	1	65	0	2	0	2	3	121	85	209	293
05:30 PM	13	0	9	22	16	36	2	54	1	0	0	1	0	96	53	149	226
05:45 PM	12	0	18	30	13	26	1	40	2	1	0	3	0	63	29	92	165
Total	54	1	38	93	66	146	8	220	7	6	1	14	3	405	251	659	986
06:00 PM	10	0	12	22	11	19	0	30	2	1	0	3	0	60	24	84	139
06:15 PM	8	1	9	18	11	18	0	29	0	0	0	0	0	39	19	58	105
06:30 PM	5	0	6	11	7	23	1	31	3	0	0	3	0	45	7	52	97
06:45 PM	7	0	2	9	8	21	0	29	0	0	1	1	1	29	12	42	81
Total	30	1	29	60	37	81	1	119	5	1	1	7	1	173	62	236	422

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Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 2

Groups Printed- Light - Heavy

	Leanne Blvd From North				N Sheridan Way From East				Car Pool Access From South				N Sheridan Way From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Grand Total	499	8	211	718	220	1446	29	1695	26	13	5	44	5	1620	697	2322	4779
Apprch %	69.5	1.1	29.4		13	85.3	1.7		59.1	29.5	11.4		0.2	69.8	30		
Total %	10.4	0.2	4.4	15	4.6	30.3	0.6	35.5	0.5	0.3	0.1	0.9	0.1	33.9	14.6	48.6	
Light	486	8	207	701	218	1437	28	1683	26	13	5	44	5	1614	677	2296	4724
% Light	97.4	100	98.1	97.6	99.1	99.4	96.6	99.3	100	100	100	100	100	99.6	97.1	98.9	98.8
Heavy	13	0	4	17	2	9	1	12	0	0	0	0	0	6	20	26	55
% Heavy	2.6	0	1.9	2.4	0.9	0.6	3.4	0.7	0	0	0	0	0	0.4	2.9	1.1	1.2

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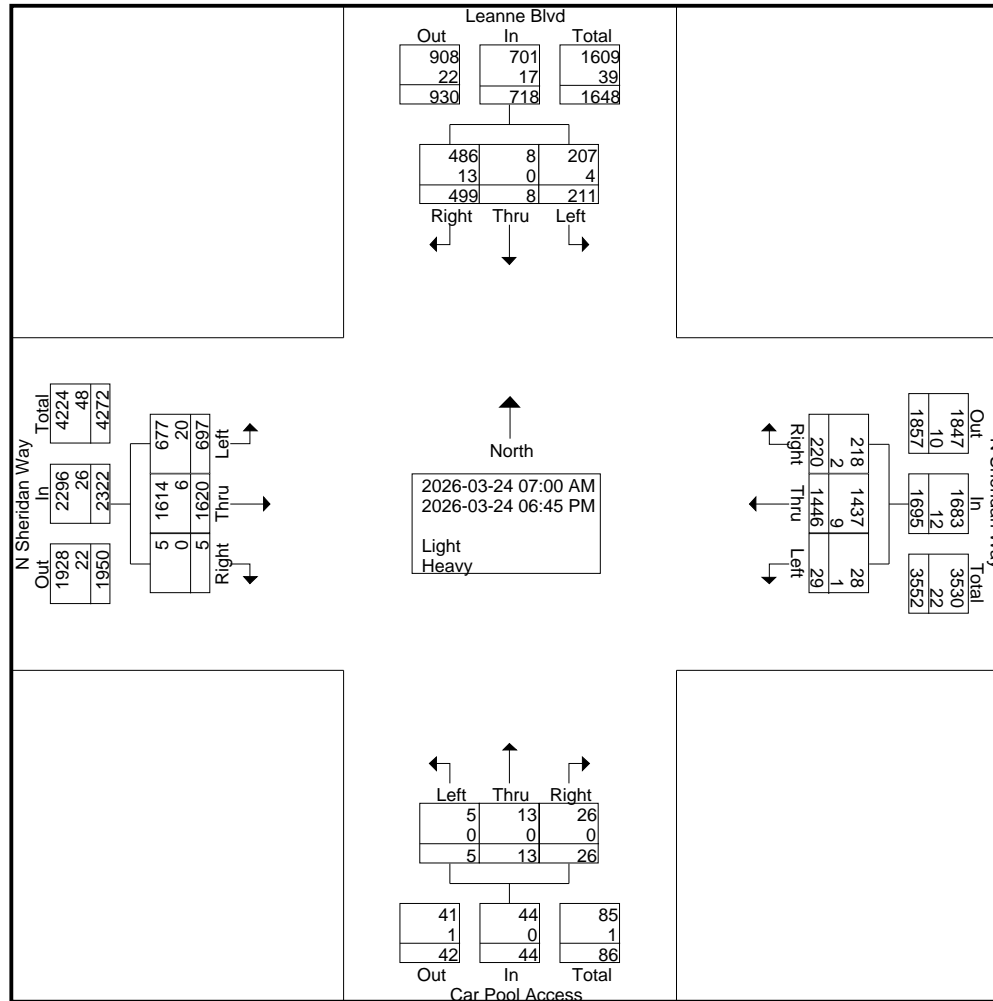
Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 3



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Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 4

Start Time	Leanne Blvd From North				N Sheridan Way From East				Car Pool Access From South				N Sheridan Way From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	39	1	12	52	5	141	0	146	0	0	0	0	0	72	14	86	284
08:15 AM	62	0	12	74	4	129	1	134	0	0	0	0	0	71	22	93	301
08:30 AM	43	2	6	51	11	146	4	161	1	0	0	1	0	67	27	94	307
08:45 AM	32	0	6	38	1	107	6	114	1	0	1	2	0	43	14	57	211
Total Volume	176	3	36	215	21	523	11	555	2	0	1	3	0	253	77	330	1103
% App. Total	81.9	1.4	16.7		3.8	94.2	2		66.7	0	33.3		0	76.7	23.3		
PHF	.710	.375	.750	.726	.477	.896	.458	.862	.500	.000	.250	.375	.000	.878	.713	.878	.898
Light	173	3	34	210	21	520	11	552	2	0	1	3	0	253	76	329	1094
% Light	98.3	100	94.4	97.7	100	99.4	100	99.5	100	0	100	100	0	100	98.7	99.7	99.2
Heavy	3	0	2	5	0	3	0	3	0	0	0	0	0	0	1	1	9
% Heavy	1.7	0	5.6	2.3	0	0.6	0	0.5	0	0	0	0	0	0	1.3	0.3	0.8

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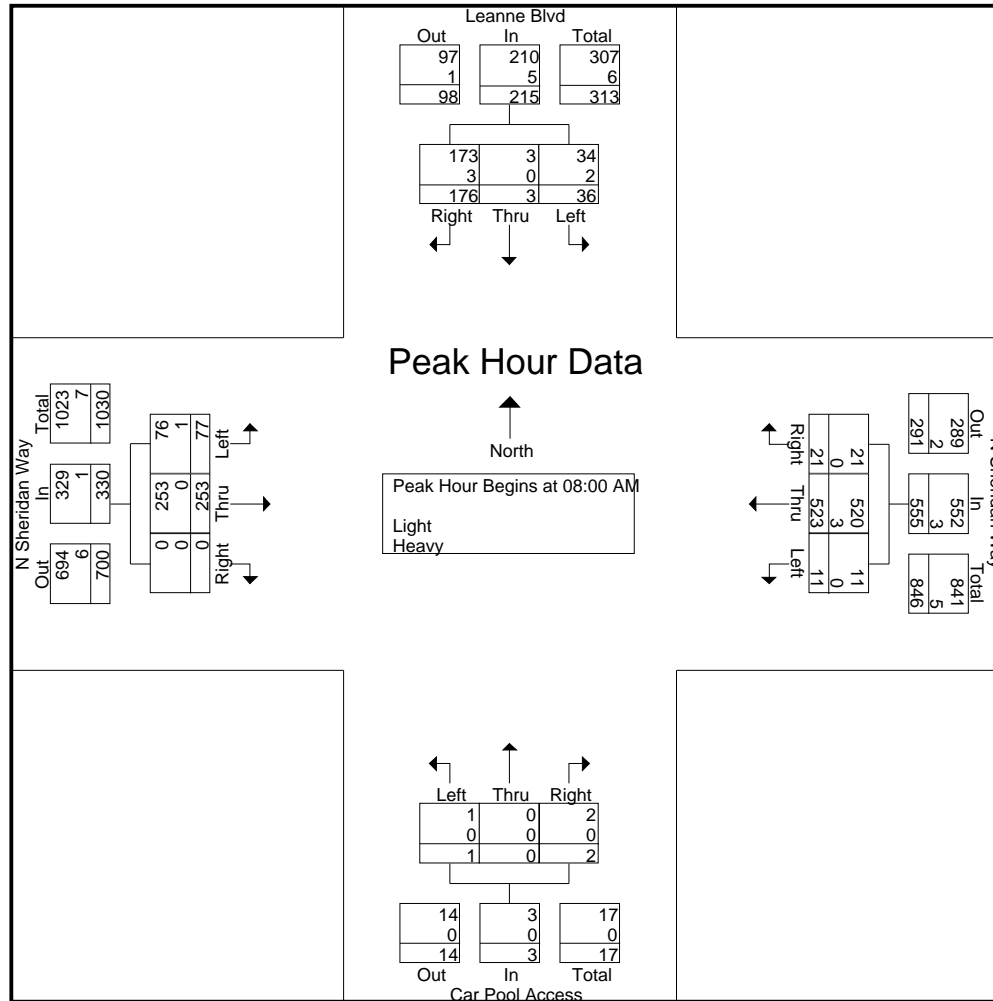
Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

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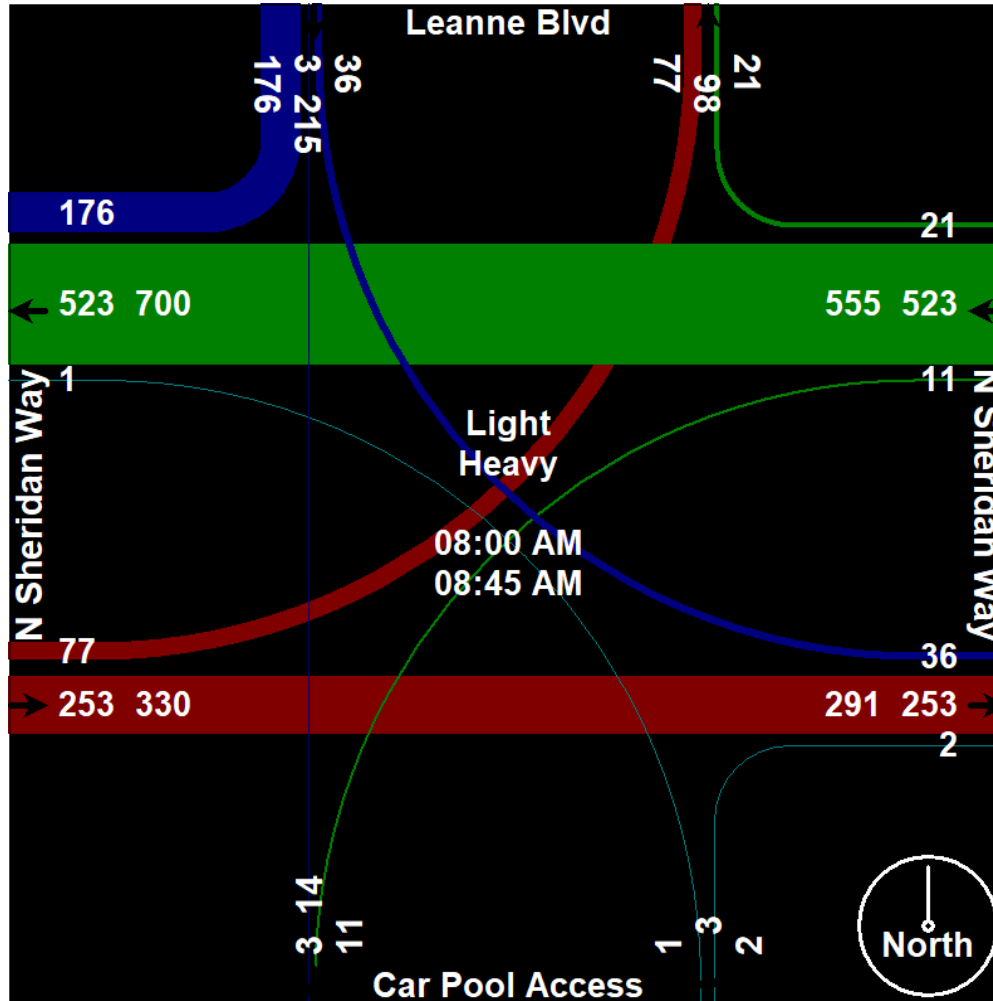
Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 6



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Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 7

Start Time	Leanne Blvd From North				N Sheridan Way From East				Car Pool Access From South				N Sheridan Way From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	15	0	10	25	13	40	0	53	0	0	0	0	0	139	69	208	286
04:45 PM	14	0	7	21	24	52	1	77	1	1	0	2	1	114	73	188	288
05:00 PM	17	1	6	24	16	41	4	61	4	3	1	8	0	125	84	209	302
05:15 PM	12	0	5	17	21	43	1	65	0	2	0	2	3	121	85	209	293
Total Volume	58	1	28	87	74	176	6	256	5	6	1	12	4	499	311	814	1169
% App. Total	66.7	1.1	32.2		28.9	68.8	2.3		41.7	50	8.3		0.5	61.3	38.2		
PHF	.853	.250	.700	.870	.771	.846	.375	.831	.313	.500	.250	.375	.333	.897	.915	.974	.968
Light	57	1	28	86	74	176	6	256	5	6	1	12	4	497	303	804	1158
% Light	98.3	100	100	98.9	100	100	100	100	100	100	100	100	100	99.6	97.4	98.8	99.1
Heavy	1	0	0	1	0	0	0	0	0	0	0	0	0	2	8	10	11
% Heavy	1.7	0	0	1.1	0	0	0	0	0	0	0	0	0	0.4	2.6	1.2	0.9

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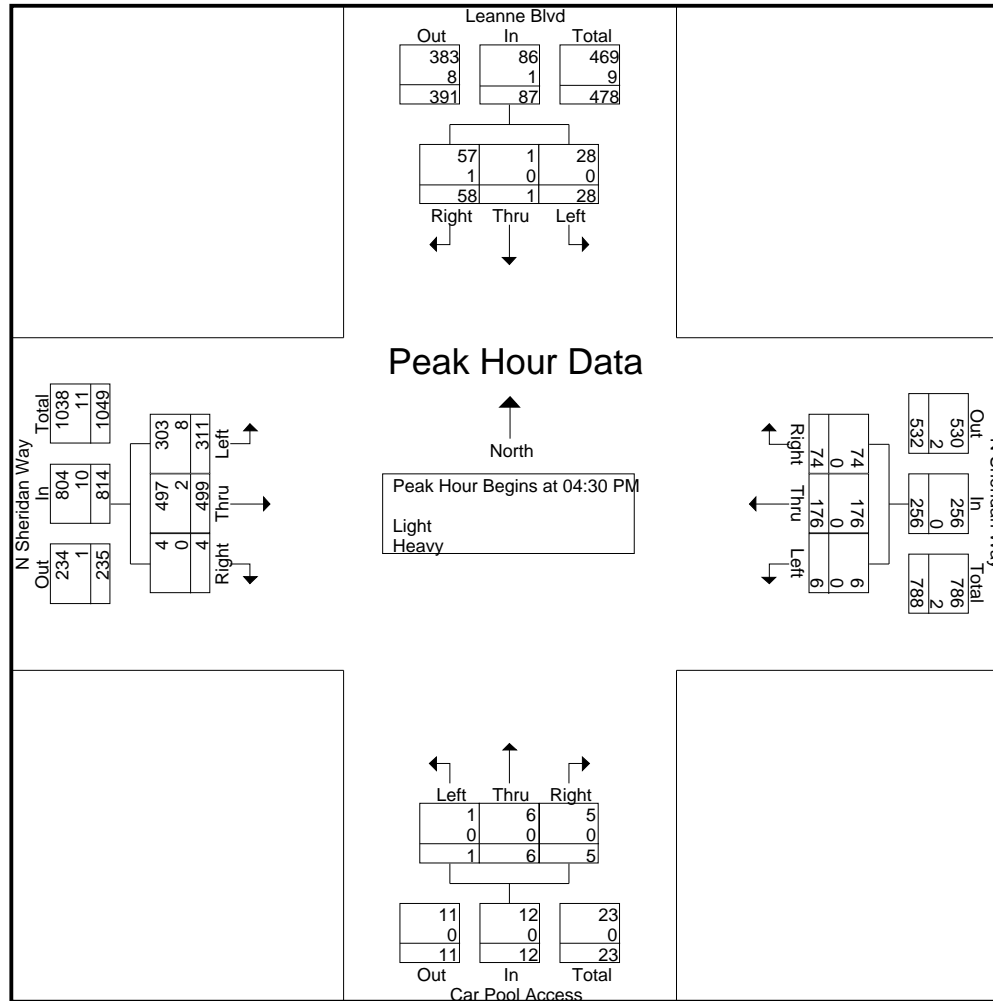
Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 8



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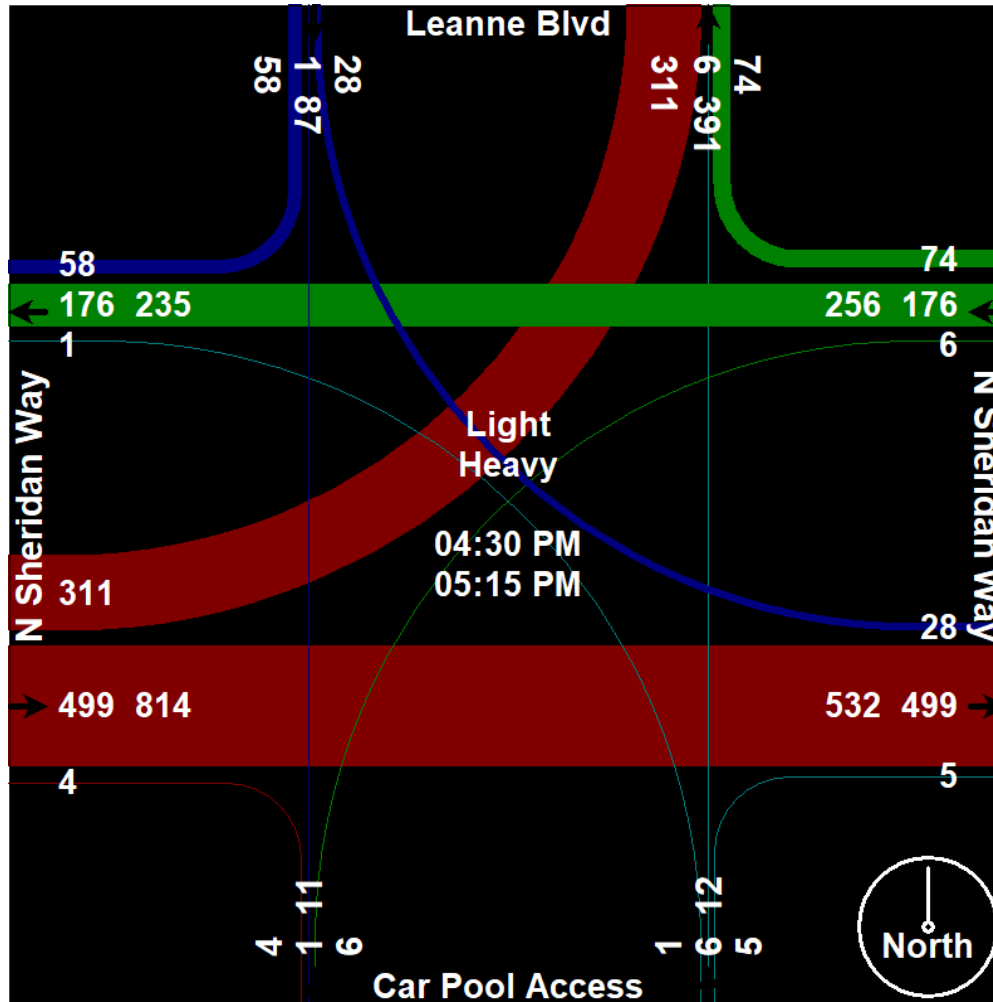
Your Traffic Count Specialist

File Name : Leanne Boulevard at N Sheridan Way

Site Code : Loc-5

Start Date : 2026-03-24

Page No : 9



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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

Page No : 1

Groups Printed- Light - Heavy

Start Time	Leanne Blvd From North				Site N Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	14	0	14	1	0	0	1	0	29	0	29	0	0	0	0	44
07:15 AM	0	27	0	27	1	0	0	1	1	15	0	16	0	0	0	0	44
07:30 AM	0	26	0	26	0	0	0	0	0	17	0	17	0	0	0	0	43
07:45 AM	0	33	1	34	2	0	1	3	1	41	0	42	0	0	0	0	79
Total	0	100	1	101	4	0	1	5	2	102	0	104	0	0	0	0	210
08:00 AM	0	56	0	56	1	0	0	1	1	35	0	36	0	0	0	0	93
08:15 AM	0	82	0	82	0	0	0	0	0	41	0	41	0	0	0	0	123
08:30 AM	0	54	0	54	1	0	0	1	0	51	0	51	0	0	0	0	106
08:45 AM	0	56	4	60	2	0	0	2	0	32	0	32	0	0	0	0	94
Total	0	248	4	252	4	0	0	4	1	159	0	160	0	0	0	0	416
09:00 AM	0	55	7	62	1	0	0	1	1	25	0	26	0	0	0	0	89
09:15 AM	0	38	2	40	4	0	0	4	1	26	0	27	0	0	0	0	71
09:30 AM	0	35	3	38	2	0	0	2	1	21	0	22	0	0	0	0	62
09:45 AM	0	30	4	34	0	0	0	0	0	21	0	21	0	0	0	0	55
Total	0	158	16	174	7	0	0	7	3	93	0	96	0	0	0	0	277
04:00 PM	0	40	6	46	9	0	3	12	4	52	0	56	0	0	0	0	114
04:15 PM	0	41	6	47	3	0	4	7	4	51	0	55	0	0	0	0	109
04:30 PM	0	33	3	36	6	0	3	9	4	71	0	75	0	0	0	0	120
04:45 PM	0	41	7	48	4	0	2	6	4	60	0	64	0	0	0	0	118
Total	0	155	22	177	22	0	12	34	16	234	0	250	0	0	0	0	461
05:00 PM	0	48	10	58	10	0	1	11	3	98	0	101	0	0	0	0	170
05:15 PM	0	46	9	55	14	0	4	18	4	72	0	76	0	0	0	0	149
05:30 PM	0	51	12	63	14	0	3	17	5	56	0	61	0	0	0	0	141
05:45 PM	0	42	8	50	11	0	2	13	1	31	0	32	0	0	0	0	95
Total	0	187	39	226	49	0	10	59	13	257	0	270	0	0	0	0	555
06:00 PM	0	22	6	28	17	0	2	19	1	41	0	42	0	0	0	0	89
06:15 PM	0	23	6	29	16	0	2	18	1	33	0	34	0	0	0	0	81
06:30 PM	0	16	9	25	8	0	5	13	4	16	0	20	0	0	0	0	58
06:45 PM	0	21	7	28	10	0	2	12	5	18	0	23	0	0	0	0	63
Total	0	82	28	110	51	0	11	62	11	108	0	119	0	0	0	0	291

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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

Page No : 2

Groups Printed- Light - Heavy

	Leanne Blvd From North				Site N Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Grand Total	0	930	110	1040	137	0	34	171	46	953	0	999	0	0	0	0	2210
Apprch %	0	89.4	10.6		80.1	0	19.9		4.6	95.4	0		0	0	0		
Total %	0	42.1	5	47.1	6.2	0	1.5	7.7	2.1	43.1	0	45.2	0	0	0	0	
Light	0	902	110	1012	136	0	33	169	45	923	0	968	0	0	0	0	2149
% Light	0	97	100	97.3	99.3	0	97.1	98.8	97.8	96.9	0	96.9	0	0	0	0	97.2
Heavy	0	28	0	28	1	0	1	2	1	30	0	31	0	0	0	0	61
% Heavy	0	3	0	2.7	0.7	0	2.9	1.2	2.2	3.1	0	3.1	0	0	0	0	2.8

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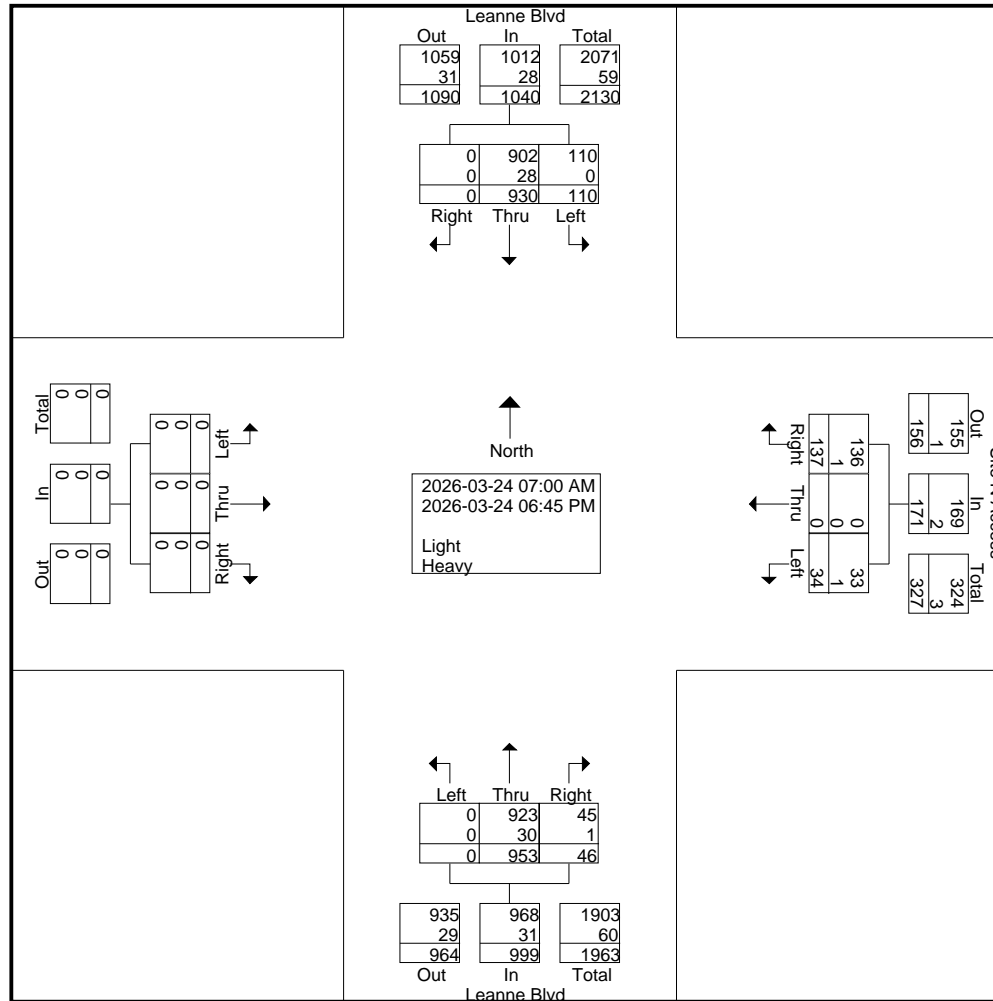
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

Page No : 3



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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

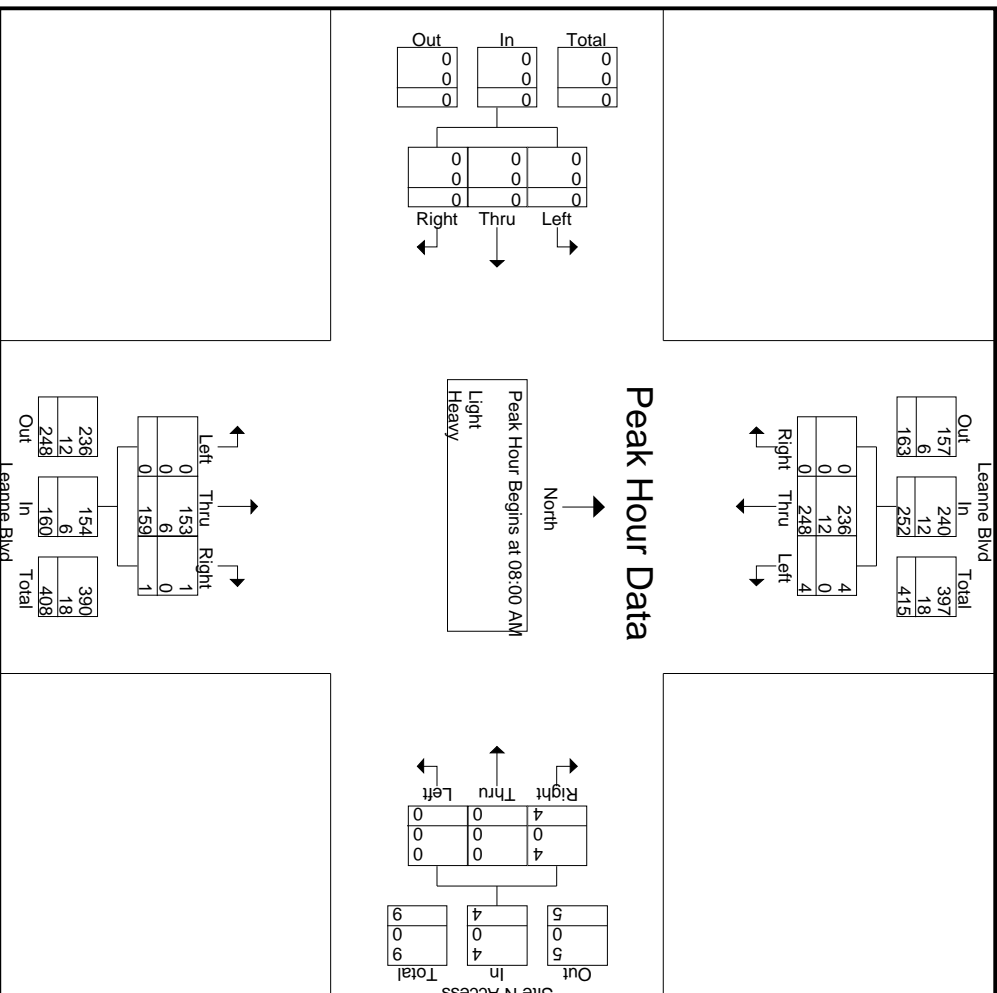
Page No : 4

Start Time	Leanne Blvd From North				Site N Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	56	0	56	1	0	0	1	1	35	0	36	0	0	0	0	93
08:15 AM	0	82	0	82	0	0	0	0	0	41	0	41	0	0	0	0	123
08:30 AM	0	54	0	54	1	0	0	1	0	51	0	51	0	0	0	0	106
08:45 AM	0	56	4	60	2	0	0	2	0	32	0	32	0	0	0	0	94
Total Volume	0	248	4	252	4	0	0	4	1	159	0	160	0	0	0	0	416
% App. Total	0	98.4	1.6		100	0	0		0.6	99.4	0		0	0	0		
PHF	.000	.756	.250	.768	.500	.000	.000	.500	.250	.779	.000	.784	.000	.000	.000	.000	.846
Light	0	236	4	240	4	0	0	4	1	153	0	154	0	0	0	0	398
% Light	0	95.2	100	95.2	100	0	0	100	100	96.2	0	96.3	0	0	0	0	95.7
Heavy	0	12	0	12	0	0	0	0	0	6	0	6	0	0	0	0	18
% Heavy	0	4.8	0	4.8	0	0	0	0	0	3.8	0	3.8	0	0	0	0	4.3

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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway
 Site Code : Loc-3
 Start Date : 2026-03-24
 Page No : 5



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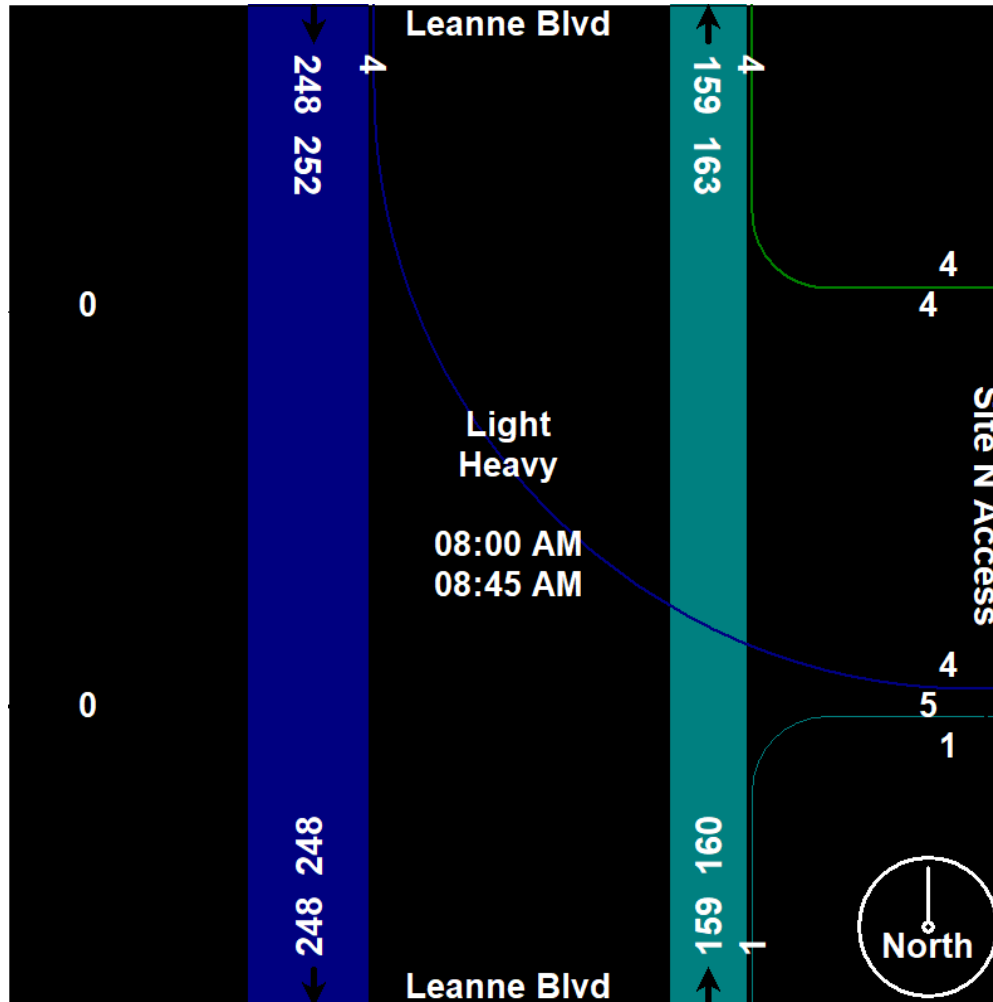
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

Page No : 6



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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

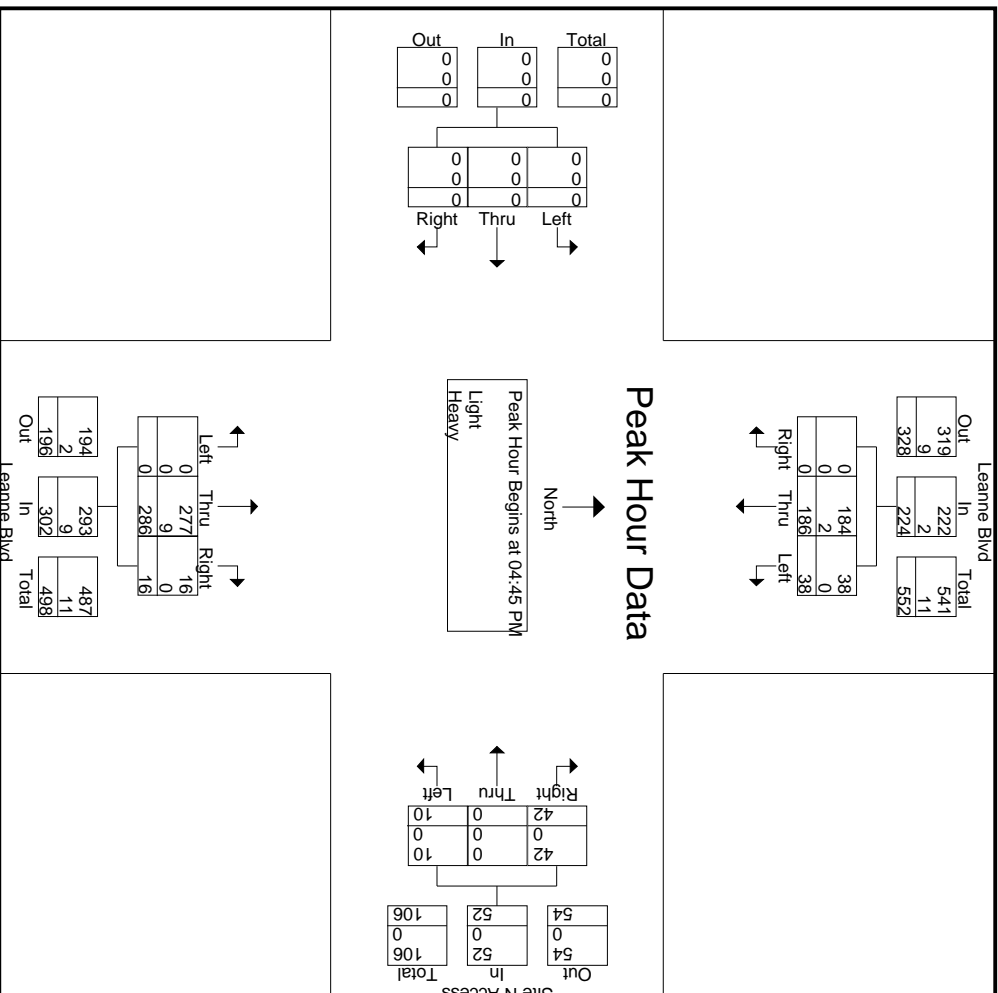
Page No : 7

Start Time	Leanne Blvd From North				Site N Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	41	7	48	4	0	2	6	4	60	0	64	0	0	0	0	118
05:00 PM	0	48	10	58	10	0	1	11	3	98	0	101	0	0	0	0	170
05:15 PM	0	46	9	55	14	0	4	18	4	72	0	76	0	0	0	0	149
05:30 PM	0	51	12	63	14	0	3	17	5	56	0	61	0	0	0	0	141
Total Volume	0	186	38	224	42	0	10	52	16	286	0	302	0	0	0	0	578
% App. Total	0	83	17		80.8	0	19.2		5.3	94.7	0		0	0	0		
PHF	.000	.912	.792	.889	.750	.000	.625	.722	.800	.730	.000	.748	.000	.000	.000	.000	.850
Light	0	184	38	222	42	0	10	52	16	277	0	293	0	0	0	0	567
% Light	0	98.9	100	99.1	100	0	100	100	100	96.9	0	97.0	0	0	0	0	98.1
Heavy	0	2	0	2	0	0	0	0	0	9	0	9	0	0	0	0	11
% Heavy	0	1.1	0	0.9	0	0	0	0	0	3.1	0	3.0	0	0	0	0	1.9

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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway
 Site Code : Loc-3
 Start Date : 2026-03-24
 Page No : 8



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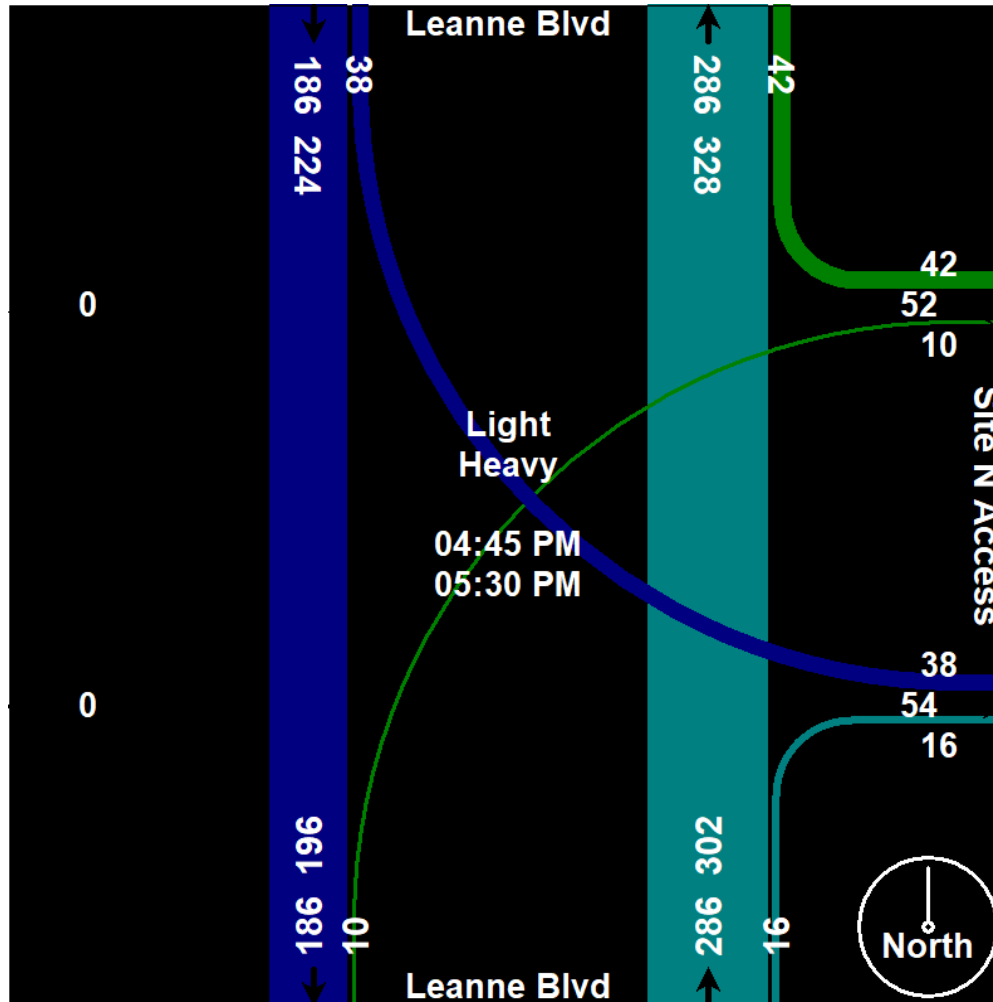
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site N Driveway

Site Code : Loc-3

Start Date : 2026-03-24

Page No : 9



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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 1

Groups Printed- Light - Heavy

Start Time	Leanne Blvd From North				Site S Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
07:00 AM	0	18	0	18	0	0	0	0	1	20	0	21	0	0	0	0	39
07:15 AM	0	27	1	28	0	0	1	1	2	11	0	13	0	0	0	0	42
07:30 AM	0	26	0	26	0	0	0	0	0	11	0	11	0	0	0	0	37
07:45 AM	0	45	0	45	0	0	0	0	1	22	0	23	0	0	0	0	68
Total	0	116	1	117	0	0	1	1	4	64	0	68	0	0	0	0	186
08:00 AM	0	53	0	53	1	0	1	2	2	21	0	23	0	0	0	0	78
08:15 AM	0	63	0	63	0	0	0	0	0	26	0	26	0	0	0	0	89
08:30 AM	0	61	0	61	0	0	0	0	2	36	0	38	0	0	0	0	99
08:45 AM	0	40	2	42	1	0	0	1	1	19	0	20	0	0	0	0	63
Total	0	217	2	219	2	0	1	3	5	102	0	107	0	0	0	0	329
09:00 AM	0	47	1	48	0	0	1	1	1	13	0	14	0	0	0	0	63
09:15 AM	0	39	1	40	0	0	1	1	0	17	0	17	0	0	0	0	58
09:30 AM	0	29	1	30	0	0	0	0	2	18	0	20	0	0	0	0	50
09:45 AM	0	27	3	30	0	0	0	0	0	12	0	12	0	0	0	0	42
Total	0	142	6	148	0	0	2	2	3	60	0	63	0	0	0	0	213
04:00 PM	0	22	1	23	3	0	0	3	1	68	0	69	0	0	0	0	95
04:15 PM	0	18	0	18	0	0	3	3	1	63	0	64	0	0	0	0	85
04:30 PM	0	22	1	23	2	0	2	4	1	78	0	79	0	0	0	0	106
04:45 PM	0	16	1	17	3	0	2	5	6	84	0	90	0	0	0	0	112
Total	0	78	3	81	8	0	7	15	9	293	0	302	0	0	0	0	398
05:00 PM	0	26	3	29	4	0	0	4	2	104	0	106	0	0	0	0	139
05:15 PM	0	20	2	22	2	0	0	2	4	99	0	103	0	0	0	0	127
05:30 PM	0	23	0	23	2	0	5	7	1	72	0	73	0	0	0	0	103
05:45 PM	0	30	3	33	0	0	1	1	4	38	0	42	0	0	0	0	76
Total	0	99	8	107	8	0	6	14	11	313	0	324	0	0	0	0	445
06:00 PM	0	17	1	18	2	0	3	5	5	38	0	43	0	0	0	0	66
06:15 PM	0	18	0	18	0	0	4	4	0	25	0	25	0	0	0	0	47
06:30 PM	0	5	0	5	4	0	1	5	0	15	0	15	0	0	0	0	25
06:45 PM	0	16	0	16	3	0	1	4	3	17	0	20	0	0	0	0	40
Total	0	56	1	57	9	0	9	18	8	95	0	103	0	0	0	0	178

Horizon Data Services Ltd

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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 2

Groups Printed- Light - Heavy

	Leanne Blvd From North				Site S Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Grand Total	0	708	21	729	27	0	26	53	40	927	0	967	0	0	0	0	1749
Apprch %	0	97.1	2.9		50.9	0	49.1		4.1	95.9	0		0	0	0		
Total %	0	40.5	1.2	41.7	1.5	0	1.5	3	2.3	53	0	55.3	0	0	0	0	
Light	0	689	21	710	27	0	26	53	39	902	0	941	0	0	0	0	1704
% Light	0	97.3	100	97.4	100	0	100	100	97.5	97.3	0	97.3	0	0	0	0	97.4
Heavy	0	19	0	19	0	0	0	0	1	25	0	26	0	0	0	0	45
% Heavy	0	2.7	0	2.6	0	0	0	0	2.5	2.7	0	2.7	0	0	0	0	2.6

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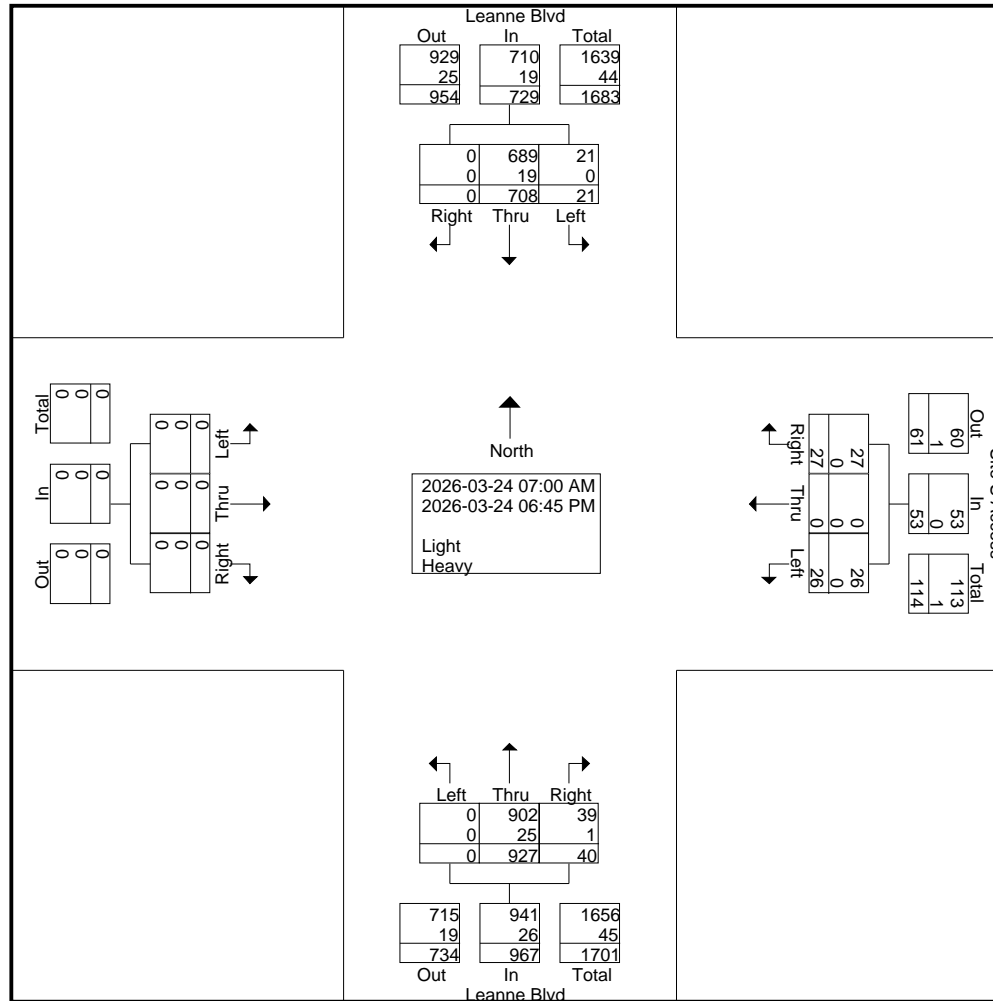
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 3



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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 4

Start Time	Leanne Blvd From North				Site S Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 07:00 AM to 09:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	45	0	45	0	0	0	0	1	22	0	23	0	0	0	0	68
08:00 AM	0	53	0	53	1	0	1	2	2	21	0	23	0	0	0	0	78
08:15 AM	0	63	0	63	0	0	0	0	0	26	0	26	0	0	0	0	89
08:30 AM	0	61	0	61	0	0	0	0	2	36	0	38	0	0	0	0	99
Total Volume	0	222	0	222	1	0	1	2	5	105	0	110	0	0	0	0	334
% App. Total	0	100	0		50	0	50		4.5	95.5	0		0	0	0		
PHF	.000	.881	.000	.881	.250	.000	.250	.250	.625	.729	.000	.724	.000	.000	.000	.000	.843
Light	0	214	0	214	1	0	1	2	4	100	0	104	0	0	0	0	320
% Light	0	96.4	0	96.4	100	0	100	100	80.0	95.2	0	94.5	0	0	0	0	95.8
Heavy	0	8	0	8	0	0	0	0	1	5	0	6	0	0	0	0	14
% Heavy	0	3.6	0	3.6	0	0	0	0	20.0	4.8	0	5.5	0	0	0	0	4.2

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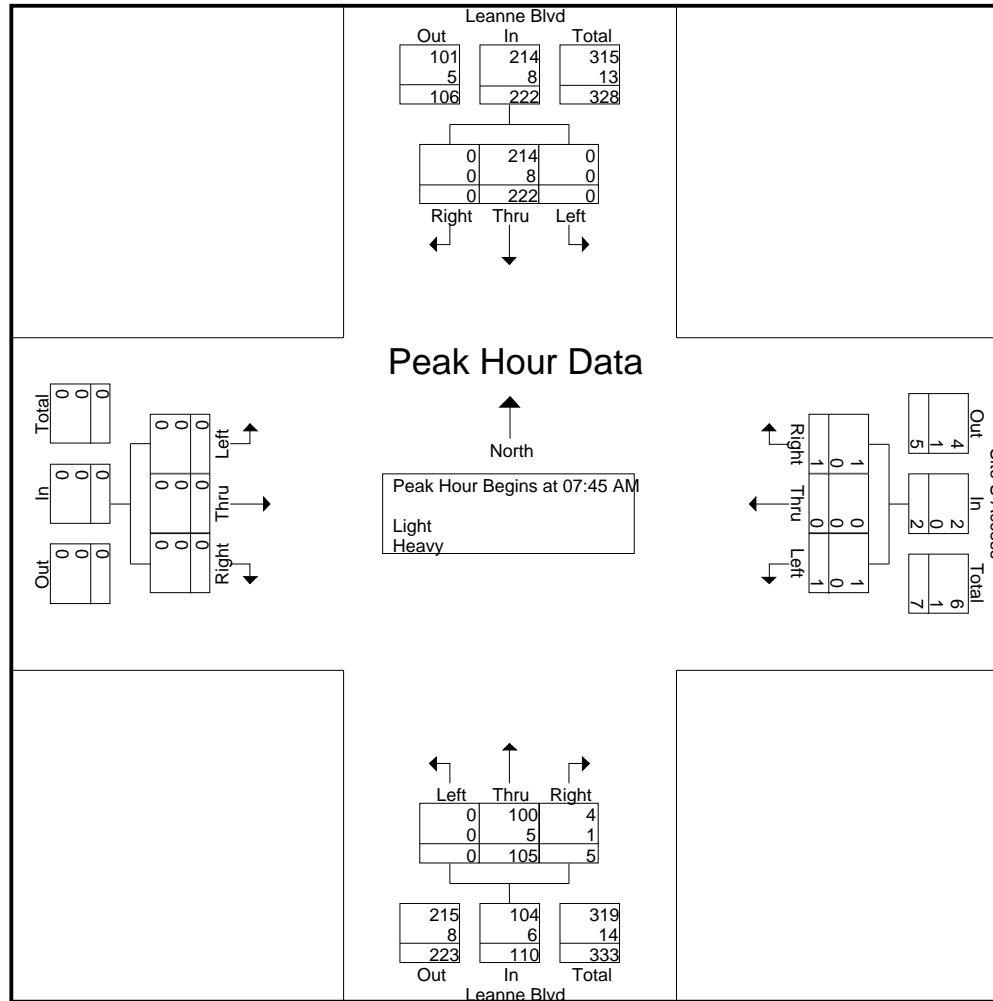
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 5



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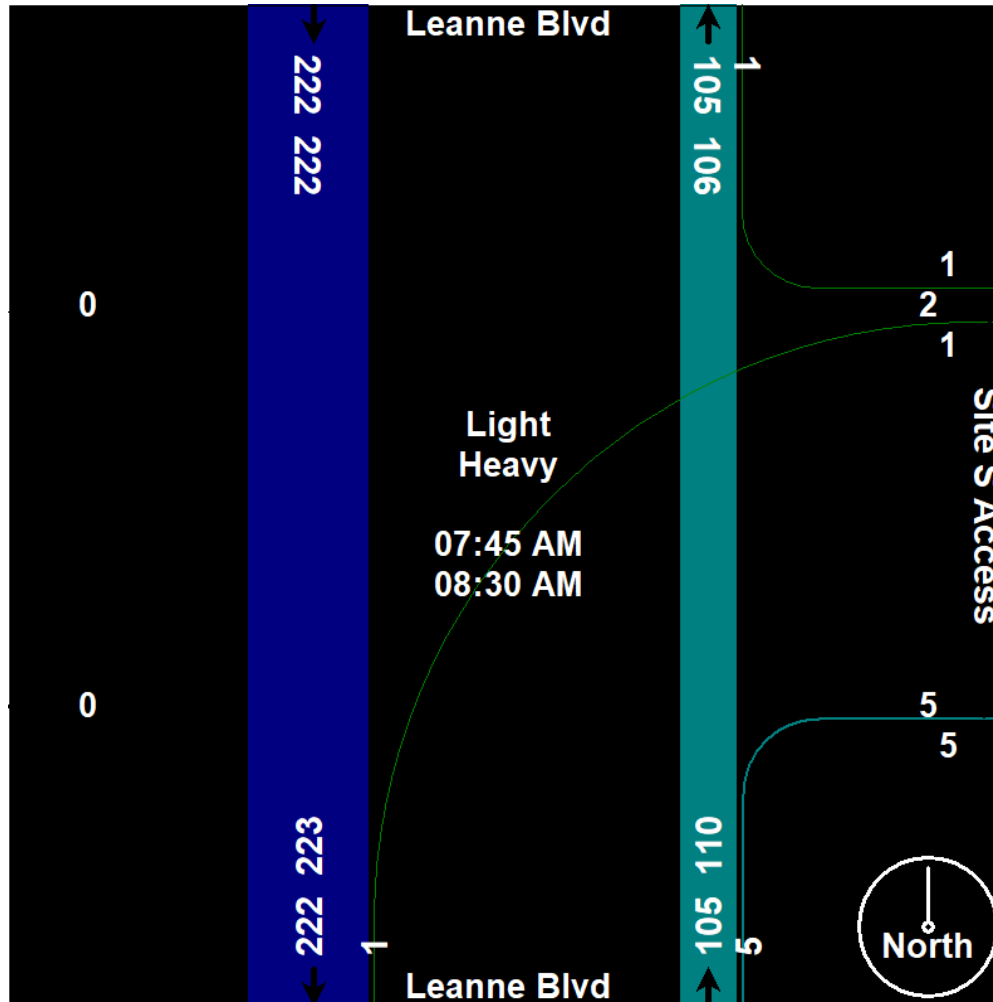
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 6



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Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 7

Start Time	Leanne Blvd From North				Site S Access From East				Leanne Blvd From South				From West				Int. Total
	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	
Peak Hour Analysis From 04:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	22	1	23	2	0	2	4	1	78	0	79	0	0	0	0	106
04:45 PM	0	16	1	17	3	0	2	5	6	84	0	90	0	0	0	0	112
05:00 PM	0	26	3	29	4	0	0	4	2	104	0	106	0	0	0	0	139
05:15 PM	0	20	2	22	2	0	0	2	4	99	0	103	0	0	0	0	127
Total Volume	0	84	7	91	11	0	4	15	13	365	0	378	0	0	0	0	484
% App. Total	0	92.3	7.7		73.3	0	26.7		3.4	96.6	0		0	0	0		
PHF	.000	.808	.583	.784	.688	.000	.500	.750	.542	.877	.000	.892	.000	.000	.000	.000	.871
Light	0	83	7	90	11	0	4	15	13	356	0	369	0	0	0	0	474
% Light	0	98.8	100	98.9	100	0	100	100	100	97.5	0	97.6	0	0	0	0	97.9
Heavy	0	1	0	1	0	0	0	0	0	9	0	9	0	0	0	0	10
% Heavy	0	1.2	0	1.1	0	0	0	0	0	2.5	0	2.4	0	0	0	0	2.1

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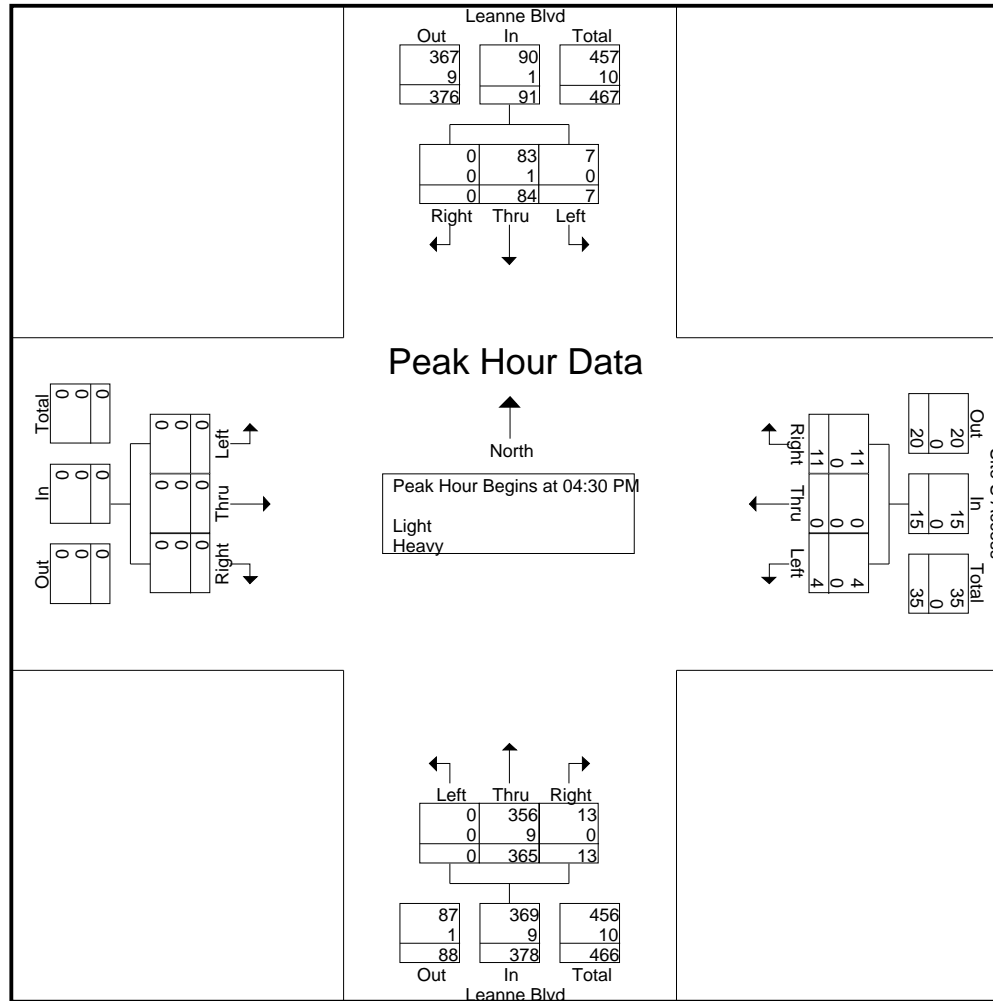
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 8



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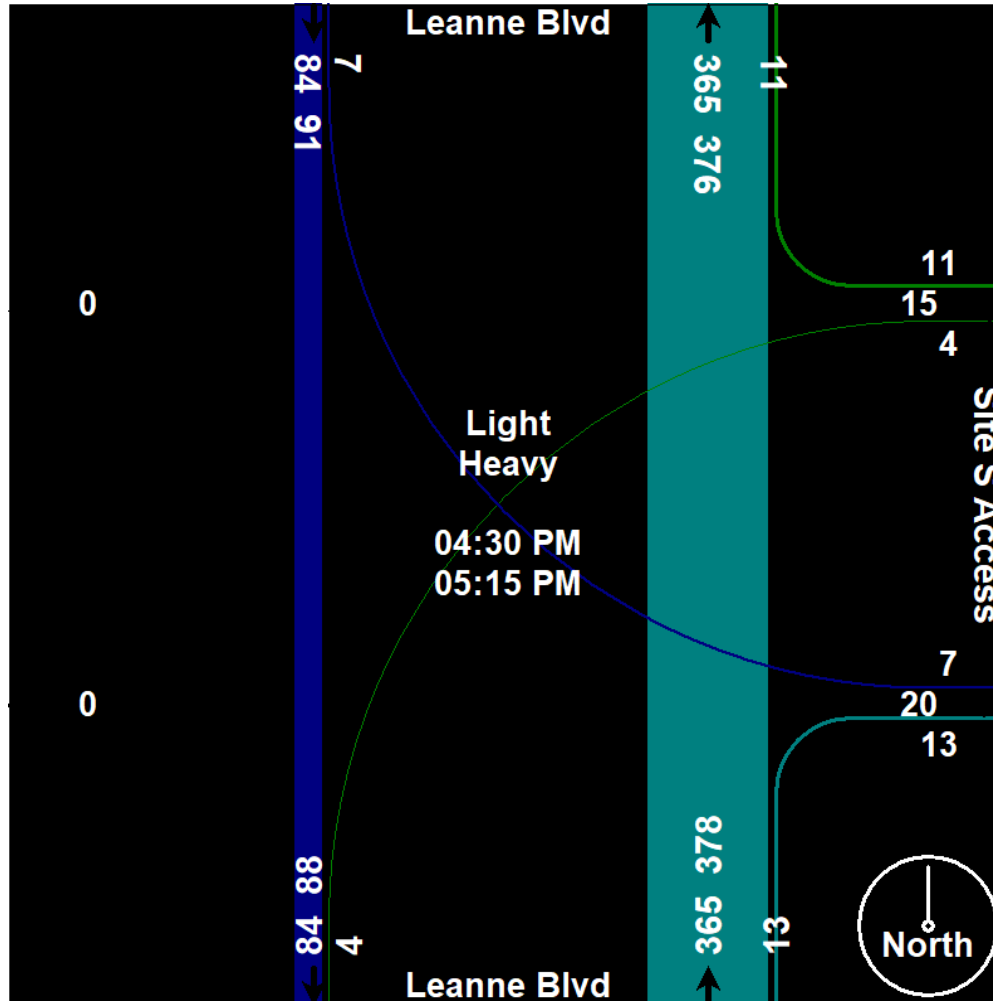
Your Traffic Count Specialist

File Name : Leanne Boulevard at Site S Driveway

Site Code : Loc-4

Start Date : 2026-03-24

Page No : 9

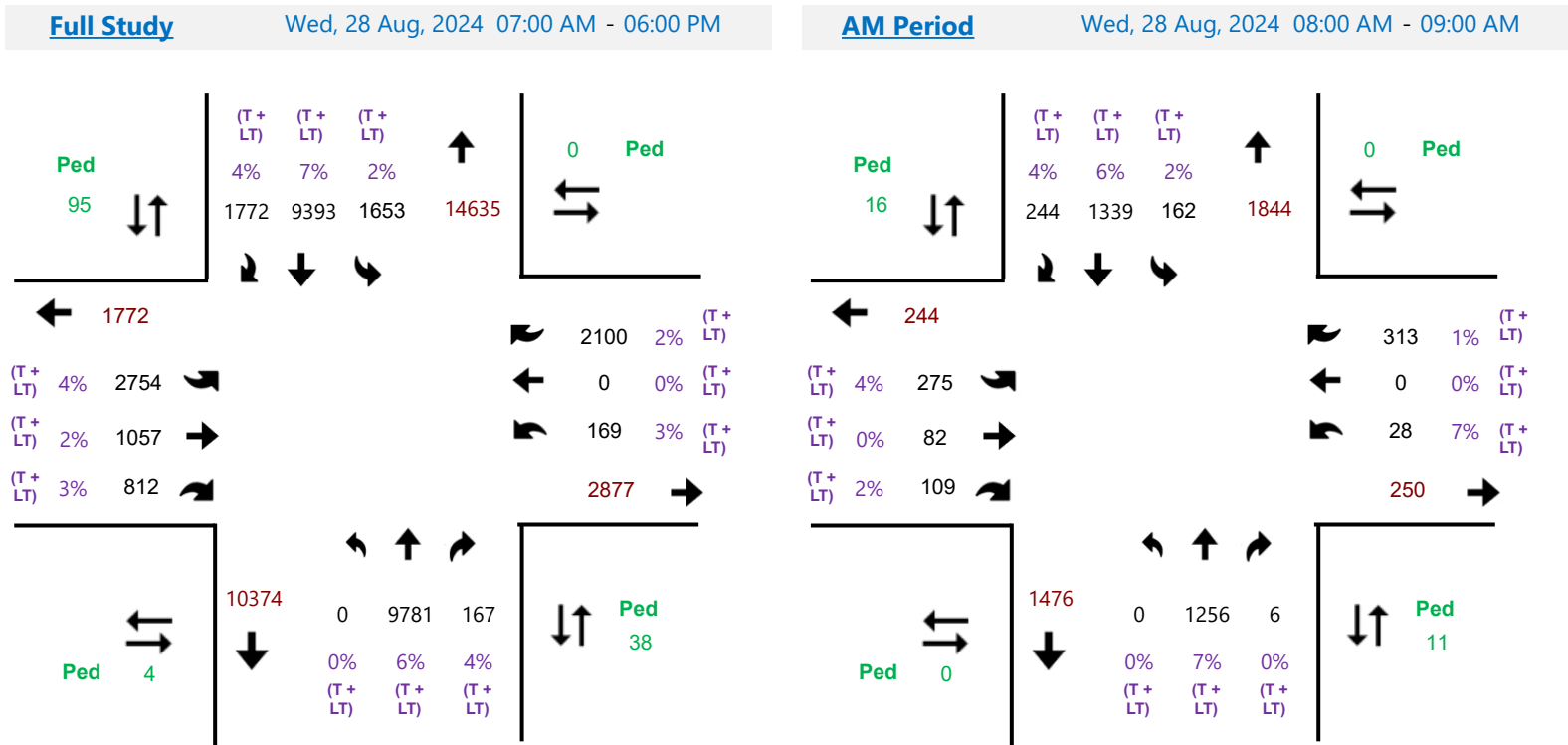




TES - Traffic Engineering System

Turning Movement Total Count and Peak Summary Report

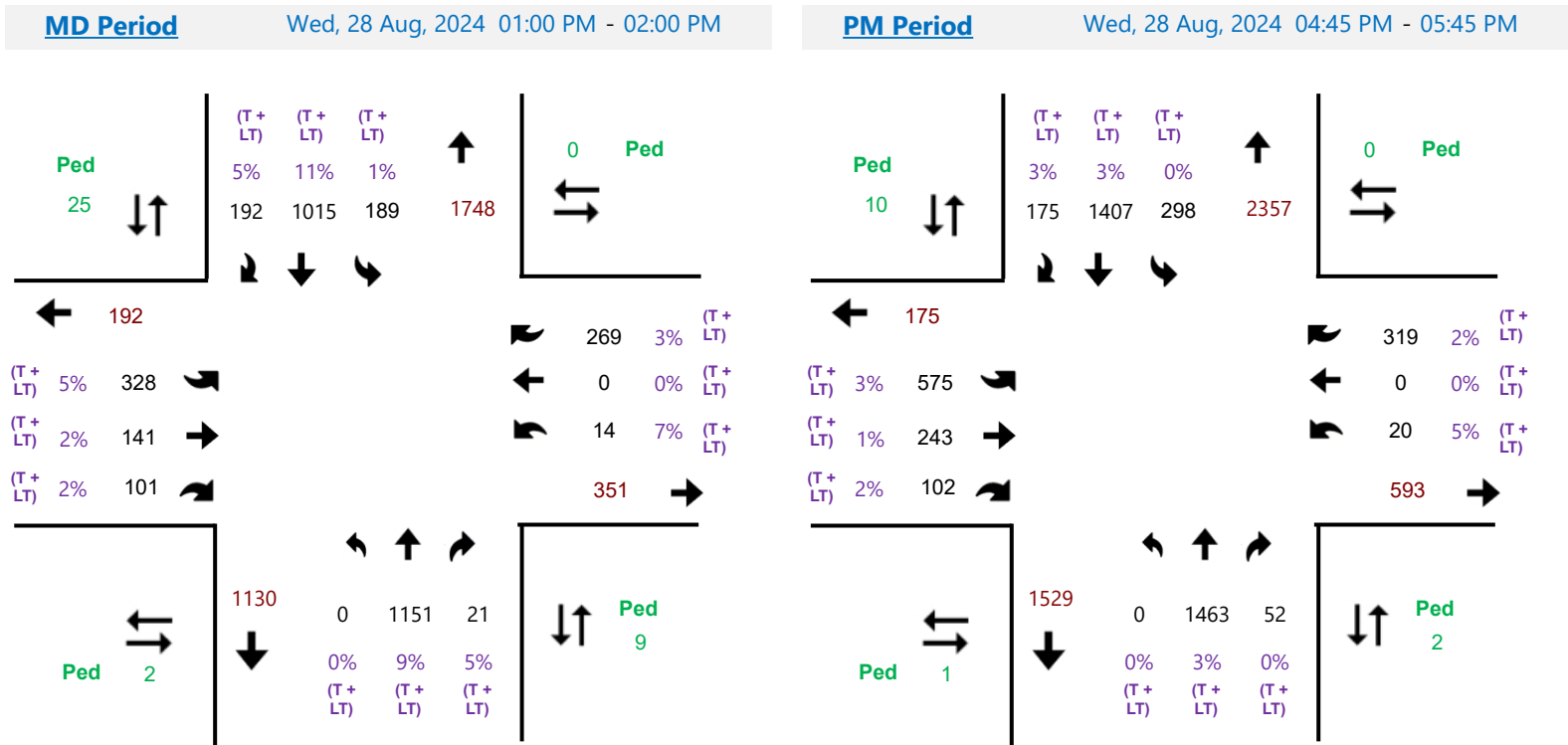
Description: HWY 1 @ SOUTHDOWN RD - RAMP 51
Region: CENTRAL **Hwy #:** HWY 1
LHRS_Offset: 10144_0000_51T **Int. Type:** Cross
Count Date: Wednesday, 28 August, 2024





TES - Traffic Engineering System Turning Movement Total Count and Peak Summary Report

Description: HWY 1 @ SOUTHDOWN RD - RAMP 51
Region: CENTRAL **Hwy #:** HWY 1
LHRS_Offset: 10144_0000_51T **Int. Type:** Cross
Count Date: Wednesday, 28 August, 2024

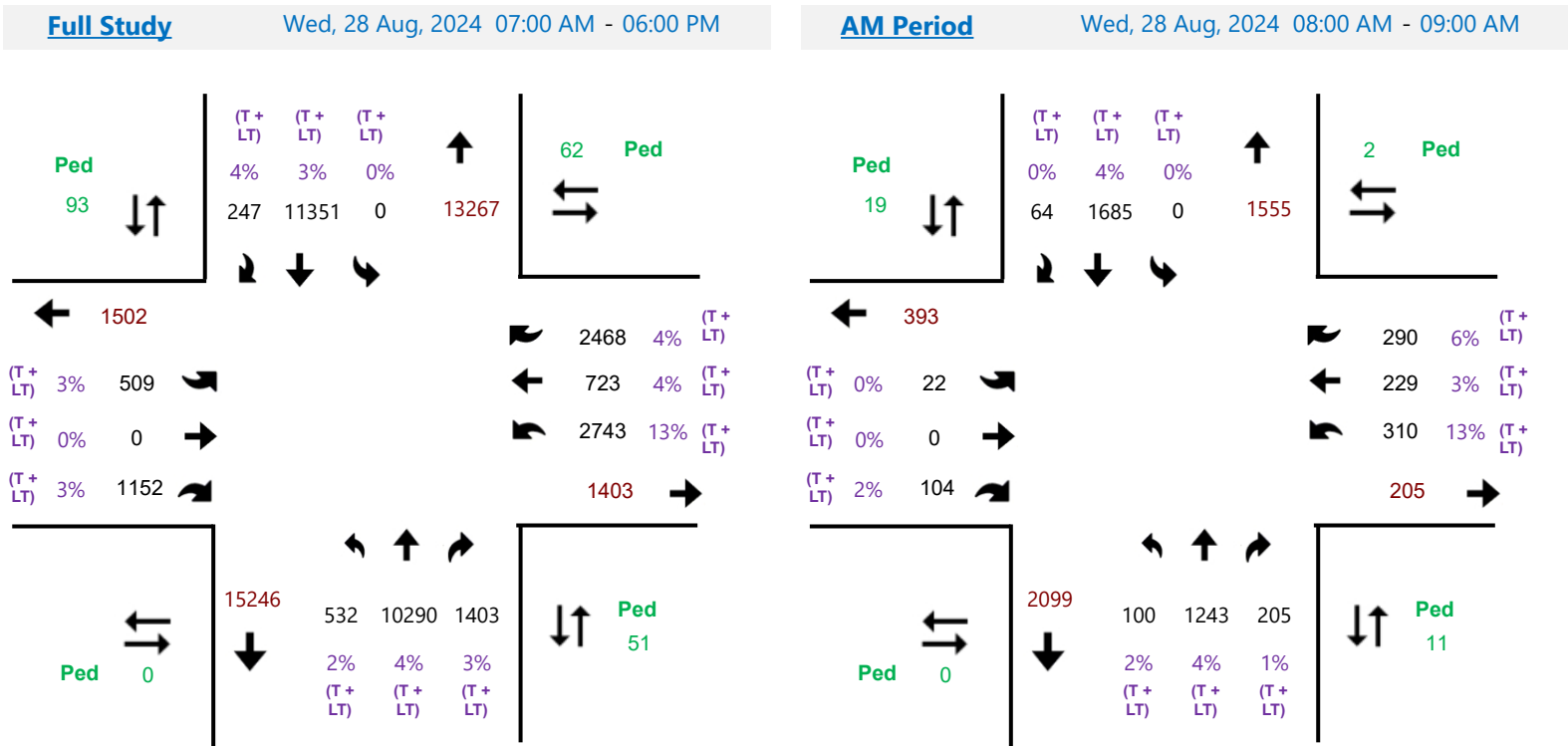




TES - Traffic Engineering System

Turning Movement Total Count and Peak Summary Report

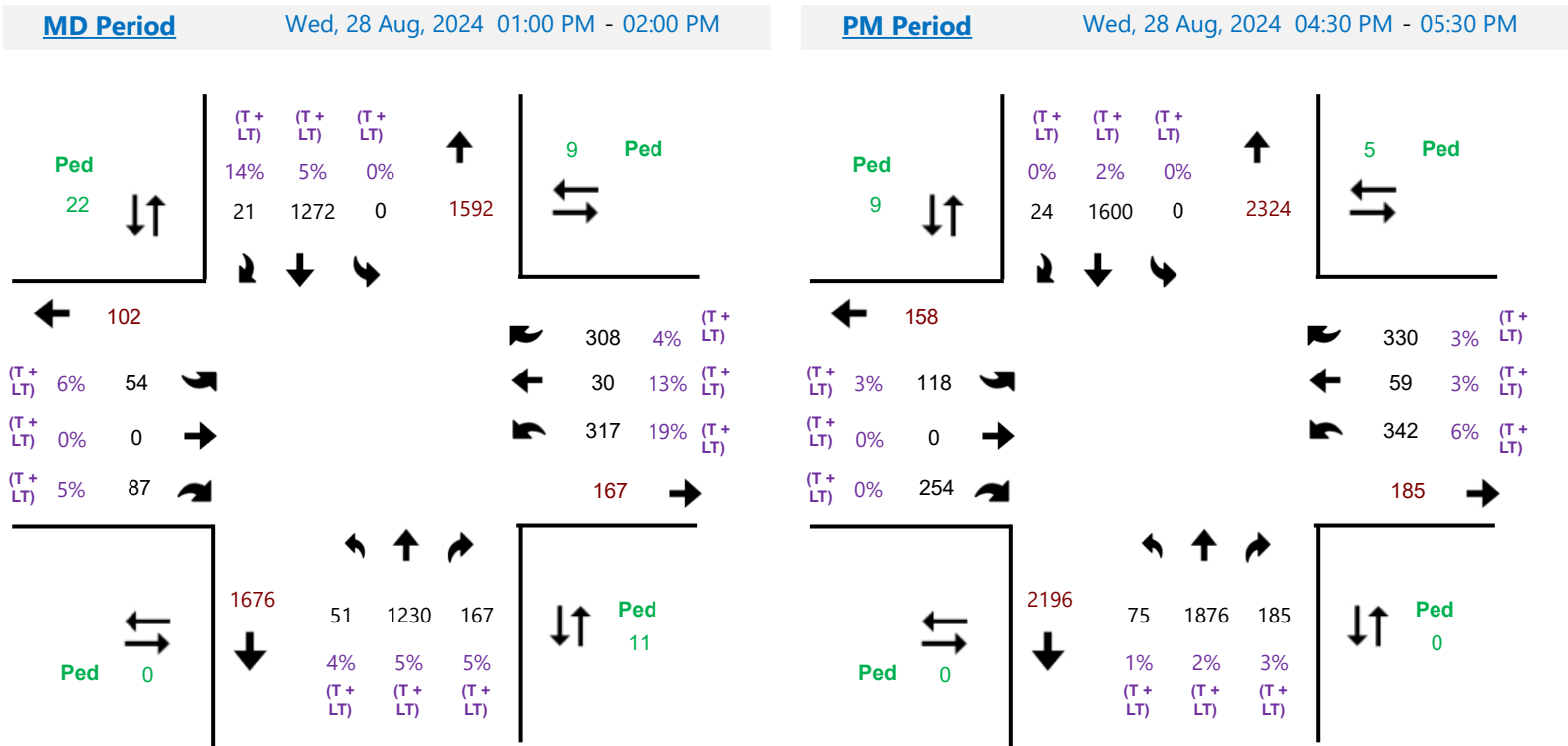
Description: HWY 1 @ SOUTHDOWN RD - RAMP 61
Region: CENTRAL **Hwy #:** HWY 1
LHRS_Offset: 10144_0000_61T **Int. Type:** Cross
Count Date: Wednesday, 28 August, 2024





TES - Traffic Engineering System Turning Movement Total Count and Peak Summary Report

Description: HWY 1 @ SOUTHDOWN RD - RAMP 61
Region: CENTRAL **Hwy #:** HWY 1
LHRS_Offset: 10144_0000_61T **Int. Type:** Cross
Count Date: Wednesday, 28 August, 2024



2023 AM

		Erin Mills Parkway			Intersection Volume				
		Sbd	Nbd		4034				
		1665	1566						
		R	T	L					
		70	1595	0					
North Sheridan Way	Wbd	369	L 58			295 R	798 Wbd	QEW WB Off Ramp	
			T 0			189 T			
	Ebd	248	R 190			314 L	0 Ebd		
		L	T	R					
		110	1213	0					
		2099	1323						
		Sbd	Nbd						
		1435	1599		Intersection Volume				
		Sbd	Nbd		3410				
		R	T	L					
		0	1210	225					
QEW EB Off Ramp	Wbd	0	L 295			466 R	508 Wbd	South Sheridan Way	
			T 183			0 T			
	Ebd	575	R 97			42 L	462 Ebd		
		L	T	R					
		0	838	54					
		1349	892						
		Sbd	Nbd						
		Erin Mills Parkway							

2024 AM

		Erin Mills Parkway			Intersection Volume				
		Sbd	Nbd		4047				
		1749	1555						
		R	T	L					
		64	1685	0					
North Sheridan Way	Wbd	393	L 22			290 R	829 Wbd	QEW WB Off Ramp	
			T 0			229 T			
	Ebd	126	R 104			310 L	0 Ebd		
		L	T	R					
		100	1243	0					
		2099	1343						
		Sbd	Nbd						
		1501	1844		Intersection Volume				
		Sbd	Nbd		3570				
		R	T	L					
		0	1339	162					
QEW EB Off Ramp	Wbd	0	L 275			313 R	341 Wbd	South Sheridan Way	
			T 82			0 T			
	Ebd	466	R 109			28 L	250 Ebd		
		L	T	R					
		0	1256	6					
		1476	1262						
		Sbd	Nbd						
		Erin Mills Parkway							

2023 PM

		Erin Mills Parkway			Intersection Volume			
		Sbd	Nbd		4559			
		1576	2150					
		R	T	L				
		14	1562	0				
North Sheridan Way	Wbd	127	L 68			416 R	869 Wbd	QEW WB Off Ramp
			T 0			51 T		
	Ebd	386	R 318			402 L	0 Ebd	
			L 62	T 1666	R 0			
			2282	1728				
		Sbd	Nbd					
		1597	1863		3815			
		R	T	L				
		0	1316	281				
QEW EB Off Ramp	Wbd	0	L 494			337 R	373 Wbd	Kirkham Dr
			T 182			0 T		
	Ebd	766	R 90			36 L	510 Ebd	
			L 0	T 1032	R 47			
			1442	1079				
		Sbd	Nbd					
			Erin Mills Parkway					

2024 PM

		Erin Mills Parkway			Intersection Volume			
		Sbd	Nbd		4678			
		1624	2324					
		R	T	L				
		24	1600	0				
North Sheridan Way	Wbd	158	L 118			330 R	731 Wbd	QEW WB Off Ramp
			T 0			59 T		
	Ebd	372	R 254			342 L	0 Ebd	
			L 75	T 1876	R 0			
			2196	1951				
		Sbd	Nbd					
		1705	2357		4479			
		R	T	L				
		0	1407	298				
QEW EB Off Ramp	Wbd	0	L 575			319 R	339 Wbd	South Sheridan Way
			T 243			0 T		
	Ebd	920	R 102			20 L	593 Ebd	
			L 0	T 1463	R 52			
			1529	1515				
		Sbd	Nbd					
			Erin Mills Parkway					

Horizon Data Services Ltd

Email: nhyree@gmail.com
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"Your Traffic Count Specialist"

File Name : Erin Mills Parkway at QEW North Terminal
 Site Code : 00000000
 Start Date : 02/02/2023
 Page No : 1

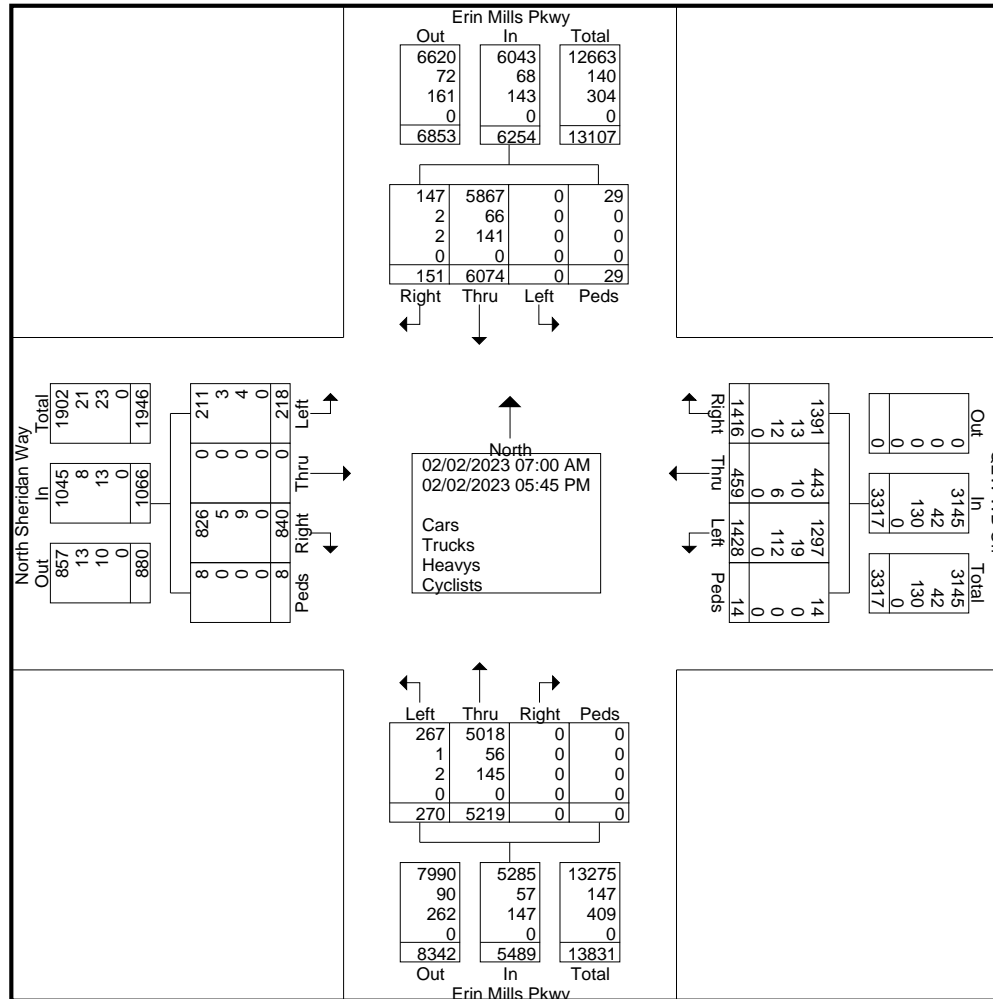
Groups Printed- Cars - Trucks - Heavys - Cyclists

Start Time	Erin Mills Pkwy From North					QEW WB Off From East					Erin Mills Pkwy From South					North Sheridan Way From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	9	252	0	1	262	61	27	84	0	172	0	177	9	0	186	19	0	10	1	30	650
07:15 AM	13	318	0	0	331	54	38	67	2	161	0	181	12	0	193	16	0	4	0	20	705
07:30 AM	10	365	0	3	378	83	47	81	0	211	0	235	10	0	245	20	0	8	0	28	862
07:45 AM	11	434	0	4	449	78	48	94	0	220	0	236	22	0	258	37	0	2	0	39	966
Total	43	1369	0	8	1420	276	160	326	2	764	0	829	53	0	882	92	0	24	1	117	3183
08:00 AM	13	408	0	1	422	72	42	76	0	190	0	267	18	0	285	39	0	10	1	50	947
08:15 AM	25	390	0	0	415	78	48	83	0	209	0	325	30	0	355	52	0	19	0	71	1050
08:30 AM	17	435	0	1	453	68	44	75	0	187	0	325	34	0	359	49	0	19	0	68	1067
08:45 AM	15	362	0	3	380	77	54	80	0	211	0	296	28	0	324	50	0	10	0	60	975
Total	70	1595	0	5	1670	295	188	314	0	797	0	1213	110	0	1323	190	0	58	1	249	4039
04:00 PM	7	387	0	1	395	110	21	85	0	216	0	356	13	0	369	68	0	15	0	83	1063
04:15 PM	3	372	0	2	377	103	16	107	1	227	0	387	11	0	398	67	0	24	0	91	1093
04:30 PM	2	406	0	5	413	95	8	77	2	182	0	410	17	0	427	62	0	16	1	79	1101
04:45 PM	4	383	0	1	388	111	15	124	4	254	0	407	18	0	425	70	0	14	3	87	1154
Total	16	1548	0	9	1573	419	60	393	7	879	0	1560	59	0	1619	267	0	69	4	340	4411
05:00 PM	3	345	0	4	352	116	15	107	1	239	0	374	18	0	392	109	0	24	0	133	1116
05:15 PM	5	428	0	2	435	94	13	94	1	202	0	475	9	0	484	77	0	14	1	92	1213
05:30 PM	5	366	0	1	372	110	13	101	3	227	0	321	9	0	330	69	0	16	0	85	1014
05:45 PM	9	423	0	0	432	106	10	93	0	209	0	447	12	0	459	36	0	13	1	50	1150
Total	22	1562	0	7	1591	426	51	395	5	877	0	1617	48	0	1665	291	0	67	2	360	4493
Grand Total	151	6074	0	29	6254	1416	459	1428	14	3317	0	5219	270	0	5489	840	0	218	8	1066	16126
Apprch %	2.4	97.1	0	0.5		42.7	13.8	43.1	0.4		0	95.1	4.9	0		78.8	0	20.5	0.8		
Total %	0.9	37.7	0	0.2	38.8	8.8	2.8	8.9	0.1	20.6	0	32.4	1.7	0	34	5.2	0	1.4	0	6.6	
Cars	147	5867	0	29	6043	1391	443	1297	14	3145	0	5018	267	0	5285	826	0	211	8	1045	15518
% Cars	97.4	96.6	0	100	96.6	98.2	96.5	90.8	100	94.8	0	96.1	98.9	0	96.3	98.3	0	96.8	100	98	96.2
Trucks	2	66	0	0	68	13	10	19	0	42	0	56	1	0	57	5	0	3	0	8	175
% Trucks	1.3	1.1	0	0	1.1	0.9	2.2	1.3	0	1.3	0	1.1	0.4	0	1	0.6	0	1.4	0	0.8	1.1
Heavys	2	141	0	0	143	12	6	112	0	130	0	145	2	0	147	9	0	4	0	13	433
% Heavys	1.3	2.3	0	0	2.3	0.8	1.3	7.8	0	3.9	0	2.8	0.7	0	2.7	1.1	0	1.8	0	1.2	2.7
Cyclists	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Cyclists	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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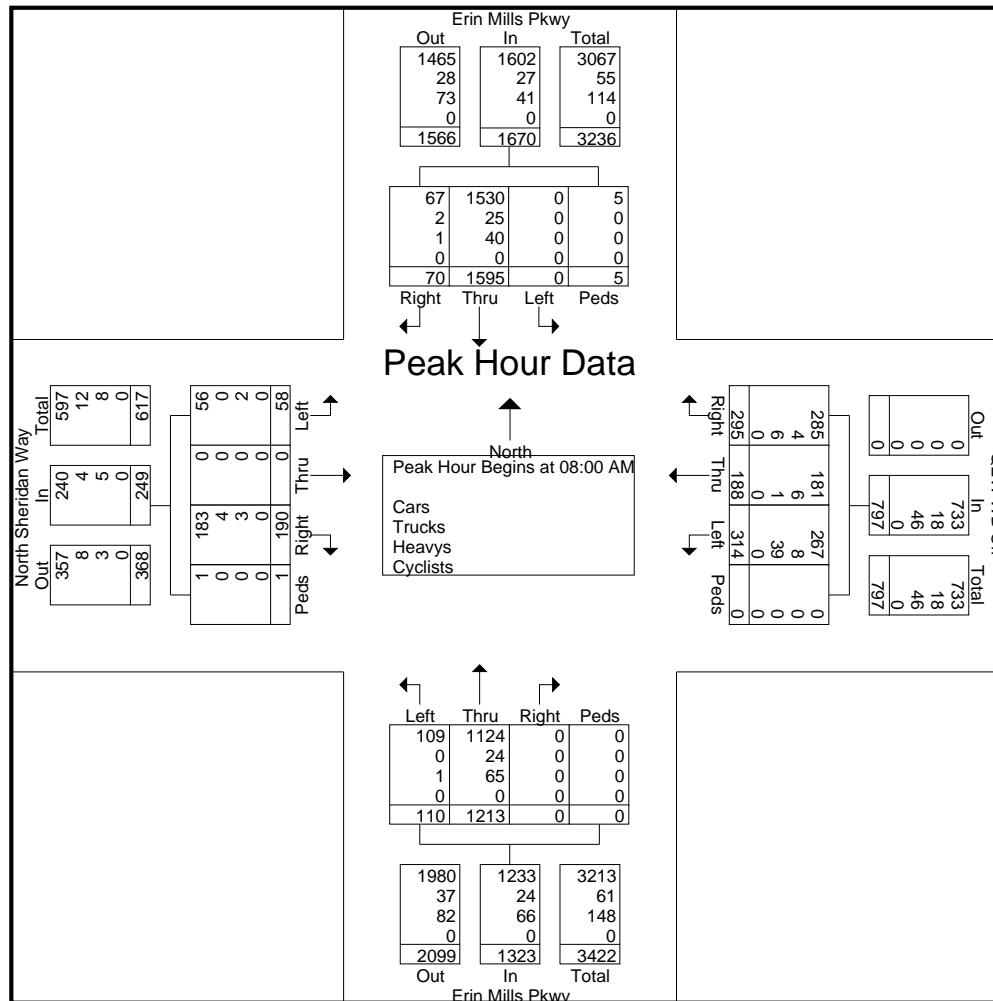
File Name : Erin Mills Parkway at QEW North Terminal
 Site Code : 00000000
 Start Date : 02/02/2023
 Page No : 2



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File Name : Erin Mills Parkway at QEW North Terminal
 Site Code : 00000000
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 Page No : 4

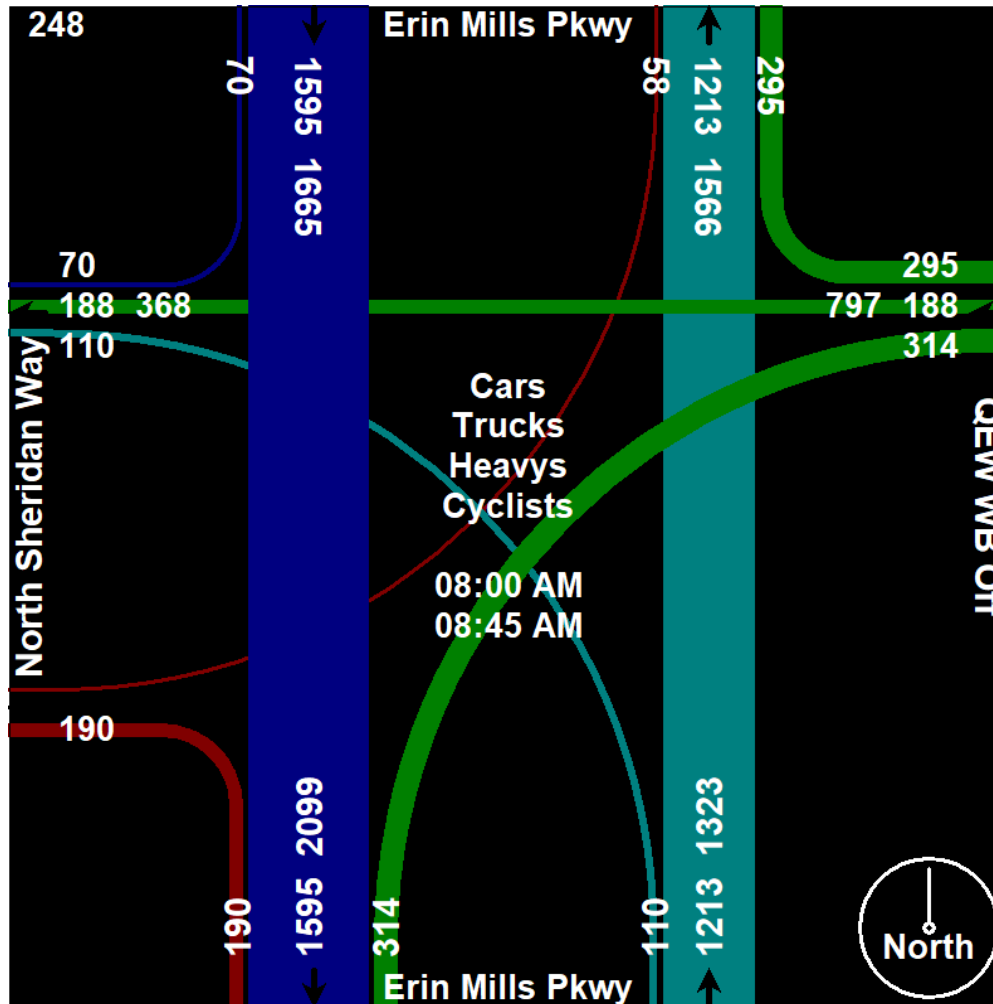


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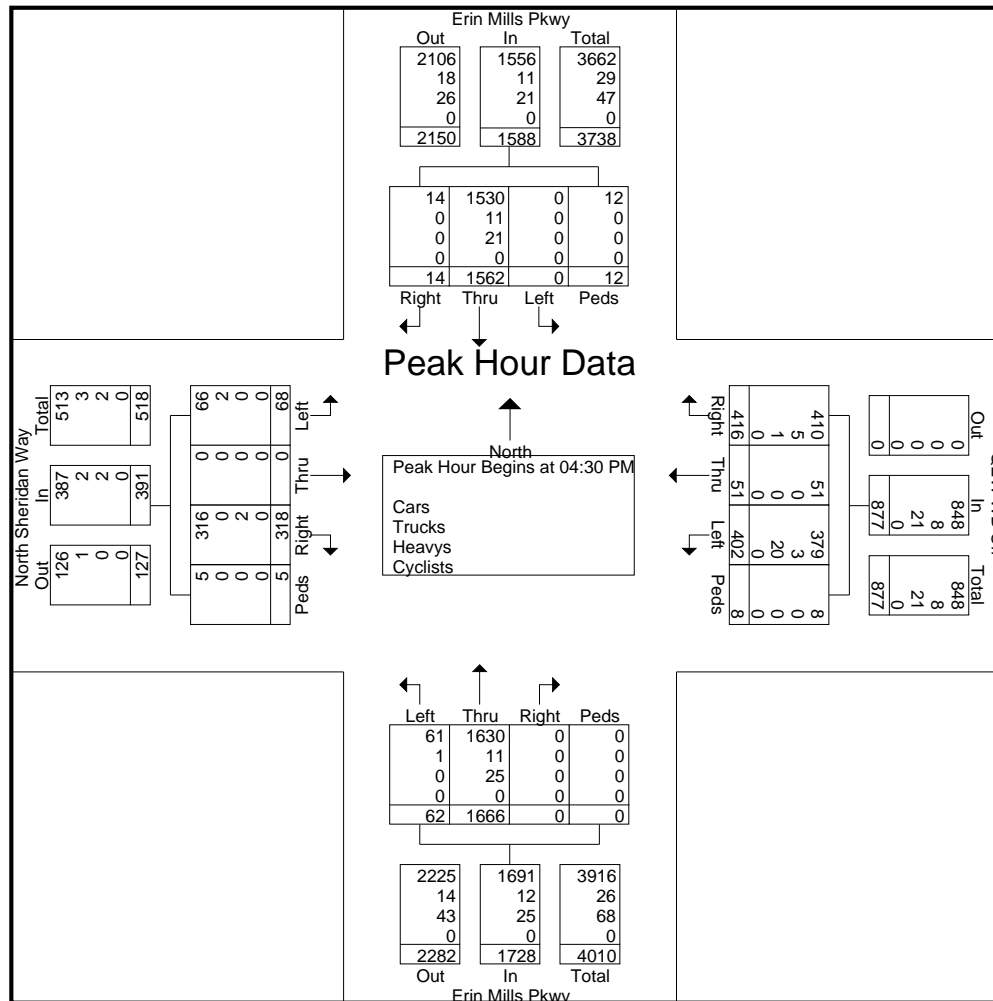
File Name : Erin Mills Parkway at QEW North Terminal
Site Code : 00000000
Start Date : 02/02/2023
Page No : 5



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 Site Code : 00000000
 Start Date : 02/02/2023
 Page No : 7

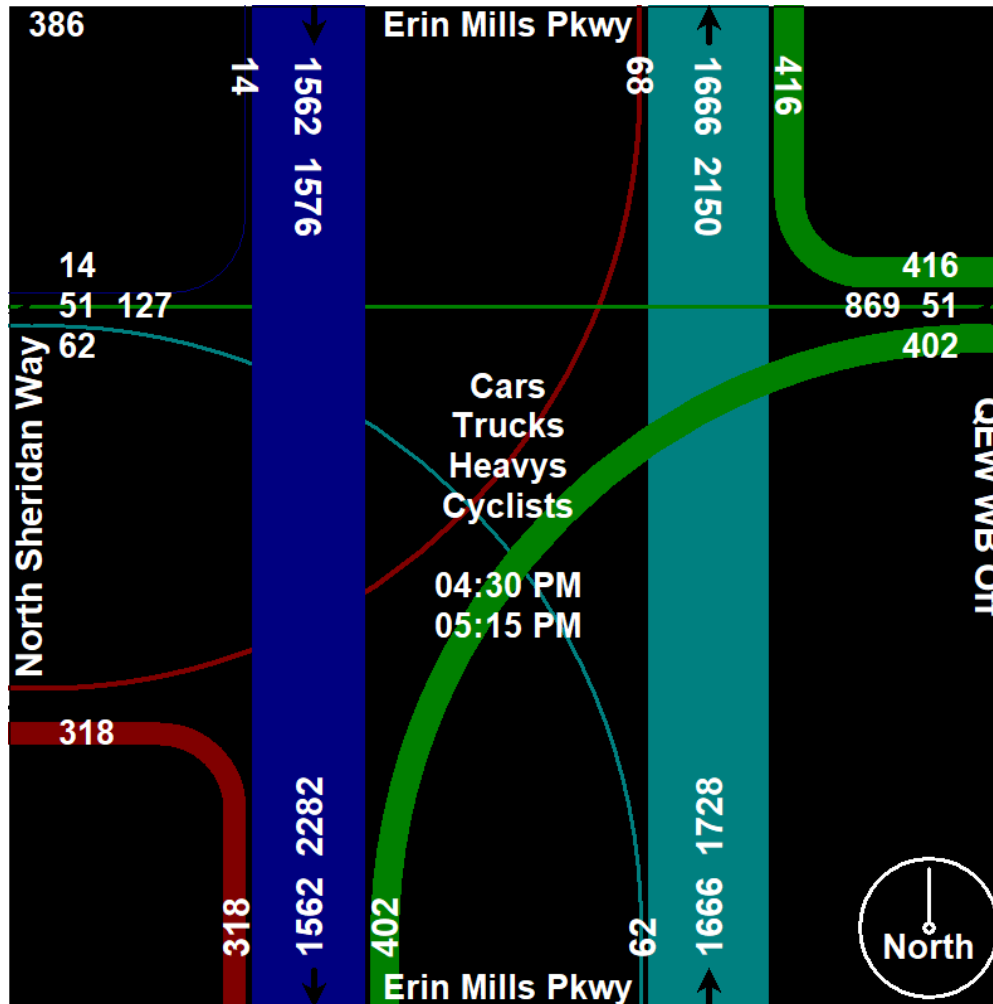


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File Name : Erin Mills Parkway at QEW North Terminal
Site Code : 00000000
Start Date : 02/02/2023
Page No : 8



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File Name : Erin Mills Parkway at QEW South Terminal
 Site Code : 00000000
 Start Date : 02/02/2023
 Page No : 1

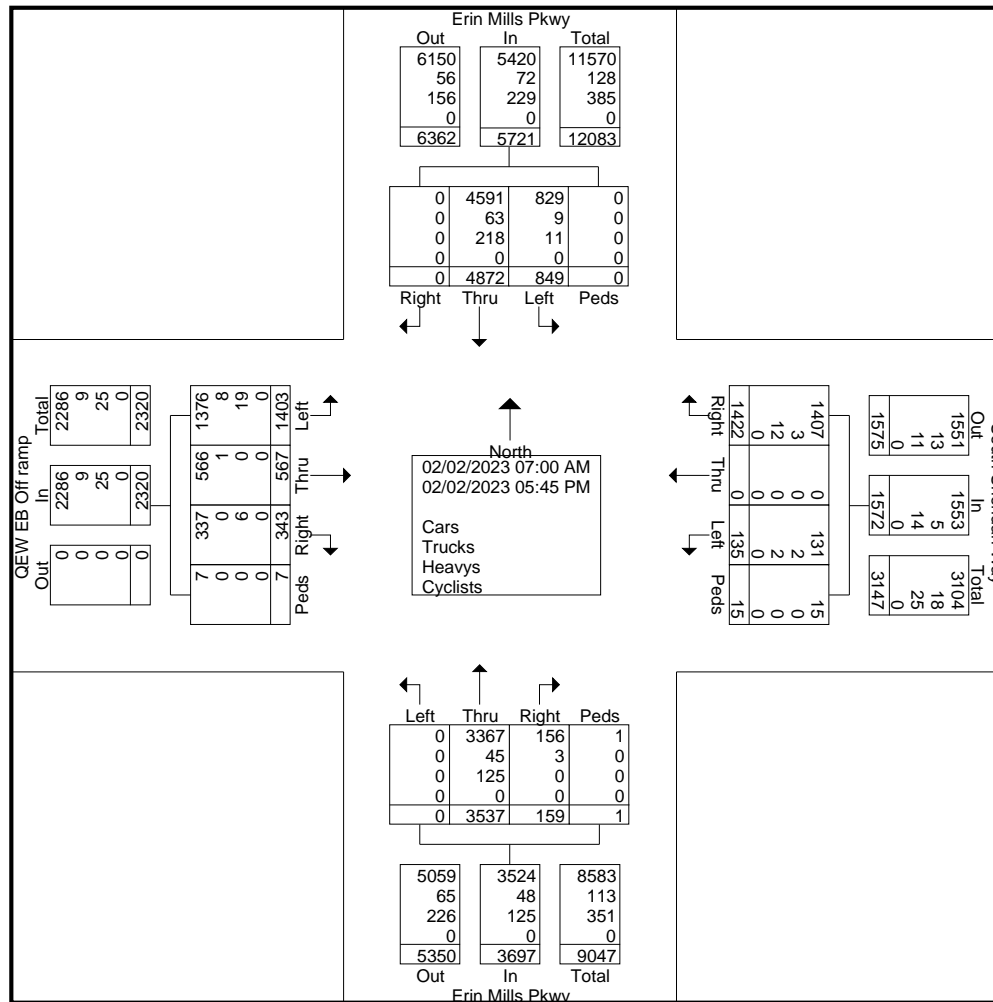
Groups Printed- Cars - Trucks - Heavys - Cyclists

Start Time	Erin Mills Pkwy From North					South Sheridan Way From East					Erin Mills Pkwy From South					QEW EB Off ramp From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	0	202	16	0	218	45	0	3	0	48	1	143	0	0	144	13	8	28	0	49	459
07:15 AM	0	204	20	0	224	53	0	5	2	60	2	137	0	0	139	19	5	42	0	66	489
07:30 AM	0	303	20	0	323	69	0	1	0	70	5	193	0	0	198	12	13	45	0	70	661
07:45 AM	0	370	33	0	403	81	0	16	0	97	5	163	0	0	168	23	17	59	1	100	768
Total	0	1079	89	0	1168	248	0	25	2	275	13	636	0	0	649	67	43	174	1	285	2377
08:00 AM	0	295	48	0	343	110	0	10	0	120	14	204	0	0	218	22	24	63	0	109	790
08:15 AM	0	320	53	0	373	113	0	12	0	125	22	232	0	0	254	25	67	73	0	165	917
08:30 AM	0	291	61	0	352	125	0	12	0	137	11	186	0	0	197	26	61	99	0	186	872
08:45 AM	0	304	63	0	367	118	0	8	0	126	7	216	0	0	223	24	31	60	0	115	831
Total	0	1210	225	0	1435	466	0	42	0	508	54	838	0	0	892	97	183	295	0	575	3410
04:00 PM	0	296	53	0	349	93	0	8	1	102	11	242	0	0	253	21	44	85	0	150	854
04:15 PM	0	332	66	0	398	102	0	4	0	106	15	300	0	1	316	26	35	78	0	139	959
04:30 PM	0	329	75	0	404	91	0	7	2	100	11	252	0	0	263	21	45	114	1	181	948
04:45 PM	0	310	60	0	370	85	0	13	3	101	8	237	0	0	245	21	35	163	3	222	938
Total	0	1267	254	0	1521	371	0	32	6	409	45	1031	0	1	1077	89	159	440	4	692	3699
05:00 PM	0	327	69	0	396	85	0	5	1	91	4	272	0	0	276	18	46	128	0	192	955
05:15 PM	0	297	65	0	362	84	0	6	3	93	12	278	0	0	290	25	54	138	1	218	963
05:30 PM	0	360	80	0	440	86	0	12	3	101	13	224	0	0	237	24	33	101	0	158	936
05:45 PM	0	332	67	0	399	82	0	13	0	95	18	258	0	0	276	23	49	127	1	200	970
Total	0	1316	281	0	1597	337	0	36	7	380	47	1032	0	0	1079	90	182	494	2	768	3824
Grand Total	0	4872	849	0	5721	1422	0	135	15	1572	159	3537	0	1	3697	343	567	1403	7	2320	13310
Apprch %	0	85.2	14.8	0		90.5	0	8.6	1		4.3	95.7	0	0		14.8	24.4	60.5	0.3		
Total %	0	36.6	6.4	0	43	10.7	0	1	0.1	11.8	1.2	26.6	0	0	27.8	2.6	4.3	10.5	0.1	17.4	
Cars	0	4591	829	0	5420	1407	0	131	15	1553	156	3367	0	1	3524	337	566	1376	7	2286	12783
% Cars	0	94.2	97.6	0	94.7	98.9	0	97	100	98.8	98.1	95.2	0	100	95.3	98.3	99.8	98.1	100	98.5	96
Trucks	0	63	9	0	72	3	0	2	0	5	3	45	0	0	48	0	1	8	0	9	134
% Trucks	0	1.3	1.1	0	1.3	0.2	0	1.5	0	0.3	1.9	1.3	0	0	1.3	0	0.2	0.6	0	0.4	1
Heavys	0	218	11	0	229	12	0	2	0	14	0	125	0	0	125	6	0	19	0	25	393
% Heavys	0	4.5	1.3	0	4	0.8	0	1.5	0	0.9	0	3.5	0	0	3.4	1.7	0	1.4	0	1.1	3
Cyclists	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Cyclists	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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"Your Traffic Count Specialist"

File Name : Erin Mills Parkway at QEW South Terminal
 Site Code : 00000000
 Start Date : 02/02/2023
 Page No : 2

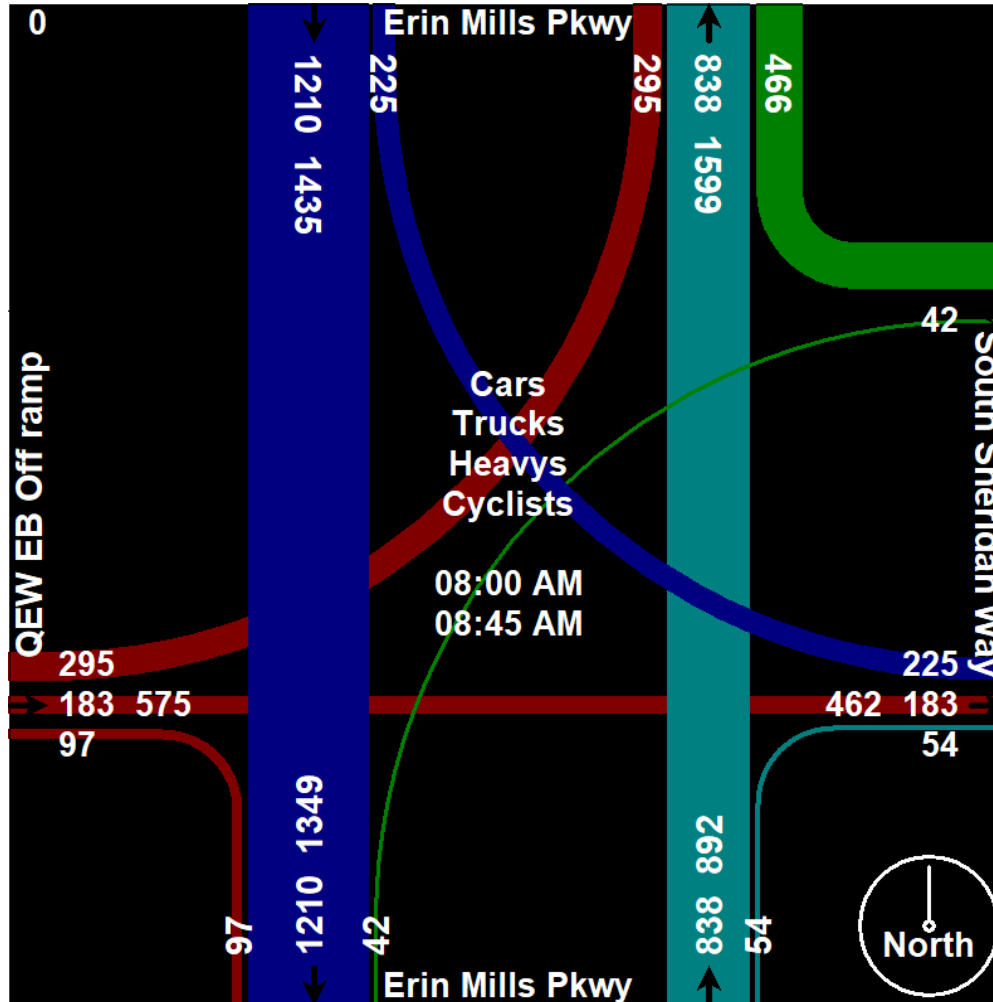


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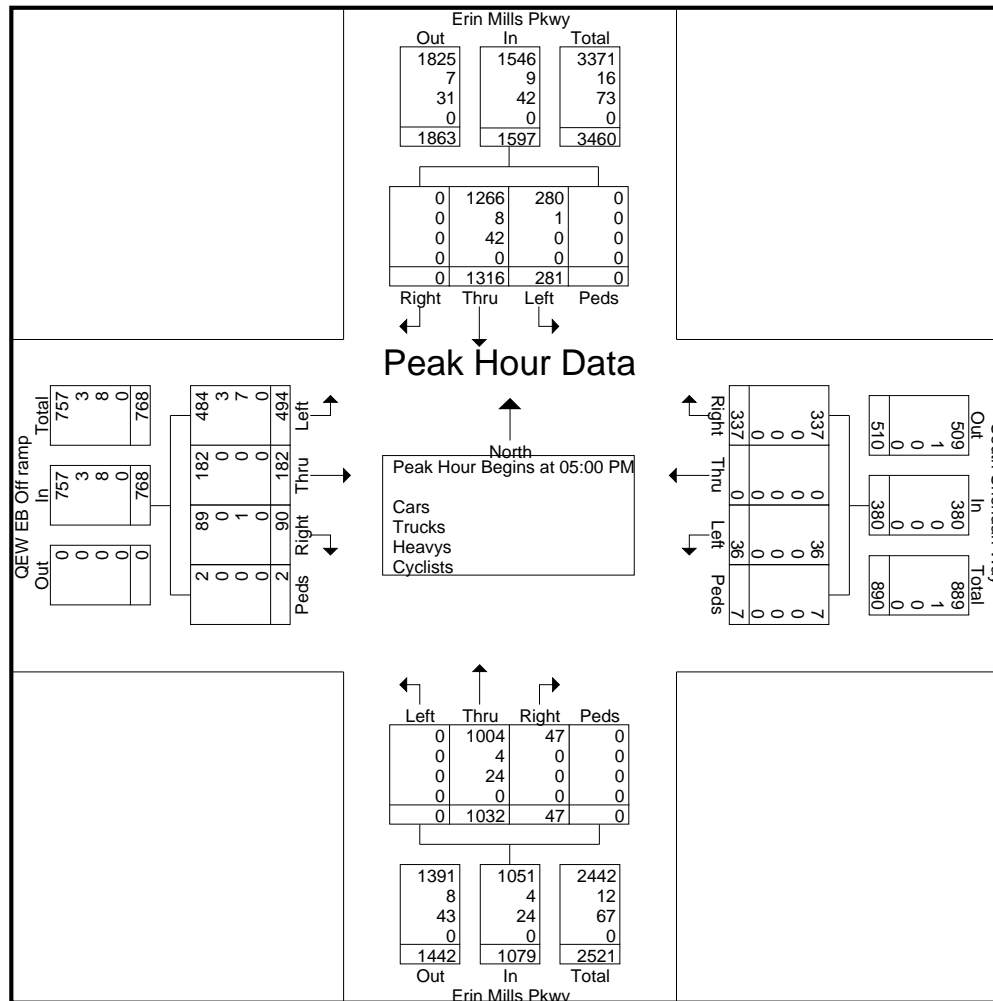
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 Site Code : 00000000
 Start Date : 02/02/2023
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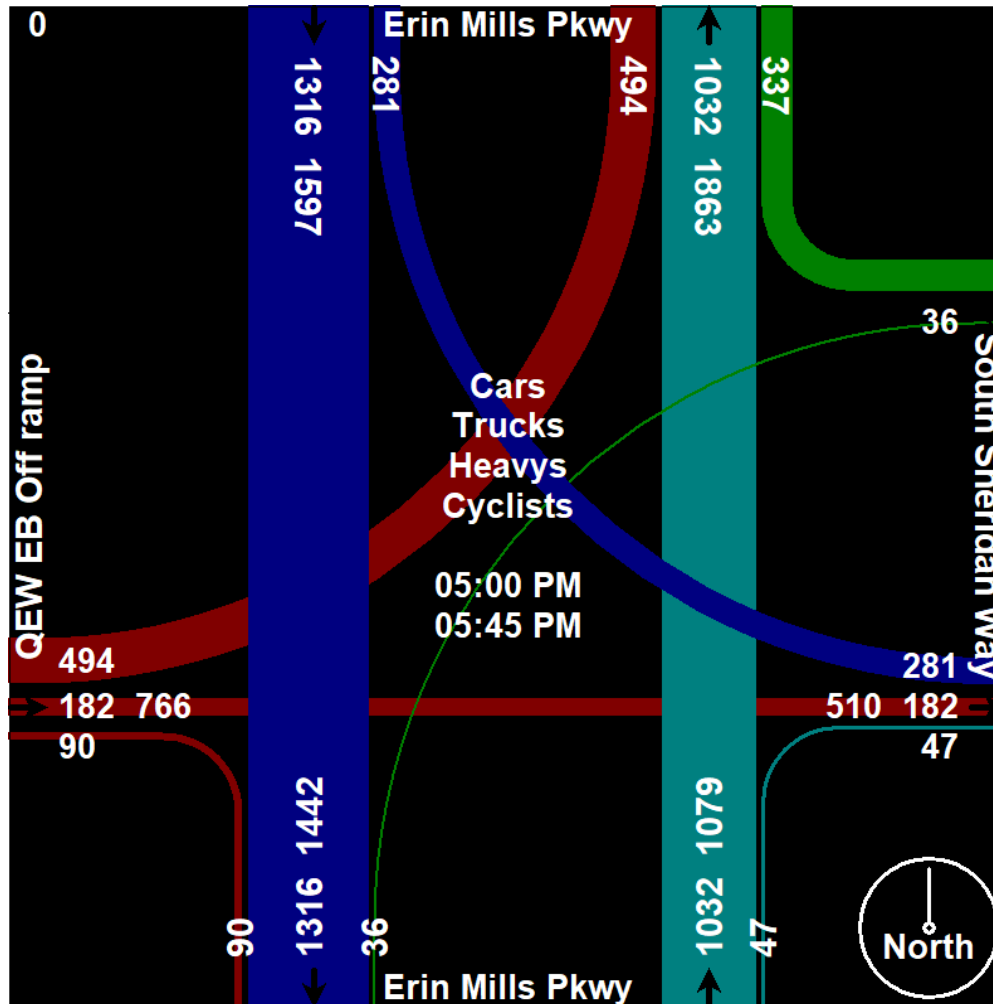
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 Site Code : 00000000
 Start Date : 02/02/2023
 Page No : 8



APPENDIX

C LOS Definitions



LEVEL OF SERVICE DEFINITIONS AT SIGNALIZED INTERSECTIONS⁽¹⁾

Level of service for signalized intersections is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Specifically, level-of-service (LOS) criteria are stated in terms of the average control delay per vehicle, typically for a 15-min analysis period. The criteria are given in the table below. Delay may be measured in the field or estimated using software such as Highway Capacity Software. Delay is a complex measure and is dependent upon a number of variables, including quality of progression, the cycle length, the green ratio, and the v/c ratio for the lane group in question.

Level of Service	Features	Control Delay per vehicle (sec)
A	LOS A describes operations with very low delay, up to 10 sec per vehicle. This level of service occurs when progression is extremely favourable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.	≤ 10
B	LOS B describes operations with delay greater than 10 and up to 20 sec per vehicle. This level generally occurs with good progression, short cycle lengths, or both. More vehicles stop than with LOS A, causing higher levels of average delay.	> 10 and ≤ 20
C	LOS C describes operations with delay greater than 20 and up to 35 sec per vehicle. These higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, though many still pass through the intersection without stopping.	> 20 and ≤ 35
D	LOS D describes operations with delay greater than 35 and up to 55 sec per vehicle. At level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavourable progression, long cycle lengths, of high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.	> 35 and ≤ 55
E	LOS E describes operations with delay greater than 55 and up to 80 sec per vehicle. This level is considered by many agencies to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.	> 55 and ≤ 80
F	LOS F describes operations with delay in excess of 80 sec per vehicle. This level, considered to be unacceptable to most drivers, often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.	> 80

(1) Highway Capacity Manual 2000

LEVEL OF SERVICE DEFINITIONS AT UNSIGNALIZED INTERSECTIONS⁽¹⁾

The level of service criteria for unsignalized intersections are given in the table below. As used here, total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line; this time includes the time required for the vehicle to travel from the last-in-queue position to the first-in-queue position. The average total delay for any particular minor movement is a function of the service rate or capacity of the approach and the degree of saturation.

Level of Service	Features	Average Total Delay (sec/veh)
A	Little or no traffic delay occurs. Approaches appear open, turning movements are easily made, and drivers have freedom of operation.	≤ 10
B	Short traffic delays occur. Many drivers begin to feel somewhat restricted in terms of freedom of operation.	> 10 and ≤ 15
C	Average traffic delays occur. Operations are generally stable, but drivers emerging from the minor street may experience difficulty in completing their movement. This may occasionally impact on the stability of flow on the major street.	> 15 and ≤ 25
D	Long traffic delays occur. Motorists emerging from the minor street experience significant restriction and frustration. Drivers on the major street will experience congestion and delay as drivers emerging from the minor street interfere with the major through movements.	> 25 and ≤ 35
E	Very long traffic delays occur. Operations approach the capacity of the intersection.	> 35 and ≤ 50
F	Saturation occurs, with vehicle demand exceeding the available capacity. Very long traffic delays occur.	> 50

(1) Highway Capacity Manual 2000.

APPENDIX

D Existing Synchro Reports



Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

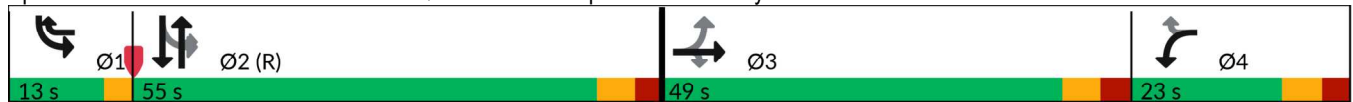
Existing AM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	286	86	114	29	323	1269	7	167	1353
Future Volume (vph)	286	86	114	29	323	1269	7	167	1353
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	23.0	13.0	55.0	55.0	13.0	55.0
Total Split (%)	35.0%	35.0%	35.0%	16.4%	9.3%	39.3%	39.3%	9.3%	39.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	21.9	21.9	21.9	10.2	28.8	72.8	72.8	94.7	72.8
Actuated g/C Ratio	0.16	0.16	0.16	0.07	0.21	0.52	0.52	0.68	0.52
v/c Ratio	0.75	0.73	0.35	0.26	0.80	0.54	0.01	0.50	0.57
Control Delay (s/veh)	72.8	71.2	10.5	66.8	45.2	25.8	0.0	31.7	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.8	71.2	10.5	66.8	45.2	25.8	0.0	31.7	12.9
LOS	E	E	B	E	D	C	A	C	B
Approach Delay (s/veh)		57.5				25.7			14.9
Approach LOS		E				C			B

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 14 (10%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay (s/veh): 27.5 Intersection LOS: C
 Intersection Capacity Utilization 70.6% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

Existing AM
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	197	203	123	31	347	1365	8	180	1455
v/c Ratio	0.75	0.73	0.35	0.26	0.80	0.54	0.01	0.50	0.57
Control Delay (s/veh)	72.8	71.2	10.5	66.8	45.2	25.8	0.0	31.7	12.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.8	71.2	10.5	66.8	45.2	25.8	0.0	31.7	12.9
Queue Length 50th (m)	58.5	60.2	0.0	8.7	57.8	102.7	0.0	9.9	98.1
Queue Length 95th (m)	82.6	84.2	17.2	19.7	91.8	139.8	0.0	m49.1	105.2
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	532	555	190	432	2550	846	363	2574
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.38	0.22	0.16	0.80	0.54	0.01	0.50	0.57

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

Existing AM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	286	86	114	29	0	323	0	1269	7	167	1353	0
Future Volume (vph)	286	86	114	29	0	323	0	1269	7	167	1353	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1776	1566	1668		1581		4902	1526	1750	4948	
Flt Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.13	1.00	
Satd. Flow (perm)	1696	1776	1566	1668		1581		4902	1526	244	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	308	92	123	31	0	347	0	1365	8	180	1455	0
RTOR Reduction (vph)	0	0	104	0	0	111	0	0	4	0	0	0
Lane Group Flow (vph)	197	203	19	31	0	236	0	1365	4	180	1455	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	21.9	21.9	21.9	6.2		24.6		70.0	70.0	88.4	70.0	
Effective Green, g (s)	21.9	21.9	21.9	6.2		24.6		70.0	70.0	88.4	70.0	
Actuated g/C Ratio	0.16	0.16	0.16	0.04		0.18		0.50	0.50	0.63	0.50	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	265	277	244	73		277		2451	763	352	2474	
v/s Ratio Prot				0.02		c0.11		0.28		0.07	c0.29	
v/s Ratio Perm	c0.12	0.11	0.01			0.04			0.00	0.26		
v/c Ratio	0.74	0.73	0.08	0.42		0.85		0.56	0.01	0.51	0.59	
Uniform Delay, d1	56.4	56.3	50.4	65.2		55.9		24.3	17.5	13.7	24.8	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	2.46	0.48	
Incremental Delay, d2	10.7	9.6	0.1	3.9		21.4		0.9	0.0	1.0	0.8	
Delay (s)	67.1	65.9	50.6	69.1		77.3		25.2	17.6	34.7	12.6	
Level of Service	E	E	D	E		E		C	B	C	B	
Approach Delay (s/veh)		62.7			76.6			25.1			15.0	
Approach LOS		E			E			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			30.9									C
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			70.6%									C
Analysis Period (min)			15									
c Critical Lane Group												

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

Existing AM
04/17/2026

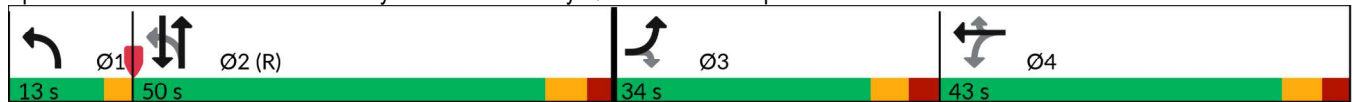


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	23	108	323	239	302	103	1256	1702
Future Volume (vph)	23	108	323	239	302	103	1256	1702
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	8.9	8.9	33.4	33.4	33.4	77.7	63.6	63.6
Actuated g/C Ratio	0.06	0.06	0.24	0.24	0.24	0.56	0.45	0.45
v/c Ratio	0.21	0.56	0.82	0.74	0.54	0.60	0.58	0.66
Control Delay (s/veh)	66.1	21.1	67.7	59.8	7.3	43.1	40.3	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.1	21.1	67.7	59.8	7.3	43.1	40.3	30.2
LOS	E	C	E	E	A	D	D	C
Approach Delay (s/veh)				44.0			40.5	30.2
Approach LOS				D			D	C

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 36.4 Intersection LOS: D
 Intersection Capacity Utilization 69.3% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

Existing AM
04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	24	115	292	306	321	110	1336	1881
v/c Ratio	0.21	0.56	0.82	0.74	0.54	0.60	0.58	0.66
Control Delay (s/veh)	66.1	21.1	67.7	59.8	7.3	43.1	40.3	30.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.1	21.1	67.7	59.8	7.3	43.1	40.3	30.2
Queue Length 50th (m)	6.8	0.0	85.2	87.4	0.0	20.1	103.0	85.1
Queue Length 95th (m)	16.5	19.5	112.5	112.9	22.8	m43.3	165.7	124.8
Internal Link Dist (m)				362.3			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	394	405	467	636	197	2289	2866
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.29	0.72	0.66	0.50	0.56	0.58	0.66

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

Existing AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	23	0	108	323	239	302	103	1256	0	0	1702	66
Future Volume (vph)	23	0	108	323	239	302	103	1256	0	0	1702	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1785		1566	1501	1728	1486	1750	5043			6311	
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.06	1.00			1.00	
Satd. Flow (perm)	1785		1566	1501	1728	1486	116	5043			6311	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	24	0	115	344	254	321	110	1336	0	0	1811	70
RTOR Reduction (vph)	0	0	108	0	0	244	0	0	0	0	3	0
Lane Group Flow (vph)	24	0	7	292	306	77	110	1336	0	0	1878	0
Confl. Peds. (#/hr)	2					2	19		11	11		19
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	8.9		8.9	33.4	33.4	33.4	73.7	63.5			63.5	
Effective Green, g (s)	8.9		8.9	33.4	33.4	33.4	73.7	63.5			63.5	
Actuated g/C Ratio	0.06		0.06	0.24	0.24	0.24	0.53	0.45			0.45	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	113		99	358	412	354	180	2287			2862	
v/s Ratio Prot	c0.01						c0.04	0.26			c0.30	
v/s Ratio Perm			0.00	c0.19	0.18	0.05	0.28					
v/c Ratio	0.21		0.07	0.82	0.74	0.22	0.61	0.58			0.66	
Uniform Delay, d1	62.2		61.7	50.4	49.3	42.8	22.3	28.4			29.8	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.34	1.29			0.92	
Incremental Delay, d2	0.9		0.3	13.3	7.1	0.3	5.1	0.9			1.1	
Delay (s)	63.2		62.0	63.7	56.4	43.1	35.1	37.5			28.4	
Level of Service	E		E	E	E	D	D	D			C	
Approach Delay (s/veh)		62.2			54.1			37.3			28.4	
Approach LOS		E			D			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			37.8									D
HCM 2000 Volume to Capacity ratio			0.66									
Actuated Cycle Length (s)			140.0							24.0		
Intersection Capacity Utilization			69.3%									C
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

Existing AM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	55	69	172	79	80	43	1631	125	57	1578	119
Future Volume (vph)	47	55	69	172	79	80	43	1631	125	57	1578	119
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	24.6	24.6	24.6	24.6	24.6	24.6	101.6	92.0	92.0	102.1	92.2	92.2
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.73	0.66	0.66	0.73	0.66	0.66
v/c Ratio	0.24	0.18	0.23	0.78	0.27	0.26	0.20	0.51	0.15	0.28	0.49	0.12
Control Delay (s/veh)	51.8	49.8	12.1	76.9	50.1	10.5	4.3	7.6	0.6	9.4	14.0	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.8	49.8	12.1	76.9	50.1	10.5	4.3	7.6	0.6	9.4	14.0	4.1
LOS	D	D	B	E	D	B	A	A	A	A	B	A
Approach Delay (s/veh)		35.1			54.5			7.1			13.2	
Approach LOS		D			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay (s/veh): 14.7 Intersection LOS: B
 Intersection Capacity Utilization 84.5% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

Existing AM
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	49	57	72	179	82	83	45	1699	130	59	1644	124
v/c Ratio	0.24	0.18	0.23	0.78	0.27	0.26	0.20	0.51	0.15	0.28	0.49	0.12
Control Delay (s/veh)	51.8	49.8	12.1	76.9	50.1	10.5	4.3	7.6	0.6	9.4	14.0	4.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.8	49.8	12.1	76.9	50.1	10.5	4.3	7.6	0.6	9.4	14.0	4.1
Queue Length 50th (m)	12.5	14.3	0.3	50.5	20.9	0.0	0.9	130.8	0.2	4.1	86.6	3.2
Queue Length 95th (m)	m23.0	m25.3	m13.3	73.0	34.5	14.0	m2.1	28.7	0.0	10.3	120.7	13.2
Internal Link Dist (m)		94.8			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	342	528	482	380	504	485	261	3345	895	237	3322	1035
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.11	0.15	0.47	0.16	0.17	0.17	0.51	0.15	0.25	0.49	0.12

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















Existing AM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	47	55	69	172	79	80	43	1631	125	57	1578	119	
Future Volume (vph)	47	55	69	172	79	80	43	1631	125	57	1578	119	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98	
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1585	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524	
Fl _t Permitted	0.70	1.00	1.00	0.72	1.00	1.00	0.11	1.00	1.00	0.10	1.00	1.00	
Satd. Flow (perm)	1174	1812	1481	1307	1731	1463	206	5092	1322	179	5043	1524	
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Adj. Flow (vph)	49	57	72	179	82	83	45	1699	130	59	1644	124	
RTOR Reduction (vph)	0	0	59	0	0	68	0	0	27	0	0	32	
Lane Group Flow (vph)	49	57	13	179	82	15	45	1699	103	59	1644	92	
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8	
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	
Protected Phases		8			4		1	6		5	2		
Permitted Phases	8		8	4		4	6		6	2		2	
Actuated Green, G (s)	24.6	24.6	24.6	24.6	24.6	24.6	97.2	91.4	91.4	97.6	91.6	91.6	
Effective Green, g (s)	24.6	24.6	24.6	24.6	24.6	24.6	97.2	91.4	91.4	97.6	91.6	91.6	
Actuated g/C Ratio	0.18	0.18	0.18	0.18	0.18	0.18	0.69	0.65	0.65	0.70	0.65	0.65	
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	206	318	260	229	304	257	206	3324	863	187	3299	997	
v/s Ratio Prot		0.03			0.05		0.01	c0.33		c0.01	0.33		
v/s Ratio Perm	0.04		0.01	c0.14		0.01	0.14		0.08	0.21		0.06	
v/c Ratio	0.24	0.18	0.05	0.78	0.27	0.06	0.22	0.51	0.12	0.32	0.50	0.09	
Uniform Delay, d1	49.6	49.1	48.0	55.1	49.9	48.0	8.0	12.7	9.1	8.4	12.4	8.9	
Progression Factor	1.04	1.04	1.13	1.00	1.00	1.00	0.42	0.52	0.05	1.00	1.00	1.00	
Incremental Delay, d2	0.6	0.3	0.1	15.8	0.5	0.1	0.5	0.5	0.2	1.0	0.5	0.2	
Delay (s)	52.4	51.6	54.4	70.9	50.4	48.1	3.9	7.1	0.7	9.4	13.0	9.1	
Level of Service	D	D	D	E	D	D	A	A	A	A	B	A	
Approach Delay (s/veh)		52.9			60.5			6.5			12.6		
Approach LOS		D			E			A			B		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			15.5		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.56										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)						18.0		
Intersection Capacity Utilization			84.5%		ICU Level of Service						E		
Analysis Period (min)			15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

Existing AM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	77	253	0	11	523	21	1	0	2	36	3	176
Future Volume (Veh/h)	77	253	0	11	523	21	1	0	2	36	3	176
Sign Control		Free			Free			Stop			Stop	
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)	86	281	0	12	581	23	1	0	2	40	3	196
Pedestrians												1
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.84						0.84	0.84		0.84	0.84	0.84
vC, conflicting volume	605			281			1256	1082	281	1073	1071	594
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	430			281			1208	1000	281	989	987	417
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	91			99			99	100	100	77	98	63
cM capacity (veh/h)	944			1293			78	183	763	171	188	532
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	86	281	12	604	3	40	199					
Volume Left	86	0	12	0	1	40	0					
Volume Right	0	0	0	23	2	0	196					
cSH	944	1700	1293	1700	194	171	517					
Volume to Capacity	0.09	0.17	0.01	0.36	0.02	0.23	0.38					
Queue Length 95th (m)	2.4	0.0	0.2	0.0	0.4	7.0	14.3					
Control Delay (s/veh)	9.2	0.0	7.8	0.0	23.9	32.4	16.2					
Lane LOS	A		A		C	D	C					
Approach Delay (s/veh)	2.2		0.2		23.9	18.9						
Approach LOS					C	C						
Intersection Summary												
Average Delay			4.5									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

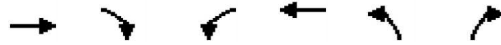
Existing AM
 04/17/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑	↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	1796	1839	2	
Future Volume (Veh/h)	0	0	0	1796	1839	2	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Hourly flow rate (vph)	0	0	0	1931	1977	2	
Pedestrians	1						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.89	0.83	0.83				
vC, conflicting volume	2622	660	1980				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1113	0	1473				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	180	903	378				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	644	644	644	659	659	659	2
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	2
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.38	0.38	0.38	0.39	0.39	0.39	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	38.9%			ICU Level of Service			A
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd












Existing AM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	159	1	4	248	0	4
Future Volume (Veh/h)	159	1	4	248	0	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	187	1	5	292	0	5
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)					119	
pX, platoon unblocked						
vC, conflicting volume			191		347	97
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			191		347	97
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1391		620	944
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	125	63	102	195	5	
Volume Left	0	0	5	0	0	
Volume Right	0	1	0	0	5	
cSH	1700	1700	1391	1700	944	
Volume to Capacity	0.07	0.04	0.00	0.11	0.01	
Queue Length 95th (m)	0.0	0.0	0.1	0.0	0.1	
Control Delay (s/veh)	0.0	0.0	0.4	0.0	8.8	
Lane LOS			A			A
Approach Delay (s/veh)	0.0	0.1				8.8
Approach LOS					A	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			19.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

Existing AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	1	1	105	5	0	222
Future Volume (Veh/h)	1	1	105	5	0	222
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	1	1	125	6	0	264
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	288					
pX, platoon unblocked						
vC, conflicting volume	262	68			133	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	262	68			133	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	709	987			1447	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	2	83	48	88	176	
Volume Left	1	0	0	0	0	
Volume Right	1	0	6	0	0	
cSH	825	1700	1700	1447	1700	
Volume to Capacity	0.00	0.05	0.03	0.00	0.10	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.4	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s/veh)	9.4	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			16.1%	ICU Level of Service	A	
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

Existing PM
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	598	253	107	21	329	1478	54	307	1422
Future Volume (vph)	598	253	107	21	329	1478	54	307	1422
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	46.0	46.0	46.0	25.0	22.0	47.0	47.0	22.0	47.0
Total Split (%)	32.9%	32.9%	32.9%	17.9%	15.7%	33.6%	33.6%	15.7%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	38.0	38.0	38.0	10.0	38.0	47.5	47.5	78.8	47.5
Actuated g/C Ratio	0.27	0.27	0.27	0.07	0.27	0.34	0.34	0.56	0.34
v/c Ratio	0.96	0.92	0.22	0.17	0.69	0.87	0.09	0.76	0.84
Control Delay (s/veh)	82.8	75.8	8.5	64.8	41.3	50.8	0.3	49.3	59.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.8	75.8	8.5	64.8	41.3	50.8	0.3	49.3	59.2
LOS	F	E	A	E	D	D	A	D	E
Approach Delay (s/veh)		71.3				49.0			57.4
Approach LOS		E				D			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay (s/veh): 56.4
 Intersection LOS: E
 Intersection Capacity Utilization 90.1%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

Existing PM
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	427	441	109	21	336	1508	55	313	1451
v/c Ratio	0.96	0.92	0.22	0.17	0.69	0.87	0.09	0.76	0.84
Control Delay (s/veh)	82.8	75.8	8.5	64.8	41.3	50.8	0.3	49.3	59.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.8	75.8	8.5	64.8	41.3	50.8	0.3	49.3	59.2
Queue Length 50th (m)	128.1	130.8	0.9	5.9	63.3	~170.8	0.0	76.4	150.7
Queue Length 95th (m)	#197.1	#196.9	15.7	15.1	98.1	#202.1	0.0	#118.1	#194.9
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	489	506	218	484	1727	600	414	1727
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.93	0.90	0.22	0.10	0.69	0.87	0.09	0.76	0.84

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

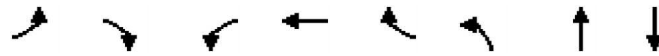
Existing PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑			
Traffic Volume (vph)	598	253	107	21	0	329	0	1478	54	307	1422	0		
Future Volume (vph)	598	253	107	21	0	329	0	1478	54	307	1422	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7		
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5			
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91			
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00			
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00			
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00			
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00			
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1558	1785	5092			
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.09	1.00			
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1558	168	5092			
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98		
Adj. Flow (vph)	610	258	109	21	0	336	0	1508	55	313	1451	0		
RTOR Reduction (vph)	0	0	77	0	0	62	0	0	37	0	0	0		
Lane Group Flow (vph)	427	441	33	21	0	274	0	1508	18	313	1451	0		
Confl. Peds. (#/hr)			1	1			10		2	2		10		
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%		
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA			
Protected Phases		3		4		1		2		1	2			
Permitted Phases	3		3			4			2	2				
Actuated Green, G (s)	38.0	38.0	38.0	6.0		33.8		44.7	44.7	72.5	44.7			
Effective Green, g (s)	38.0	38.0	38.0	6.0		33.8		44.7	44.7	72.5	44.7			
Actuated g/C Ratio	0.27	0.27	0.27	0.04		0.24		0.32	0.32	0.52	0.32			
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	446	476	419	72		378		1625	497	408	1625			
v/s Ratio Prot				0.01		c0.14		c0.30		c0.15	0.28			
v/s Ratio Perm	c0.26	0.25	0.02			0.03			0.01	0.24				
v/c Ratio	0.96	0.93	0.08	0.29		0.72		0.93	0.04	0.77	0.89			
Uniform Delay, d1	50.2	49.6	38.0	64.9		48.8		46.1	32.8	38.5	45.4			
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.11	1.26			
Incremental Delay, d2	31.5	24.1	0.1	2.2		6.7		10.7	0.1	7.0	6.7			
Delay (s)	81.7	73.7	38.0	67.2		55.6		56.8	32.9	49.7	64.0			
Level of Service	F	E	D	E		E		E	C	D	E			
Approach Delay (s/veh)		73.2			56.2			56.0			61.5			
Approach LOS		E			E			E			E			
Intersection Summary														
HCM 2000 Control Delay (s/veh)			61.7									HCM 2000 Level of Service	E	
HCM 2000 Volume to Capacity ratio			0.89											
Actuated Cycle Length (s)			140.0								23.5			
Intersection Capacity Utilization			90.1%										ICU Level of Service	E
Analysis Period (min)			15											
c Critical Lane Group														

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

Existing PM
04/17/2026

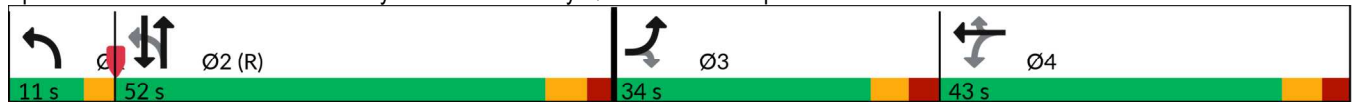


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	122	262	356	62	344	78	1895	1616
Future Volume (vph)	122	262	356	62	344	78	1895	1616
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	11.0	52.0	52.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	7.9%	37.1%	37.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	17.6	17.6	25.2	25.2	25.2	77.3	65.0	65.0
Actuated g/C Ratio	0.13	0.13	0.18	0.18	0.18	0.55	0.46	0.46
v/c Ratio	0.60	0.82	0.77	0.75	0.75	0.49	0.84	0.58
Control Delay (s/veh)	68.0	42.8	71.2	69.0	24.7	32.5	27.7	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.0	42.8	71.2	69.0	24.7	32.5	27.7	25.4
LOS	E	D	E	E	C	C	C	C
Approach Delay (s/veh)				49.6			27.8	25.4
Approach LOS				D			C	C

Intersection Summary

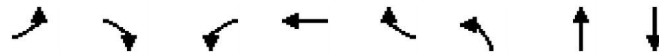
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.84
 Intersection Signal Delay (s/veh): 32.3 Intersection LOS: C
 Intersection Capacity Utilization 85.0% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

Existing PM
04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	130	279	220	225	366	83	2016	1746
v/c Ratio	0.60	0.82	0.77	0.75	0.75	0.49	0.84	0.58
Control Delay (s/veh)	68.0	42.8	71.2	69.0	24.7	32.5	27.7	25.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	68.0	42.8	71.2	69.0	24.7	32.5	27.7	25.4
Queue Length 50th (m)	36.6	34.4	64.8	66.0	27.8	6.5	142.7	81.6
Queue Length 95th (m)	54.7	63.8	89.7	90.5	62.3	m10.3	#296.1	101.6
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	334	438	411	431	585	177	2388	3004
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.39	0.64	0.54	0.52	0.63	0.47	0.84	0.58

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

Existing PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↖	↖	↖	↖	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	122	0	262	356	62	344	78	1895	0	0	1616	25
Future Volume (vph)	122	0	262	356	62	344	78	1895	0	0	1616	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1514	1767	5142			6463	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.07	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1514	136	5142			6463	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	130	0	279	379	66	366	83	2016	0	0	1719	27
RTOR Reduction (vph)	0	0	142	0	0	216	0	0	0	0	1	0
Lane Group Flow (vph)	130	0	137	220	225	150	83	2016	0	0	1745	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	17.6		17.6	25.2	25.2	25.2	73.2	65.0			65.0	
Effective Green, g (s)	17.6		17.6	25.2	25.2	25.2	73.2	65.0			65.0	
Actuated g/C Ratio	0.13		0.13	0.18	0.18	0.18	0.52	0.46			0.46	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	217		200	288	301	272	166	2387			3000	
v/s Ratio Prot	0.08						c0.03	c0.39			0.27	
v/s Ratio Perm			c0.09	c0.14	0.13	0.10	0.23					
v/c Ratio	0.60		0.69	0.76	0.75	0.55	0.50	0.84			0.58	
Uniform Delay, d1	57.9		58.6	54.6	54.4	52.2	19.7	33.0			27.5	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.50	0.71			0.82	
Incremental Delay, d2	4.4		9.4	11.4	9.7	2.3	1.1	1.9			0.8	
Delay (s)	62.3		68.0	66.0	64.1	54.5	30.8	25.3			23.4	
Level of Service	E		E	E	E	D	C	C			C	
Approach Delay (s/veh)		66.2			60.3			25.5			23.4	
Approach LOS		E			E			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			33.6									C
HCM 2000 Volume to Capacity ratio			0.78									
Actuated Cycle Length (s)			140.0							24.0		
Intersection Capacity Utilization			85.0%									E
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

Existing PM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	151	62	135	53	62	127	1931	205	75	1102	67
Future Volume (vph)	120	151	62	135	53	62	127	1931	205	75	1102	67
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	22.9	22.9	22.9	22.9	22.9	22.9	103.5	91.0	91.0	102.2	90.4	90.4
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.16	0.74	0.65	0.65	0.73	0.65	0.65
v/c Ratio	0.61	0.52	0.22	0.86	0.18	0.22	0.36	0.61	0.22	0.43	0.35	0.07
Control Delay (s/veh)	67.6	60.1	12.9	95.8	48.9	11.5	5.7	6.6	0.6	16.3	12.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.6	60.1	12.9	95.8	48.9	11.5	5.7	6.6	0.6	16.3	12.6	3.0
LOS	E	E	B	F	D	B	A	A	A	B	B	A
Approach Delay (s/veh)		54.0			65.0			6.0			12.3	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay (s/veh): 15.4 Intersection LOS: B
 Intersection Capacity Utilization 100.7% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

Existing PM
04/17/2026



























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	126	159	65	142	56	65	134	2033	216	79	1160	71
v/c Ratio	0.61	0.52	0.22	0.86	0.18	0.22	0.36	0.61	0.22	0.43	0.35	0.07
Control Delay (s/veh)	67.6	60.1	12.9	95.8	48.9	11.5	5.7	6.6	0.6	16.3	12.6	3.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.6	60.1	12.9	95.8	48.9	11.5	5.7	6.6	0.6	16.3	12.6	3.0
Queue Length 50th (m)	35.3	43.5	0.5	40.7	14.2	0.0	2.4	25.3	0.2	5.2	52.8	0.0
Queue Length 95th (m)	53.6	62.9	m13.4	62.3	25.3	12.7	m4.6	25.6	m0.4	17.2	79.1	7.2
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	368	543	478	295	559	478	388	3343	991	210	3319	998
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.29	0.14	0.48	0.10	0.14	0.35	0.61	0.22	0.38	0.35	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















Existing PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	151	62	135	53	62	127	1931	205	75	1102	67
Future Volume (vph)	120	151	62	135	53	62	127	1931	205	75	1102	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1667	1865	1484	1704	1921	1484	1749	5142	1465	1785	5142	1508
Fl _t Permitted	0.72	1.00	1.00	0.57	1.00	1.00	0.21	1.00	1.00	0.06	1.00	1.00
Satd. Flow (perm)	1264	1865	1484	1015	1921	1484	384	5142	1465	120	5142	1508
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	159	65	142	56	65	134	2033	216	79	1160	71
RTOR Reduction (vph)	0	0	54	0	0	54	0	0	38	0	0	25
Lane Group Flow (vph)	126	159	11	142	56	11	134	2033	178	79	1160	46
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	22.9	22.9	22.9	22.9	22.9	22.9	99.8	91.1	91.1	98.4	90.4	90.4
Effective Green, g (s)	22.9	22.9	22.9	22.9	22.9	22.9	99.8	91.1	91.1	98.4	90.4	90.4
Actuated g/C Ratio	0.16	0.16	0.16	0.16	0.16	0.16	0.71	0.65	0.65	0.70	0.65	0.65
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	206	305	242	166	314	242	358	3345	953	179	3320	973
v/s Ratio Prot		0.09			0.03		c0.02	c0.40		c0.03	0.23	
v/s Ratio Perm	0.10		0.01	c0.14		0.01	0.24		0.12	0.28		0.03
v/c Ratio	0.61	0.52	0.04	0.86	0.18	0.04	0.37	0.61	0.19	0.44	0.35	0.05
Uniform Delay, d ₁	54.4	53.5	49.3	56.9	50.4	49.3	6.7	14.1	9.7	11.3	11.3	9.1
Progression Factor	1.04	1.04	1.13	1.00	1.00	1.00	0.74	0.39	0.05	1.00	1.00	1.00
Incremental Delay, d ₂	5.3	1.6	0.1	32.5	0.3	0.1	0.4	0.5	0.3	1.7	0.3	0.1
Delay (s)	61.7	57.1	56.0	89.5	50.7	49.4	5.3	6.0	0.7	13.0	11.6	9.2
Level of Service	E	E	E	F	D	D	A	A	A	B	B	A
Approach Delay (s/veh)		58.5			71.3			5.5			11.6	
Approach LOS		E			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			15.7									B
HCM 2000 Volume to Capacity ratio			0.64									
Actuated Cycle Length (s)			140.0								18.0	
Intersection Capacity Utilization			100.7%									G
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

Existing PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	311	499	4	6	176	74	1	6	5	28	1	58
Future Volume (Veh/h)	311	499	4	6	176	74	1	6	5	28	1	58
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	321	514	4	6	181	76	1	6	5	29	1	60
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.99						0.99	0.99		0.99	0.99	0.99
vC, conflicting volume	259			518			1412	1429	516	1397	1393	221
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	252			518			1411	1429	516	1396	1392	213
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	75			99			99	94	99	68	99	93
cM capacity (veh/h)	1298			1058			86	101	563	91	106	820
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	321	518	6	257	12	29	61					
Volume Left	321	0	6	0	1	29	0					
Volume Right	0	4	0	76	5	0	60					
cSH	1298	1700	1058	1700	150	91	739					
Volume to Capacity	0.25	0.30	0.01	0.15	0.08	0.32	0.08					
Queue Length 95th (m)	7.8	0.0	0.1	0.0	2.1	9.7	2.2					
Control Delay (s/veh)	8.7	0.0	8.4	0.0	31.0	62.4	10.3					
Lane LOS	A		A		D	F	B					
Approach Delay (s/veh)	3.3		0.2		31.0	27.1						
Approach LOS					D	D						
Intersection Summary												
Average Delay			4.7									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

Existing PM
 04/17/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑↑	↑↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	2335	1322	14	
Future Volume (Veh/h)	0	0	0	2335	1322	14	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	0	0	0	2458	1392	15	
Pedestrians	7						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.70	0.90	0.90				
vC, conflicting volume	2218	471	1414				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	285	21	1070				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	479	945	582				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	819	819	819	464	464	464	15
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	15
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.48	0.48	0.48	0.27	0.27	0.27	0.01
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	48.4%			ICU Level of Service		A	
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd

Existing PM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	286	16	38	186	10	42
Future Volume (Veh/h)	286	16	38	186	10	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	336	19	45	219	12	49
Pedestrians					8	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			363		553	186
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			363		553	186
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			96		97	94
cM capacity (veh/h)			1199		447	826
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	224	131	118	146	61	
Volume Left	0	0	45	0	12	
Volume Right	0	19	0	0	49	
cSH	1700	1700	1199	1700	708	
Volume to Capacity	0.13	0.08	0.04	0.09	0.09	
Queue Length 95th (m)	0.0	0.0	0.9	0.0	2.3	
Control Delay (s/veh)	0.0	0.0	3.3	0.0	10.6	
Lane LOS	A			B		
Approach Delay (s/veh)	0.0		1.5		10.6	
Approach LOS						B
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			29.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

Existing PM
 04/17/2026



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	11	365	13	7	84
Future Volume (Veh/h)	4	11	365	13	7	84
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	5	13	420	15	8	97
Pedestrians	2		1		1	
Lane Width (m)	3.6		3.6		3.6	
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)	287					
pX, platoon unblocked						
vC, conflicting volume	495	221			437	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	495	221			437	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			99	
cM capacity (veh/h)	504	788			1132	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	18	280	155	40	65	
Volume Left	5	0	0	8	0	
Volume Right	13	0	15	0	0	
cSH	681	1700	1700	1132	1700	
Volume to Capacity	0.03	0.16	0.09	0.01	0.04	
Queue Length 95th (m)	0.7	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	10.4	0.0	0.0	1.7	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	10.4	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			21.0%		ICU Level of Service	A
Analysis Period (min)			15			

APPENDIX

E Background Growth Details



Date: January 30, 2023
From: Xinwei Dong, WSP
Re: Growth Rates Data Request – Erin Mills Parkway at Sheridan Park Dr

Xinwei,
Here are the estimated CAGR values for Erin Mills Pkwy north of Queen Elizabeth Way:

2016 – 2021	2021 - 2031
0.5%	0.5%

These growth rates are estimated based on multiple sources including Peel Travel Demand forecasting model, ATR and land use/forecasts data. Please note that this area may be further affected by future growth (after 2031 and beyond). Please use your professional judgement when using these values.

If you require further assistance, please contact me at yiyang.hu@peelregion.ca.

Regards,

Aaron Hu
Transportation Analyst, Transportation System Planning
Transportation Division, Public Works Services, Region of Peel
10 Peel Centre Drive, Suite B, 4th Floor
Brampton, ON L6T 4B9
E: yiyang.hu@peelregion.ca

RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

From Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Date Fri 3/27/2026 10:52 AM

To Azari, Kian <Kian.Azari@wsp.com>

Cc Lukezic, David <David.Lukezic@wsp.com>

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi Kian,

Below are the recommended growth rates to be used along North Sheridan Way, South Sheridan Way, and Leanne Boulevard. These rates are compounded annually from existing to 2031 and 2031 to 2041.

North Sheridan Way

Compounded Annual Growth from Existing to 2031		
	EB	WB
AM Peak	1.5%	1.5%
PM Peak	1.5%	1.5%

Compounded Annual Growth from 2031 to 2041		
	EB	WB
AM Peak	1.5%	1.5%
PM Peak	1.0%	1.0%

South Sheridan Way

Compounded Annual Growth from Existing to 2031		
--	--	--

	EB	WB
AM Peak	1.5%	1.5%
PM Peak	1.5%	1.5%

Compounded Annual Growth from 2031 to 2041		
	EB	WB
AM Peak	1.5%	1.5%
PM Peak	0.5%	0.5%

Leanne Boulevard

Compounded Annual Growth from Existing to 2031		
	NB	SB
AM Peak	1.5%	1.5%
PM Peak	0.5%	0.5%

Compounded Annual Growth from 2031 to 2041		
	NB	SB
AM Peak	0.5%	0.5%
PM Peak	0.5%	0.5%

Regards,



Tyler Xuereb

Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

From: Azari, Kian <Kian.Azari@wsp.com>
Sent: Tuesday, March 17, 2026 2:20 PM

To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Subject: [EXTERNAL] RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi Tyler,

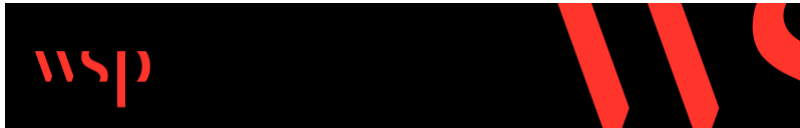
Our planned horizon years for the study are 2031, 2036, and 2041.

Regards,

Kian Azari, P.Eng.,
Transportation Engineer

Transportation Planning and Science

T + 1 289-982-4029



150 Commerce Valley Drive West,
Thornhill, Ontario
L3T 7T3 Canada

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Sent: Tuesday, March 17, 2026 2:09 PM

To: Azari, Kian <Kian.Azari@wsp.com>

Subject: RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

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Hi Kian,

Growth rates do not typically get provided until the submission has been reviewed and approved. I can work on the rates but unfortunately will not be able to provide them until everything has been approved.

Could you please provide me with your horizon year.

Regards,

Tyler Xuereb

Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

From: Azari, Kian <Kian.Azari@wsp.com>

Sent: Tuesday, March 17, 2026 2:05 PM

To: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>; William Wright <William.Wright@mississauga.ca>

Cc: Lukezic, David <David.Lukezic@wsp.com>

Subject: [EXTERNAL] RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi Tyler,

Thanks for your email.

We have not submitted the TIS yet. We are currently in the initial stages of data collection and background review, and we wanted to confirm the applicable growth rates and any planned improvements before proceeding with the analysis.

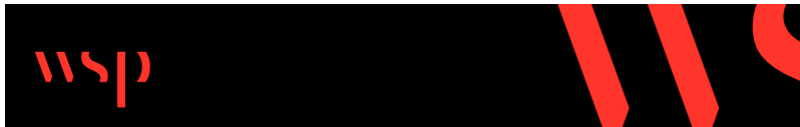
Let me know if you need any additional details.

Regards,

Kian Azari, P.Eng.,
Transportation Engineer

Transportation Planning and Science

T + 1 289-982-4029



150 Commerce Valley Drive West,
Thornhill, Ontario
L3T 7T3 Canada

From: Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Sent: Tuesday, March 17, 2026 2:02 PM

To: Azari, Kian <Kian.Azari@wsp.com>; William Wright <William.Wright@mississauga.ca>

Cc: Lukezic, David <David.Lukezic@wsp.com>

Subject: RE: Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi Kian,

Thank you for your email.

Can you please confirm if you have submitted your TIS to the city for review and if so, have you received comments back?

Thanks,



Tyler Xuereb

Transportation Planning Analyst
T 905-615-3200 ext.4783
Tyler.xuereb@mississauga.ca

[City of Mississauga](#) | Transportation and Works Department,
Infrastructure Planning and Engineering Services Division

From: Azari, Kian <Kian.Azari@wsp.com>

Sent: Tuesday, March 17, 2026 1:58 PM

To: William Wright <William.Wright@mississauga.ca>; Tyler Xuereb <Tyler.Xuereb@mississauga.ca>

Cc: Lukezic, David <David.Lukezic@wsp.com>

Subject: [EXTERNAL] Request for Growth Rates and Planned Improvements – 2155 Leanne Boulevard TIS

[CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.]

Hi William and Tyler,

I hope you are doing well.

WSP is preparing the Traffic Impact Study for the proposed development at 2155 Leanne Boulevard. As part of establishing background traffic conditions, we are seeking the City's direction on the following items:

Growth Rates: Please confirm the appropriate growth rates to be applied along the following corridors:

- Leanne Boulevard
- North Sheridan Way
- South Sheridan Way

Alternatively, if available, please provide AADT for multiple years or historical traffic count data so we can determine corridor-specific growth rates.

Planned Roadway / Intersection Improvements: We are planning to assess future conditions for 2031, 2036, and 2041. If applicable, please provide a list of planned or programmed roadway or intersection improvements within the study area for these horizon years.

Thank you in advance, and please let me know if any additional information is needed.

Regards,

Kian Azari, P.Eng.,
Transportation Engineer

Transportation Planning and Science

T + 1 289-982-4029



150 Commerce Valley Drive West,
Thornhill, Ontario
L3T 7T3 Canada

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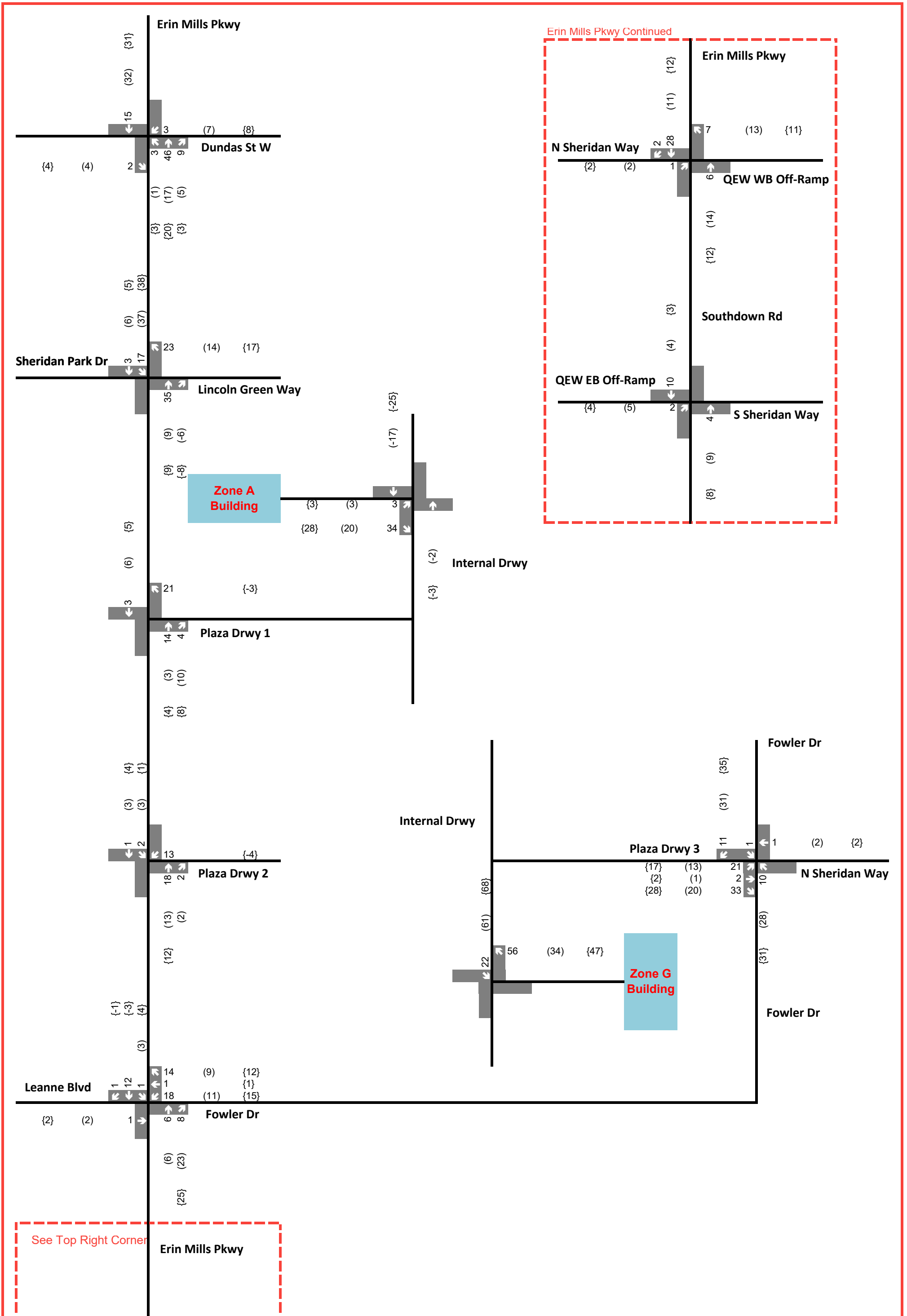
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APPENDIX

F Background Development Information



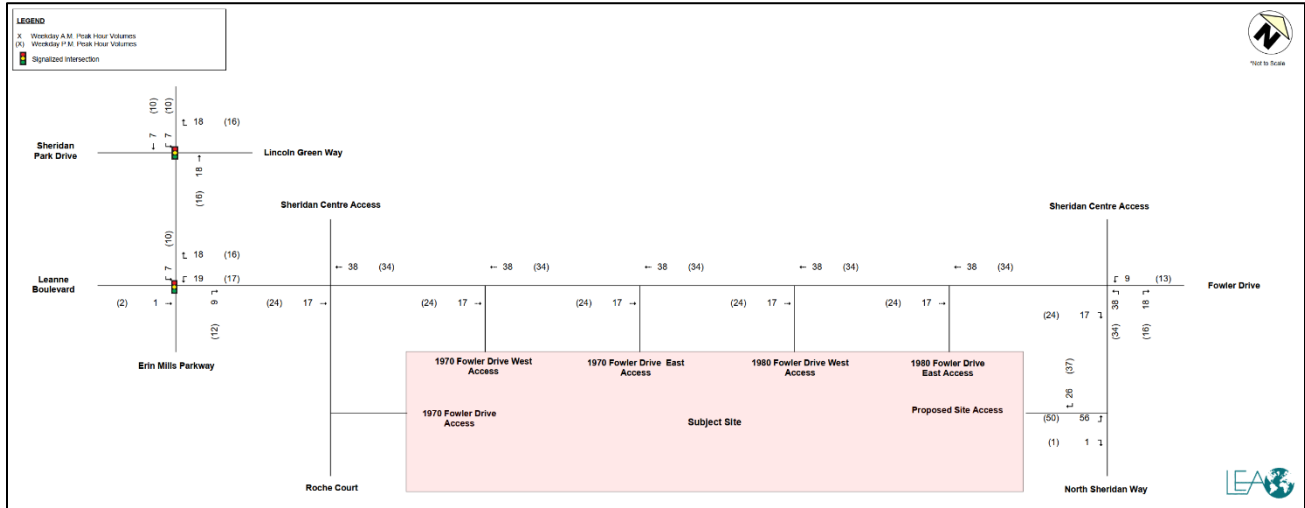


xx A.M. Peak Hour Traffic Volumes
 (xx) P.M. Peak Hour Traffic Volumes
 {xx} Weekend Peak Hour Traffic Volumes

Legend

Figure 1
Net Site Traffic Assignment - Base Scenario

Figure 4-1: Site-Generated Peak Hour Traffic Volumes



APPENDIX

G Future Background Synchro Reports



Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2031 AM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	318	95	126	32	349	1310	8	182	1413
Future Volume (vph)	318	95	126	32	349	1310	8	182	1413
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	23.0	13.0	55.0	55.0	13.0	55.0
Total Split (%)	35.0%	35.0%	35.0%	16.4%	9.3%	39.3%	39.3%	9.3%	39.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.7	23.7	23.7	10.3	32.6	67.2	67.2	92.8	67.2
Actuated g/C Ratio	0.17	0.17	0.17	0.07	0.23	0.48	0.48	0.66	0.48
v/c Ratio	0.77	0.75	0.36	0.28	0.82	0.60	0.01	0.52	0.64
Control Delay (s/veh)	72.1	70.2	9.7	67.3	49.1	30.3	0.0	42.0	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.1	70.2	9.7	67.3	49.1	30.3	0.0	42.0	16.2
LOS	E	E	A	E	D	C	A	D	B
Approach Delay (s/veh)		56.8				30.2			19.1
Approach LOS		E				C			B

Intersection Summary
 Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 14 (10%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 31.4
 Intersection LOS: C
 Intersection Capacity Utilization 73.3%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues

FB_2031 AM

1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	219	225	135	34	375	1409	9	196	1519
v/c Ratio	0.77	0.75	0.36	0.28	0.82	0.60	0.01	0.52	0.64
Control Delay (s/veh)	72.1	70.2	9.7	67.3	49.1	30.3	0.0	42.0	16.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.1	70.2	9.7	67.3	49.1	30.3	0.0	42.0	16.2
Queue Length 50th (m)	64.9	66.5	0.0	9.6	71.8	113.1	0.0	23.8	108.2
Queue Length 95th (m)	89.6	91.1	17.6	21.4	104.9	157.9	0.0	m54.2	186.2
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	532	564	190	456	2354	789	380	2376
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.42	0.24	0.18	0.82	0.60	0.01	0.52	0.64

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2031 AM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	318	95	126	32	0	349	0	1310	8	182	1413	0
Future Volume (vph)	318	95	126	32	0	349	0	1310	8	182	1413	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1776	1566	1668		1581		4902	1526	1750	4948	
Flt Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.11	1.00	
Satd. Flow (perm)	1696	1776	1566	1668		1581		4902	1526	207	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	342	102	135	34	0	375	0	1409	9	196	1519	0
RTOR Reduction (vph)	0	0	112	0	0	92	0	0	5	0	0	0
Lane Group Flow (vph)	219	225	23	34	0	283	0	1409	4	196	1519	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	23.7	23.7	23.7	6.3		28.4		64.4	64.4	86.5	64.4	
Effective Green, g (s)	23.7	23.7	23.7	6.3		28.4		64.4	64.4	86.5	64.4	
Actuated g/C Ratio	0.17	0.17	0.17	0.05		0.20		0.46	0.46	0.62	0.46	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	287	300	265	75		320		2254	701	371	2276	
v/s Ratio Prot				0.02		c0.14		0.29		0.08	c0.31	
v/s Ratio Perm	c0.13	0.13	0.01			0.04			0.00	0.24		
v/c Ratio	0.76	0.75	0.09	0.45		0.88		0.63	0.01	0.53	0.67	
Uniform Delay, d1	55.5	55.3	49.0	65.2		54.2		28.7	20.5	16.6	29.5	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	2.38	0.50	
Incremental Delay, d2	11.4	10.1	0.1	4.3		23.7		1.3	0.0	0.9	1.1	
Delay (s)	66.9	65.4	49.2	69.5		77.8		30.0	20.5	40.4	15.9	
Level of Service	E	E	D	E		E		C	C	D	B	
Approach Delay (s/veh)		62.2			77.1			29.9			18.7	
Approach LOS		E			E			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			34.5									C
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			73.3%									D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2031 AM
 04/17/2026

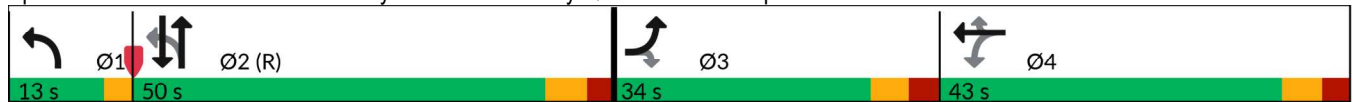


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	26	117	356	263	342	111	1301	1791
Future Volume (vph)	26	117	356	263	342	111	1301	1791
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.0	9.0	36.9	36.9	36.9	74.1	59.7	59.7
Actuated g/C Ratio	0.06	0.06	0.26	0.26	0.26	0.53	0.43	0.43
v/c Ratio	0.25	0.57	0.82	0.74	0.55	0.64	0.64	0.74
Control Delay (s/veh)	66.9	20.8	64.2	56.6	6.7	44.9	43.6	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.9	20.8	64.2	56.6	6.7	44.9	43.6	37.1
LOS	E	C	E	E	A	D	D	D
Approach Delay (s/veh)				41.2			43.7	37.1
Approach LOS				D			D	D

Intersection Summary

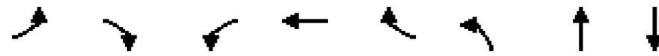
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 39.9
 Intersection LOS: D
 Intersection Capacity Utilization 72.6%
 ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2031 AM
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	28	124	322	337	364	118	1384	1984
v/c Ratio	0.25	0.57	0.82	0.74	0.55	0.64	0.64	0.74
Control Delay (s/veh)	66.9	20.8	64.2	56.6	6.7	44.9	43.6	37.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.9	20.8	64.2	56.6	6.7	44.9	43.6	37.1
Queue Length 50th (m)	8.0	0.0	92.4	94.4	0.0	23.5	122.0	96.6
Queue Length 95th (m)	18.3	20.1	120.5	120.4	23.2	m46.9	171.2	#196.0
Internal Link Dist (m)				362.3			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	402	424	489	681	196	2151	2693
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.31	0.76	0.69	0.53	0.60	0.64	0.74

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2031 AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	26	0	117	356	263	342	111	1301	0	0	1791	74
Future Volume (vph)	26	0	117	356	263	342	111	1301	0	0	1791	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1785		1566	1501	1729	1486	1750	5043			6307	
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.07	1.00			1.00	
Satd. Flow (perm)	1785		1566	1501	1729	1486	123	5043			6307	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	28	0	124	379	280	364	118	1384	0	0	1905	79
RTOR Reduction (vph)	0	0	116	0	0	268	0	0	0	0	3	0
Lane Group Flow (vph)	28	0	8	322	337	96	118	1384	0	0	1981	0
Confl. Peds. (#/hr)	2					2	19		11	11		19
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	9.0		9.0	36.9	36.9	36.9	70.1	59.7			59.7	
Effective Green, g (s)	9.0		9.0	36.9	36.9	36.9	70.1	59.7			59.7	
Actuated g/C Ratio	0.06		0.06	0.26	0.26	0.26	0.50	0.43			0.43	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	114		100	395	455	391	182	2150			2689	
v/s Ratio Prot	c0.02						c0.05	0.27			c0.31	
v/s Ratio Perm			0.01	c0.21	0.19	0.06	0.27					
v/c Ratio	0.25		0.08	0.82	0.74	0.25	0.65	0.64			0.74	
Uniform Delay, d1	62.3		61.6	48.4	47.2	40.6	25.0	31.7			33.6	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.29	1.26			1.01	
Incremental Delay, d2	1.1		0.3	12.2	6.4	0.3	6.2	1.2			1.6	
Delay (s)	63.4		61.9	60.6	53.6	40.9	38.4	41.1			35.6	
Level of Service	E		E	E	D	D	D	D			D	
Approach Delay (s/veh)		62.2			51.3			40.9			35.6	
Approach LOS		E			D			D			D	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	41.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

FB_2031 AM
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	62	69	209	86	112	43	1678	142	65	1630	120
Future Volume (vph)	47	62	69	209	86	112	43	1678	142	65	1630	120
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	96.8	87.2	87.2	98.0	87.7	87.7
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.69	0.62	0.62	0.70	0.63	0.63
v/c Ratio	0.20	0.17	0.20	0.81	0.25	0.30	0.22	0.55	0.17	0.35	0.54	0.13
Control Delay (s/veh)	46.5	45.6	10.5	74.7	45.9	8.5	7.2	9.9	0.7	12.6	17.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.5	45.6	10.5	74.7	45.9	8.5	7.2	9.9	0.7	12.6	17.0	5.2
LOS	D	D	B	E	D	A	A	A	A	B	B	A
Approach Delay (s/veh)		32.2			50.4			9.2			16.1	
Approach LOS		C			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 17.0 Intersection LOS: B
 Intersection Capacity Utilization 85.9% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	49	65	72	218	90	117	45	1748	148	68	1698	125
v/c Ratio	0.20	0.17	0.20	0.81	0.25	0.30	0.22	0.55	0.17	0.35	0.54	0.13
Control Delay (s/veh)	46.5	45.6	10.5	74.7	45.9	8.5	7.2	9.9	0.7	12.6	17.0	5.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.5	45.6	10.5	74.7	45.9	8.5	7.2	9.9	0.7	12.6	17.0	5.2
Queue Length 50th (m)	12.0	15.6	0.3	61.2	22.2	0.0	1.0	149.8	0.0	5.4	100.1	3.9
Queue Length 95th (m)	m21.7	m26.3	m12.1	84.5	35.0	15.2	m2.2	196.8	0.0	13.2	140.5	15.3
Internal Link Dist (m)		94.8			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	340	528	482	378	504	509	239	3170	856	217	3160	988
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.12	0.15	0.58	0.18	0.23	0.19	0.55	0.17	0.31	0.54	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















FB_2031 AM
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	62	69	209	86	112	43	1678	142	65	1630	120
Future Volume (vph)	47	62	69	209	86	112	43	1678	142	65	1630	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1586	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524
Fl _t Permitted	0.70	1.00	1.00	0.71	1.00	1.00	0.10	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1166	1812	1481	1297	1731	1463	182	5092	1322	157	5043	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	49	65	72	218	90	117	45	1748	148	68	1698	125
RTOR Reduction (vph)	0	0	57	0	0	93	0	0	34	0	0	34
Lane Group Flow (vph)	49	65	15	218	90	24	45	1748	114	68	1698	91
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.5	86.6	86.6	93.5	87.1	87.1
Effective Green, g (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.5	86.6	86.6	93.5	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.62	0.62	0.67	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	241	375	306	268	358	303	185	3149	817	172	3137	948
v/s Ratio Prot		0.04			0.05		0.01	c0.34		c0.02	0.34	
v/s Ratio Perm	0.04		0.01	c0.17		0.02	0.15		0.09	0.24		0.06
v/c Ratio	0.20	0.17	0.05	0.81	0.25	0.08	0.24	0.56	0.14	0.40	0.54	0.10
Uniform Delay, d ₁	45.9	45.6	44.5	52.9	46.4	44.7	10.1	15.5	11.2	10.9	15.1	10.6
Progression Factor	1.04	1.04	1.10	1.00	1.00	1.00	0.66	0.55	0.05	1.00	1.00	1.00
Incremental Delay, d ₂	0.4	0.2	0.1	17.0	0.4	0.1	0.6	0.6	0.3	1.5	0.7	0.2
Delay (s)	48.0	47.5	49.2	69.9	46.8	44.9	7.3	9.1	0.8	12.4	15.7	10.8
Level of Service	D	D	D	E	D	D	A	A	A	B	B	B
Approach Delay (s/veh)		48.3			58.1			8.5			15.3	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.8									B
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			140.0								18.0	
Intersection Capacity Utilization			85.9%									E
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FB_2031 AM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	273	0	11	566	23	1	0	2	39	3	192
Future Volume (Veh/h)	85	273	0	11	566	23	1	0	2	39	3	192
Sign Control		Free			Free			Stop			Stop	
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)	94	303	0	12	629	26	1	0	2	43	3	213
Pedestrians												1
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.82						0.82	0.82		0.82	0.82	0.82
vC, conflicting volume	656			303			1359	1171	303	1160	1158	643
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	465			303			1326	1096	303	1083	1080	449
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	89			99			98	100	100	70	98	57
cM capacity (veh/h)	893			1269			56	154	741	142	159	497
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	94	303	12	655	3	43	216					
Volume Left	94	0	12	0	1	43	0					
Volume Right	0	0	0	26	2	0	213					
cSH	893	1700	1269	1700	146	142	483					
Volume to Capacity	0.11	0.18	0.01	0.39	0.02	0.30	0.45					
Queue Length 95th (m)	2.8	0.0	0.2	0.0	0.5	9.5	18.2					
Control Delay (s/veh)	9.5	0.0	7.9	0.0	30.2	41.1	18.4					
Lane LOS	A		A		D	E	C					
Approach Delay (s/veh)	2.3		0.1		30.2	22.1						
Approach LOS					D	C						
Intersection Summary												
Average Delay			5.1									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

FB_2031 AM
 04/17/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑↑	↑↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	1864	1934	2	
Future Volume (Veh/h)	0	0	0	1864	1934	2	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Hourly flow rate (vph)	0	0	0	2004	2080	2	
Pedestrians	1						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.88	0.81	0.81				
vC, conflicting volume	2749	694	2083				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	1036	0	1507				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	200	876	355				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	668	668	668	693	693	693	2
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	2
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.39	0.39	0.39	0.41	0.41	0.41	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	40.7%			ICU Level of Service		A	
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd










FB_2031 AM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	173	1	4	269	0	4
Future Volume (Veh/h)	173	1	4	269	0	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	204	1	5	316	0	5
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)					119	
pX, platoon unblocked						
vC, conflicting volume			208		376	106
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			208		376	106
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1372		595	933
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	136	69	110	211	5	
Volume Left	0	0	5	0	0	
Volume Right	0	1	0	0	5	
cSH	1700	1700	1372	1700	933	
Volume to Capacity	0.08	0.04	0.00	0.12	0.01	
Queue Length 95th (m)	0.0	0.0	0.1	0.0	0.1	
Control Delay (s/veh)	0.0	0.0	0.4	0.0	8.9	
Lane LOS			A			A
Approach Delay (s/veh)	0.0		0.1		8.9	
Approach LOS					A	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			20.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

FB_2031 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	1	1	115	5	0	241
Future Volume (Veh/h)	1	1	115	5	0	241
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	1	1	137	6	0	287
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)	288					
pX, platoon unblocked						
vC, conflicting volume	286	74			145	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	286	74			145	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	686	978			1432	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	2	91	52	96	191	
Volume Left	1	0	0	0	0	
Volume Right	1	0	6	0	0	
cSH	806	1700	1700	1432	1700	
Volume to Capacity	0.00	0.05	0.03	0.00	0.11	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.5	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s/veh)	9.5	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			16.7%		ICU Level of Service	A
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2031 PM
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	666	279	118	23	355	1530	59	334	1476
Future Volume (vph)	666	279	118	23	355	1530	59	334	1476
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	46.0	46.0	46.0	25.0	22.0	47.0	47.0	22.0	47.0
Total Split (%)	32.9%	32.9%	32.9%	17.9%	15.7%	33.6%	33.6%	15.7%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.0	39.0	39.0	10.0	41.2	43.3	43.3	77.8	43.3
Actuated g/C Ratio	0.28	0.28	0.28	0.07	0.29	0.31	0.31	0.56	0.31
v/c Ratio	1.04	1.00	0.24	0.19	0.70	0.99	0.11	0.75	0.96
Control Delay (s/veh)	101.2	90.8	10.3	65.2	41.2	68.2	0.5	46.1	70.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	101.2	90.8	10.3	65.2	41.2	68.2	0.5	46.1	70.7
LOS	F	F	B	E	D	E	A	D	E
Approach Delay (s/veh)		86.5				65.7			66.2
Approach LOS		F				E			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.04
 Intersection Signal Delay (s/veh): 68.6 Intersection LOS: E
 Intersection Capacity Utilization 95.1% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	476	489	120	23	362	1561	60	341	1506
v/c Ratio	1.04	1.00	0.24	0.19	0.70	0.99	0.11	0.75	0.96
Control Delay (s/veh)	101.2	90.8	10.3	65.2	41.2	68.2	0.5	46.1	70.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	101.2	90.8	10.3	65.2	41.2	68.2	0.5	46.1	70.7
Queue Length 50th (m)	~157.0	150.6	3.2	6.4	71.4	~182.6	0.0	85.8	~175.2
Queue Length 95th (m)	#230.8	#230.0	19.0	16.3	108.9	#213.8	0.8	#133.3	#207.0
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	489	506	218	518	1576	557	456	1576
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.04	1.00	0.24	0.11	0.70	0.99	0.11	0.75	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

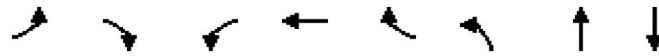
HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2031 PM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	666	279	118	23	0	355	0	1530	59	334	1476	0
Future Volume (vph)	666	279	118	23	0	355	0	1530	59	334	1476	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Fr _t	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Fl _t Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1558	1785	5092	
Fl _t Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1558	186	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	680	285	120	23	0	362	0	1561	60	341	1506	0
RTOR Reduction (vph)	0	0	76	0	0	60	0	0	43	0	0	0
Lane Group Flow (vph)	476	489	44	23	0	302	0	1561	17	341	1506	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	39.0	39.0	39.0	6.0		37.0		40.5	40.5	71.5	40.5	
Effective Green, g (s)	39.0	39.0	39.0	6.0		37.0		40.5	40.5	71.5	40.5	
Actuated g/C Ratio	0.28	0.28	0.28	0.04		0.26		0.29	0.29	0.51	0.29	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	458	489	430	72		413		1473	450	449	1473	
v/s Ratio Prot				0.01		c0.16		c0.31		c0.17	0.30	
v/s Ratio Perm	c0.29	0.28	0.03			0.03			0.01	0.22		
v/c Ratio	1.04	1.00	0.10	0.32		0.73		1.06	0.04	0.76	1.02	
Uniform Delay, d1	50.5	50.5	37.5	65.0		47.0		49.7	35.8	37.7	49.7	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.08	1.27	
Incremental Delay, d2	52.6	40.7	0.1	2.6		6.5		41.1	0.2	5.6	26.4	
Delay (s)	103.1	91.2	37.6	67.6		53.5		90.8	35.9	46.3	89.3	
Level of Service	F	F	D	E		D		F	D	D	F	
Approach Delay (s/veh)		90.5			54.3			88.8			81.4	
Approach LOS		F			D			F			F	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			83.7									F
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			95.1%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2031 PM
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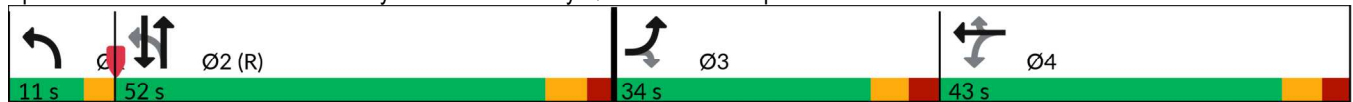


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	134	282	392	69	394	84	1967	1685
Future Volume (vph)	134	282	392	69	394	84	1967	1685
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	11.0	52.0	52.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	7.9%	37.1%	37.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	19.4	19.4	27.3	27.3	27.3	73.3	61.1	61.1
Actuated g/C Ratio	0.14	0.14	0.20	0.20	0.20	0.52	0.44	0.44
v/c Ratio	0.60	0.86	0.78	0.76	0.84	0.56	0.93	0.65
Control Delay (s/veh)	65.8	51.2	69.7	67.5	36.6	38.2	32.7	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.8	51.2	69.7	67.5	36.6	38.2	32.7	30.7
LOS	E	D	E	E	D	D	C	C
Approach Delay (s/veh)				53.9			32.9	30.7
Approach LOS				D			C	C

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.93
 Intersection Signal Delay (s/veh): 37.6
 Intersection LOS: D
 Intersection Capacity Utilization 89.1%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2031 PM
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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	143	300	242	248	419	89	2093	1822
v/c Ratio	0.60	0.86	0.78	0.76	0.84	0.56	0.93	0.65
Control Delay (s/veh)	65.8	51.2	69.7	67.5	36.6	38.2	32.7	30.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.8	51.2	69.7	67.5	36.6	38.2	32.7	30.7
Queue Length 50th (m)	39.6	44.4	71.1	72.6	50.4	10.4	219.0	88.5
Queue Length 95th (m)	59.6	76.7	97.1	98.1	88.9	m11.6m#	286.4	127.4
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	334	429	411	431	575	165	2244	2823
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.70	0.59	0.58	0.73	0.54	0.93	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2031 PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑			
Traffic Volume (vph)	134	0	282	392	69	394	84	1967	0	0	1685	27		
Future Volume (vph)	134	0	282	392	69	394	84	1967	0	0	1685	27		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7		
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0			
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86			
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00			
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00			
Fr _t	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00			
Fl _t Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00			
Satd. Flow (prot)	1733		1597	1600	1677	1514	1767	5142			6462			
Fl _t Permitted	0.95		1.00	0.95	0.97	1.00	0.07	1.00			1.00			
Satd. Flow (perm)	1733		1597	1600	1677	1514	122	5142			6462			
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Adj. Flow (vph)	143	0	300	417	73	419	89	2093	0	0	1793	29		
RTOR Reduction (vph)	0	0	129	0	0	202	0	0	0	0	1	0		
Lane Group Flow (vph)	143	0	171	242	248	217	89	2093	0	0	1821	0		
Confl. Peds. (#/hr)	12					12	5					5		
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%		
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA			
Protected Phases	3			4	4		1	2			2			
Permitted Phases			3	4		4	2							
Actuated Green, G (s)	19.4		19.4	27.3	27.3	27.3	69.3	61.1			61.1			
Effective Green, g (s)	19.4		19.4	27.3	27.3	27.3	69.3	61.1			61.1			
Actuated g/C Ratio	0.14		0.14	0.20	0.20	0.20	0.50	0.44			0.44			
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0			
Lane Grp Cap (vph)	240		221	312	327	295	156	2244			2820			
v/s Ratio Prot	0.08						c0.03	c0.41			0.28			
v/s Ratio Perm			c0.11	c0.15	0.15	0.14	0.25							
v/c Ratio	0.60		0.77	0.78	0.76	0.74	0.57	0.93			0.65			
Uniform Delay, d ₁	56.6		58.2	53.4	53.2	53.0	22.9	37.5			31.0			
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.54	0.73			0.89			
Incremental Delay, d ₂	3.9		15.4	11.4	9.7	9.2	1.5	3.1			1.1			
Delay (s)	60.6		73.5	64.9	62.9	62.1	36.9	30.4			28.5			
Level of Service	E		E	E	E	E	D	C			C			
Approach Delay (s/veh)		69.3			63.1			30.7			28.5			
Approach LOS		E			E			C			C			
Intersection Summary														
HCM 2000 Control Delay (s/veh)			38.6									HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio			0.84											
Actuated Cycle Length (s)			140.0								24.0			
Intersection Capacity Utilization			89.1%										ICU Level of Service	E
Analysis Period (min)			15											
c Critical Lane Group														

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

FB_2031 PM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	159	62	163	55	87	127	1986	240	88	1130	67
Future Volume (vph)	120	159	62	163	55	87	127	1986	240	88	1130	67
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.0	27.0	27.0	27.0	27.0	27.0	99.0	86.2	86.2	98.6	85.9	85.9
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.71	0.62	0.62	0.70	0.61	0.61
v/c Ratio	0.52	0.46	0.19	0.88	0.16	0.26	0.39	0.66	0.27	0.53	0.38	0.07
Control Delay (s/veh)	59.0	54.8	11.8	92.0	44.9	9.4	7.4	9.2	0.7	27.6	15.2	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.0	54.8	11.8	92.0	44.9	9.4	7.4	9.2	0.7	27.6	15.2	3.6
LOS	E	D	B	F	D	A	A	A	A	C	B	A
Approach Delay (s/veh)		48.5			59.9			8.2			15.4	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay (s/veh): 17.3 Intersection LOS: B
 Intersection Capacity Utilization 101.7% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	126	167	65	172	58	92	134	2091	253	93	1189	71
v/c Ratio	0.52	0.46	0.19	0.88	0.16	0.26	0.39	0.66	0.27	0.53	0.38	0.07
Control Delay (s/veh)	59.0	54.8	11.8	92.0	44.9	9.4	7.4	9.2	0.7	27.6	15.2	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.0	54.8	11.8	92.0	44.9	9.4	7.4	9.2	0.7	27.6	15.2	3.6
Queue Length 50th (m)	33.9	44.5	0.3	49.2	14.2	0.0	3.6	44.2	0.5	7.1	60.0	0.0
Queue Length 95th (m)	m51.7	63.5	m13.1	72.1	25.0	14.1	m5.2	238.7	m0.0	27.4	89.8	8.0
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	367	543	478	297	559	497	363	3164	949	198	3156	953
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.31	0.14	0.58	0.10	0.19	0.37	0.66	0.27	0.47	0.38	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	159	62	163	55	87	127	1986	240	88	1130	67
Future Volume (vph)	120	159	62	163	55	87	127	1986	240	88	1130	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1667	1865	1484	1704	1921	1484	1749	5142	1465	1785	5142	1508
Fl _t Permitted	0.72	1.00	1.00	0.57	1.00	1.00	0.20	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1262	1865	1484	1023	1921	1484	363	5142	1465	100	5142	1508
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	167	65	172	58	92	134	2091	253	93	1189	71
RTOR Reduction (vph)	0	0	52	0	0	74	0	0	48	0	0	27
Lane Group Flow (vph)	126	167	13	172	58	18	134	2091	205	93	1189	44
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	27.0	27.0	27.0	27.0	27.0	27.0	95.2	86.2	86.2	94.8	86.0	86.0
Effective Green, g (s)	27.0	27.0	27.0	27.0	27.0	27.0	95.2	86.2	86.2	94.8	86.0	86.0
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.68	0.62	0.62	0.68	0.61	0.61
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	243	359	286	197	370	286	335	3166	902	173	3158	926
v/s Ratio Prot		0.09			0.03		0.03	c0.41		c0.03	0.23	
v/s Ratio Perm	0.10		0.01	c0.17		0.01	0.25		0.14	0.33		0.03
v/c Ratio	0.52	0.47	0.04	0.87	0.16	0.06	0.40	0.66	0.23	0.54	0.38	0.05
Uniform Delay, d ₁	50.7	50.1	46.0	54.8	47.0	46.2	8.4	17.4	12.0	16.8	13.5	10.7
Progression Factor	1.05	1.04	1.17	1.00	1.00	1.00	0.85	0.45	0.05	1.00	1.00	1.00
Incremental Delay, d ₂	1.9	1.0	0.1	31.9	0.2	0.1	0.4	0.5	0.3	3.2	0.3	0.1
Delay (s)	54.9	53.2	54.0	86.8	47.2	46.2	7.5	8.4	0.8	20.0	13.9	10.8
Level of Service	D	D	D	F	D	D	A	A	A	B	B	B
Approach Delay (s/veh)		54.0			68.1			7.6			14.1	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.5								B	
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0							18.0		
Intersection Capacity Utilization			101.7%								G	
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	323	539	4	6	190	76	1	6	5	29	1	60
Future Volume (Veh/h)	323	539	4	6	190	76	1	6	5	29	1	60
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	333	556	4	6	196	78	1	6	5	30	1	62
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.99						0.99	0.99		0.99	0.99	0.99
vC, conflicting volume	276			560			1495	1512	558	1479	1475	237
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	262			560			1494	1512	558	1479	1475	222
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	74			99			99	93	99	61	99	92
cM capacity (veh/h)	1280			1021			74	88	533	77	93	807
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	333	560	6	274	12	30	63					
Volume Left	333	0	6	0	1	30	0					
Volume Right	0	4	0	78	5	0	62					
cSH	1280	1700	1021	1700	132	77	719					
Volume to Capacity	0.26	0.33	0.01	0.16	0.09	0.39	0.09					
Queue Length 95th (m)	8.4	0.0	0.1	0.0	2.4	12.1	2.3					
Control Delay (s/veh)	8.8	0.0	8.5	0.0	35.1	78.2	10.5					
Lane LOS	A		A		E	F	B					
Approach Delay (s/veh)	3.3		0.2		35.1	32.3						
Approach LOS					E	D						
Intersection Summary												
Average Delay			5.0									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑↑	↑↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	2435	1384	14	
Future Volume (Veh/h)	0	0	0	2435	1384	14	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	0	0	0	2563	1457	15	
Pedestrians	7						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.67	0.89	0.89				
vC, conflicting volume	2318	493	1479				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	84	0	1092				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	606	961	563				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	854	854	854	486	486	486	15
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	15
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.50	0.50	0.50	0.29	0.29	0.29	0.01
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	50.4%			ICU Level of Service		A	
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd












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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	298	16	38	191	10	42
Future Volume (Veh/h)	298	16	38	191	10	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	351	19	45	225	12	49
Pedestrians						8
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						1
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			378			193
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			378			193
tC, single (s)			4.1			6.9
tC, 2 stage (s)						
tF (s)			2.2			3.3
p0 queue free %			96			94
cM capacity (veh/h)			1184			817
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	234	136	120	150	61	
Volume Left	0	0	45	0	12	
Volume Right	0	19	0	0	49	
cSH	1700	1700	1184	1700	697	
Volume to Capacity	0.14	0.08	0.04	0.09	0.09	
Queue Length 95th (m)	0.0	0.0	0.9	0.0	2.3	
Control Delay (s/veh)	0.0	0.0	3.3	0.0	10.7	
Lane LOS	A			B		
Approach Delay (s/veh)	0.0		1.5		10.7	
Approach LOS						B
Intersection Summary						
Average Delay	1.5					
Intersection Capacity Utilization	29.6%		ICU Level of Service			A
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

FB_2031 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	4	11	379	13	7	87
Future Volume (Veh/h)	4	11	379	13	7	87
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	5	13	436	15	8	100
Pedestrians	2		1		1	
Lane Width (m)	3.6		3.6		3.6	
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)	287					
pX, platoon unblocked						
vC, conflicting volume	513	229			453	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	513	229			453	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			99	
cM capacity (veh/h)	491	778			1116	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	18	291	160	41	67	
Volume Left	5	0	0	8	0	
Volume Right	13	0	15	0	0	
cSH	670	1700	1700	1116	1700	
Volume to Capacity	0.03	0.17	0.09	0.01	0.04	
Queue Length 95th (m)	0.7	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	10.5	0.0	0.0	1.6	0.0	
Lane LOS	B		A			
Approach Delay (s/veh)	10.5	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			21.4%		ICU Level of Service	A
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

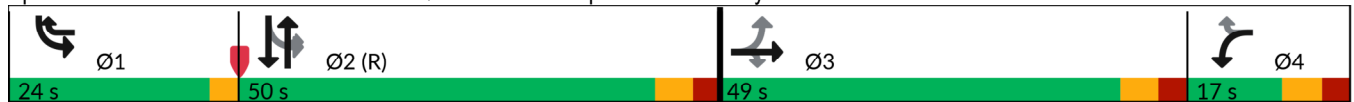
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	666	279	118	23	355	1530	59	334	1476
Future Volume (vph)	666	279	118	23	355	1530	59	334	1476
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	17.0	24.0	50.0	50.0	24.0	50.0
Total Split (%)	35.0%	35.0%	35.0%	12.1%	17.1%	35.7%	35.7%	17.1%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	41.7	41.7	41.7	10.0	35.5	46.3	46.3	75.1	46.3
Actuated g/C Ratio	0.30	0.30	0.30	0.07	0.25	0.33	0.33	0.54	0.33
v/c Ratio	0.97	0.94	0.22	0.19	0.79	0.93	0.10	0.89	0.89
Control Delay (s/veh)	82.8	74.3	9.7	65.2	50.6	55.8	0.5	62.3	63.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.8	74.3	9.7	65.2	50.6	55.8	0.5	62.3	63.6
LOS	F	E	A	E	D	E	A	E	E
Approach Delay (s/veh)		70.9				53.8			63.4
Approach LOS		E				D			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.97
 Intersection Signal Delay (s/veh): 60.9 Intersection LOS: E
 Intersection Capacity Utilization 95.1% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

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04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	476	489	120	23	362	1561	60	341	1506
v/c Ratio	0.97	0.94	0.22	0.19	0.79	0.93	0.10	0.89	0.89
Control Delay (s/veh)	82.8	74.3	9.7	65.2	50.6	55.8	0.5	62.3	63.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	82.8	74.3	9.7	65.2	50.6	55.8	0.5	62.3	63.6
Queue Length 50th (m)	144.1	145.8	3.1	6.4	76.3	165.8	0.0	~91.0	164.7
Queue Length 95th (m)	#219.6	#218.1	18.4	16.3	116.2	#201.7	0.8	#157.3	#195.0
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	493	526	537	121	458	1684	588	383	1684
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.97	0.93	0.22	0.19	0.79	0.93	0.10	0.89	0.89

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2031 PM_Improved
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	666	279	118	23	0	355	0	1530	59	334	1476	0
Future Volume (vph)	666	279	118	23	0	355	0	1530	59	334	1476	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1558	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.09	1.00	
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1558	173	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	680	285	120	23	0	362	0	1561	60	341	1506	0
RTOR Reduction (vph)	0	0	74	0	0	64	0	0	41	0	0	0
Lane Group Flow (vph)	476	489	46	23	0	298	0	1561	19	341	1506	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	41.7	41.7	41.7	6.0		31.3		43.5	43.5	68.8	43.5	
Effective Green, g (s)	41.7	41.7	41.7	6.0		31.3		43.5	43.5	68.8	43.5	
Actuated g/C Ratio	0.30	0.30	0.30	0.04		0.22		0.31	0.31	0.49	0.31	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	490	523	460	72		350		1582	484	376	1582	
v/s Ratio Prot				0.01		c0.15		c0.31		c0.16	0.30	
v/s Ratio Perm	c0.29	0.28	0.03			0.04			0.01	0.28		
v/c Ratio	0.97	0.93	0.10	0.32		0.85		0.99	0.04	0.91	0.95	
Uniform Delay, d1	48.6	47.8	35.6	65.0		52.1		48.0	33.7	42.6	47.2	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.11	1.29	
Incremental Delay, d2	33.2	24.1	0.1	2.6		17.8		19.7	0.1	20.2	11.3	
Delay (s)	81.8	71.9	35.7	67.6		69.9		67.7	33.8	67.3	72.1	
Level of Service	F	E	D	E		E		E	C	E	E	
Approach Delay (s/veh)		72.2			69.8			66.4			71.2	
Approach LOS		E			E			E			E	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	69.8	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	0.96	E
Actuated Cycle Length (s)	140.0	Sum of lost time (s)
Intersection Capacity Utilization	95.1%	23.5
Analysis Period (min)	15	ICU Level of Service
c Critical Lane Group		F

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

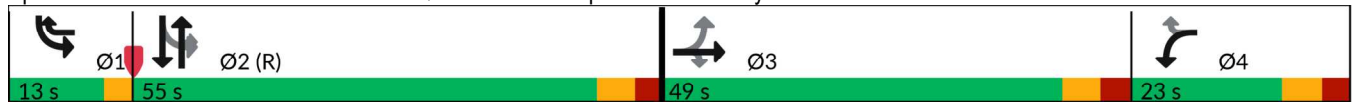
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	350	105	139	35	376	1343	9	196	1448
Future Volume (vph)	350	105	139	35	376	1343	9	196	1448
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	23.0	13.0	55.0	55.0	13.0	55.0
Total Split (%)	35.0%	35.0%	35.0%	16.4%	9.3%	39.3%	39.3%	9.3%	39.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	25.7	25.7	25.7	10.4	37.4	60.4	60.4	87.3	60.4
Actuated g/C Ratio	0.18	0.18	0.18	0.07	0.27	0.43	0.43	0.62	0.43
v/c Ratio	0.78	0.76	0.36	0.31	0.82	0.68	0.01	0.57	0.73
Control Delay (s/veh)	70.7	68.8	8.9	68.1	49.4	36.0	0.0	52.1	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	68.8	8.9	68.1	49.4	36.0	0.0	52.1	20.0
LOS	E	E	A	E	D	D	A	D	C
Approach Delay (s/veh)		55.5				35.8			23.9
Approach LOS		E				D			C

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 14 (10%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 35.4 Intersection LOS: D
 Intersection Capacity Utilization 76.3% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	241	248	149	38	404	1444	10	211	1557
v/c Ratio	0.78	0.76	0.36	0.31	0.82	0.68	0.01	0.57	0.73
Control Delay (s/veh)	70.7	68.8	8.9	68.1	49.4	36.0	0.0	52.1	20.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	68.8	8.9	68.1	49.4	36.0	0.0	52.1	20.0
Queue Length 50th (m)	71.3	73.1	0.0	10.7	85.4	122.7	0.0	37.3	113.8
Queue Length 95th (m)	96.5	98.3	17.9	22.8	125.7	163.0	0.0	m56.3	190.5
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	533	574	190	495	2114	720	371	2134
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.47	0.47	0.26	0.20	0.82	0.68	0.01	0.57	0.73

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	350	105	139	35	0	376	0	1343	9	196	1448	0
Future Volume (vph)	350	105	139	35	0	376	0	1343	9	196	1448	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1777	1566	1668		1581		4902	1526	1750	4948	
Flt Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.09	1.00	
Satd. Flow (perm)	1696	1777	1566	1668		1581		4902	1526	171	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	376	113	149	38	0	404	0	1444	10	211	1557	0
RTOR Reduction (vph)	0	0	122	0	0	77	0	0	6	0	0	0
Lane Group Flow (vph)	241	248	27	38	0	327	0	1444	4	211	1557	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	25.7	25.7	25.7	8.4		31.8		59.0	59.0	82.4	59.0	
Effective Green, g (s)	25.7	25.7	25.7	8.4		31.8		59.0	59.0	82.4	59.0	
Actuated g/C Ratio	0.18	0.18	0.18	0.06		0.23		0.42	0.42	0.59	0.42	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	311	326	287	100		359		2065	643	364	2085	
v/s Ratio Prot				0.02		c0.15		0.29		0.10	c0.31	
v/s Ratio Perm	c0.14	0.14	0.02			0.05			0.00	0.24		
v/c Ratio	0.77	0.76	0.10	0.38		0.91		0.70	0.01	0.58	0.75	
Uniform Delay, d1	54.4	54.2	47.5	63.3		52.7		33.2	23.5	25.8	34.2	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	2.00	0.52	
Incremental Delay, d2	11.4	10.0	0.1	2.4		26.3		2.0	0.0	1.3	1.5	
Delay (s)	65.8	64.3	47.6	65.7		79.0		35.2	23.5	53.1	19.4	
Level of Service	E	E	D	E		E		D	C	D	B	
Approach Delay (s/veh)		61.0			77.9			35.1			23.4	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			38.5								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	23.5
Intersection Capacity Utilization			76.3%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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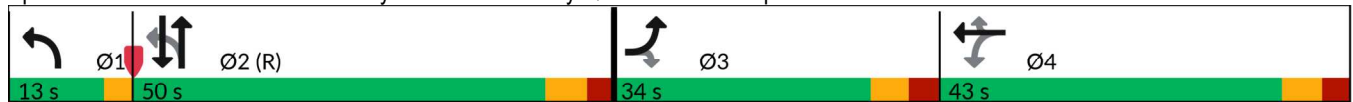


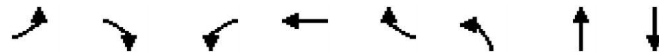
Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	28	126	392	290	376	120	1334	1835
Future Volume (vph)	28	126	392	290	376	120	1334	1835
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.1	9.1	41.4	41.4	41.4	69.4	55.0	55.0
Actuated g/C Ratio	0.07	0.07	0.30	0.30	0.30	0.50	0.39	0.39
v/c Ratio	0.26	0.59	0.80	0.73	0.55	0.68	0.72	0.82
Control Delay (s/veh)	67.1	20.6	58.7	52.3	6.1	50.2	53.0	41.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.1	20.6	58.7	52.3	6.1	50.2	53.0	41.6
LOS	E	C	E	D	A	D	D	D
Approach Delay (s/veh)				37.9			52.8	41.6
Approach LOS				D			D	D

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 43.9
 Intersection LOS: D
 Intersection Capacity Utilization 75.4%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp





Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	30	134	354	372	400	128	1419	2037
v/c Ratio	0.26	0.59	0.80	0.73	0.55	0.68	0.72	0.82
Control Delay (s/veh)	67.1	20.6	58.7	52.3	6.1	50.2	53.0	41.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.1	20.6	58.7	52.3	6.1	50.2	53.0	41.6
Queue Length 50th (m)	8.5	0.0	99.6	102.0	0.0	27.9	139.1	101.6
Queue Length 95th (m)	19.1	21.0	129.8	130.1	23.1	m#47.9	#174.9	#205.4
Internal Link Dist (m)				362.3			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	410	454	523	728	193	1980	2481
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.33	0.78	0.71	0.55	0.66	0.72	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	28	0	126	392	290	376	120	1334	0	0	1835	80
Future Volume (vph)	28	0	126	392	290	376	120	1334	0	0	1835	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1785		1566	1501	1729	1486	1750	5043			6305	
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.07	1.00			1.00	
Satd. Flow (perm)	1785		1566	1501	1729	1486	134	5043			6305	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	30	0	134	417	309	400	128	1419	0	0	1952	85
RTOR Reduction (vph)	0	0	125	0	0	282	0	0	0	0	4	0
Lane Group Flow (vph)	30	0	9	354	372	118	128	1419	0	0	2033	0
Confl. Peds. (#/hr)	2					2	19		11	11		19
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	9.1		9.1	41.4	41.4	41.4	65.5	55.1			55.1	
Effective Green, g (s)	9.1		9.1	41.4	41.4	41.4	65.5	55.1			55.1	
Actuated g/C Ratio	0.07		0.07	0.30	0.30	0.30	0.47	0.39			0.39	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	116		101	443	511	439	182	1984			2481	
v/s Ratio Prot	c0.02						c0.05	0.28			c0.32	
v/s Ratio Perm			0.01	c0.24	0.22	0.08	0.28					
v/c Ratio	0.26		0.09	0.80	0.73	0.27	0.70	0.72			0.82	
Uniform Delay, d1	62.2		61.5	45.5	44.2	37.7	28.0	35.8			38.0	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.40	1.38			0.99	
Incremental Delay, d2	1.2		0.4	9.7	5.1	0.3	8.7	1.7			2.8	
Delay (s)	63.4		61.9	55.2	49.4	38.1	48.0	50.9			40.4	
Level of Service	E		E	E	D	D	D	D			D	
Approach Delay (s/veh)		62.2			47.2			50.7			40.4	
Approach LOS		E			D			D			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			46.0								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	24.0
Intersection Capacity Utilization			75.4%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	64	69	209	89	112	43	1720	142	65	1671	120
Future Volume (vph)	47	64	69	209	89	112	43	1720	142	65	1671	120
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	96.7	87.0	87.0	98.0	87.7	87.7
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.69	0.62	0.62	0.70	0.63	0.63
v/c Ratio	0.20	0.18	0.20	0.81	0.26	0.30	0.23	0.57	0.17	0.36	0.55	0.13
Control Delay (s/veh)	46.5	45.9	10.6	74.8	46.1	8.5	7.6	8.7	0.4	13.0	17.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.5	45.9	10.6	74.8	46.1	8.5	7.6	8.7	0.4	13.0	17.3	5.4
LOS	D	D	B	E	D	A	A	A	A	B	B	A
Approach Delay (s/veh)		32.5			50.4			8.1			16.4	
Approach LOS		C			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 16.6 Intersection LOS: B
 Intersection Capacity Utilization 86.7% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	49	67	72	218	93	117	45	1792	148	68	1741	125
v/c Ratio	0.20	0.18	0.20	0.81	0.26	0.30	0.23	0.57	0.17	0.36	0.55	0.13
Control Delay (s/veh)	46.5	45.9	10.6	74.8	46.1	8.5	7.6	8.7	0.4	13.0	17.3	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.5	45.9	10.6	74.8	46.1	8.5	7.6	8.7	0.4	13.0	17.3	5.4
Queue Length 50th (m)	12.1	16.2	0.3	61.2	23.0	0.0	1.1	31.7	0.0	5.4	103.9	4.2
Queue Length 95th (m)	m21.9	m27.1	m12.1	84.4	36.0	15.2	m2.2	202.3	m0.2	13.2	146.0	15.6
Internal Link Dist (m)	94.8		110.5				147.8			261.0		
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	339	528	482	377	504	509	232	3165	854	211	3158	987
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.13	0.15	0.58	0.18	0.23	0.19	0.57	0.17	0.32	0.55	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	64	69	209	89	112	43	1720	142	65	1671	120
Future Volume (vph)	47	64	69	209	89	112	43	1720	142	65	1671	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1586	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524
Fl t Permitted	0.70	1.00	1.00	0.71	1.00	1.00	0.09	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1163	1812	1481	1295	1731	1463	171	5092	1322	147	5043	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	49	67	72	218	93	117	45	1792	148	68	1741	125
RTOR Reduction (vph)	0	0	57	0	0	93	0	0	33	0	0	33
Lane Group Flow (vph)	49	67	15	218	93	24	45	1792	115	68	1741	92
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.4	86.5	86.5	93.6	87.1	87.1
Effective Green, g (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.4	86.5	86.5	93.6	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.62	0.62	0.67	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	240	375	306	268	358	303	178	3146	816	167	3137	948
v/s Ratio Prot		0.04			0.05		0.01	c0.35		c0.02	0.35	
v/s Ratio Perm	0.04		0.01	c0.17		0.02	0.16		0.09	0.25		0.06
v/c Ratio	0.20	0.18	0.05	0.81	0.26	0.08	0.25	0.57	0.14	0.41	0.55	0.10
Uniform Delay, d1	45.9	45.7	44.5	52.9	46.5	44.7	10.4	15.8	11.2	11.2	15.3	10.6
Progression Factor	1.04	1.04	1.12	1.00	1.00	1.00	0.70	0.47	0.01	1.00	1.00	1.00
Incremental Delay, d2	0.4	0.2	0.1	17.0	0.4	0.1	0.6	0.6	0.3	1.6	0.7	0.2
Delay (s)	48.2	47.8	49.8	69.9	46.9	44.9	7.9	8.0	0.4	12.9	16.0	10.8
Level of Service	D	D	D	E	D	D	A	A	A	B	B	B
Approach Delay (s/veh)		48.6			58.0			7.4			15.5	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.4			HCM 2000 Level of Service			B			
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			140.0			Sum of lost time (s)			18.0			
Intersection Capacity Utilization			86.7%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FB_2036 AM
 04/17/2026

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	88	294	0	11	609	24	1	0	2	40	3	197	
Future Volume (Veh/h)	88	294	0	11	609	24	1	0	2	40	3	197	
Sign Control	Free			Free			Stop			Stop			
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)	98	327	0	12	677	27	1	0	2	44	3	219	
Pedestrians												1	
Lane Width (m)												3.6	
Walking Speed (m/s)												1.2	
Percent Blockage												0	
Right turn flare (veh)													
Median type	None				None								
Median storage (veh)													
Upstream signal (m)												188	
pX, platoon unblocked	0.79						0.79	0.79			0.79	0.79	0.79
vC, conflicting volume	705				327			1445	1252	327	1241	1239	692
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	496				327			1430	1187	327	1172	1170	479
tC, single (s)	4.1				4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)													
tF (s)	2.2				2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	88				99			98	100	100	63	98	53
cM capacity (veh/h)	845				1244			42	130	719	118	135	464
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total	98	327	12	704	3	44	222						
Volume Left	98	0	12	0	1	44	0						
Volume Right	0	0	0	27	2	0	219						
cSH	845	1700	1244	1700	113	118	449						
Volume to Capacity	0.12	0.19	0.01	0.41	0.03	0.37	0.49						
Queue Length 95th (m)	3.1	0.0	0.2	0.0	0.6	12.2	21.4						
Control Delay (s/veh)	9.8	0.0	7.9	0.0	37.6	52.3	20.6						
Lane LOS	A		A		E	F	C						
Approach Delay (s/veh)	2.3			0.1			37.6	25.8					
Approach LOS					E	D							
Intersection Summary													
Average Delay			5.7										
Intersection Capacity Utilization			Err%	ICU Level of Service		H							
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

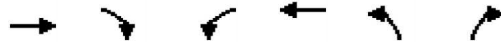
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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑	↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	1911	1982	2	
Future Volume (Veh/h)	0	0	0	1911	1982	2	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Hourly flow rate (vph)	0	0	0	2055	2131	2	
Pedestrians	1						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.86	0.80	0.80				
vC, conflicting volume	2817	711	2134				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	986	0	1541				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	211	867	341				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	685	685	685	710	710	710	2
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	2
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.40	0.40	0.40	0.42	0.42	0.42	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	41.6%			ICU Level of Service		A	
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd












FB_2036 AM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	178	1	4	276	0	4
Future Volume (Veh/h)	178	1	4	276	0	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	209	1	5	325	0	5
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)					119	
pX, platoon unblocked						
vC, conflicting volume			213		385	108
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			213		385	108
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1366		587	929
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	139	71	113	217	5	
Volume Left	0	0	5	0	0	
Volume Right	0	1	0	0	5	
cSH	1700	1700	1366	1700	929	
Volume to Capacity	0.08	0.04	0.00	0.13	0.01	
Queue Length 95th (m)	0.0	0.0	0.1	0.0	0.1	
Control Delay (s/veh)	0.0	0.0	0.4	0.0	8.9	
Lane LOS			A			A
Approach Delay (s/veh)	0.0	0.1				8.9
Approach LOS					A	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			20.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

FB_2036 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	1	1	118	5	0	247
Future Volume (Veh/h)	1	1	118	5	0	247
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	1	1	140	6	0	294
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	288					
pX, platoon unblocked						
vC, conflicting volume	292	75			148	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	292	75			148	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	679	976			1429	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	2	93	53	98	196	
Volume Left	1	0	0	0	0	
Volume Right	1	0	6	0	0	
cSH	801	1700	1700	1429	1700	
Volume to Capacity	0.00	0.05	0.03	0.00	0.12	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.5	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s/veh)	9.5	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			16.8%	ICU Level of Service	A	
Analysis Period (min)			15			



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	523	537	133	24	371	1600	62	350	1544
v/c Ratio	1.14	1.10	0.26	0.20	0.70	1.04	0.11	0.74	1.01
Control Delay (s/veh)	132.1	116.6	12.3	65.5	41.1	81.7	0.9	44.0	79.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	132.1	116.6	12.3	65.5	41.1	81.7	0.9	44.0	79.4
Queue Length 50th (m)	~186.9	~186.1	6.0	6.7	74.3	~191.2	0.0	89.6	~183.9
Queue Length 95th (m)	#263.3	#262.5	23.0	16.8	112.9	#222.4	1.3	#137.7	#215.6
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	489	506	218	530	1535	546	471	1535
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.14	1.10	0.26	0.11	0.70	1.04	0.11	0.74	1.01

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2036 PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	732	307	130	24	0	364	0	1568	61	343	1513	0
Future Volume (vph)	732	307	130	24	0	364	0	1568	61	343	1513	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1558	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1558	191	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	747	313	133	24	0	371	0	1600	62	350	1544	0
RTOR Reduction (vph)	0	0	76	0	0	60	0	0	45	0	0	0
Lane Group Flow (vph)	523	537	57	24	0	311	0	1600	17	350	1544	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	39.0	39.0	39.0	6.0		38.1		39.4	39.4	71.5	39.4	
Effective Green, g (s)	39.0	39.0	39.0	6.0		38.1		39.4	39.4	71.5	39.4	
Actuated g/C Ratio	0.28	0.28	0.28	0.04		0.27		0.28	0.28	0.51	0.28	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	458	489	430	72		426		1433	438	463	1433	
v/s Ratio Prot				0.01		c0.17		c0.31		c0.17	0.30	
v/s Ratio Perm	c0.32	0.31	0.04			0.03			0.01	0.21		
v/c Ratio	1.14	1.10	0.13	0.33		0.73		1.12	0.04	0.76	1.08	
Uniform Delay, d1	50.5	50.5	37.8	65.1		46.3		50.3	36.6	37.3	50.3	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.05	1.24	
Incremental Delay, d2	87.1	70.1	0.1	2.7		6.3		62.5	0.2	4.9	44.4	
Delay (s)	137.6	120.6	38.0	67.8		52.6		112.8	36.7	44.2	107.0	
Level of Service	F	F	D	E		D		F	D	D	F	
Approach Delay (s/veh)		118.8			53.6			110.0			95.4	
Approach LOS		F			D			F			F	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			102.3									F
HCM 2000 Volume to Capacity ratio			1.01									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			98.9%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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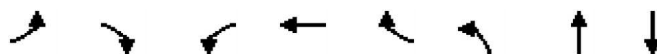
Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	141	297	432	76	432	89	2016	1727
Future Volume (vph)	141	297	432	76	432	89	2016	1727
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	11.0	52.0	52.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	7.9%	37.1%	37.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.2	21.2	29.7	29.7	29.7	69.1	57.2	57.2
Actuated g/C Ratio	0.15	0.15	0.21	0.21	0.21	0.49	0.41	0.41
v/c Ratio	0.57	0.88	0.79	0.77	0.90	0.61	1.02	0.71
Control Delay (s/veh)	62.9	56.8	68.0	65.9	45.2	35.7	45.6	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.9	56.8	68.0	65.9	45.2	35.7	45.6	33.8
LOS	E	E	E	E	D	D	D	C
Approach Delay (s/veh)				56.9			45.2	33.8
Approach LOS				E			D	C

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.02
 Intersection Signal Delay (s/veh): 44.6 Intersection LOS: D
 Intersection Capacity Utilization 92.1% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp





Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	150	316	267	274	460	95	2145	1868
v/c Ratio	0.57	0.88	0.79	0.77	0.90	0.61	1.02	0.71
Control Delay (s/veh)	62.9	56.8	68.0	65.9	45.2	35.7	45.6	33.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.9	56.8	68.0	65.9	45.2	35.7	45.6	33.8
Queue Length 50th (m)	40.7	52.4	76.9	78.6	66.1	11.7	~262.0	93.2
Queue Length 95th (m)	62.1	87.4	107.6	109.2	#113.2	m10.9	m#271.6	132.5
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	334	420	411	431	570	161	2099	2640
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.45	0.75	0.65	0.64	0.81	0.59	1.02	0.71

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	141	0	297	432	76	432	89	2016	0	0	1727	29
Future Volume (vph)	141	0	297	432	76	432	89	2016	0	0	1727	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1514	1767	5142			6461	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.07	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1514	130	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	150	0	316	460	81	460	95	2145	0	0	1837	31
RTOR Reduction (vph)	0	0	118	0	0	192	0	0	0	0	1	0
Lane Group Flow (vph)	150	0	198	267	274	268	95	2145	0	0	1867	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	21.2		21.2	29.7	29.7	29.7	65.1	57.2			57.2	
Effective Green, g (s)	21.2		21.2	29.7	29.7	29.7	65.1	57.2			57.2	
Actuated g/C Ratio	0.15		0.15	0.21	0.21	0.21	0.47	0.41			0.41	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	262		241	339	355	321	152	2100			2639	
v/s Ratio Prot	0.09						c0.04	c0.42			0.29	
v/s Ratio Perm			c0.12	0.17	0.16	c0.18	0.25					
v/c Ratio	0.57		0.82	0.79	0.77	0.83	0.63	1.02			0.71	
Uniform Delay, d1	55.2		57.6	52.2	52.0	52.8	25.8	41.4			34.4	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.44	0.76			0.87	
Incremental Delay, d2	3.0		19.7	11.5	10.0	16.8	0.7	12.5			1.6	
Delay (s)	58.2		77.3	63.6	61.9	69.6	37.9	43.8			31.7	
Level of Service	E		E	E	E	E	D	D			C	
Approach Delay (s/veh)		71.1			65.9			43.6			31.7	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			45.9									D
HCM 2000 Volume to Capacity ratio			0.91									
Actuated Cycle Length (s)			140.0							24.0		
Intersection Capacity Utilization			92.1%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	163	62	163	57	87	127	2036	240	88	1159	67
Future Volume (vph)	120	163	62	163	57	87	127	2036	240	88	1159	67
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.3	27.3	27.3	27.3	27.3	27.3	98.8	85.9	85.9	98.3	85.7	85.7
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.71	0.61	0.61	0.70	0.61	0.61
v/c Ratio	0.51	0.47	0.19	0.88	0.16	0.25	0.40	0.68	0.27	0.55	0.39	0.07
Control Delay (s/veh)	58.2	54.7	11.8	92.8	44.9	9.3	8.0	8.6	0.6	32.2	15.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.2	54.7	11.8	92.8	44.9	9.3	8.0	8.9	0.6	32.2	15.4	3.6
LOS	E	D	B	F	D	A	A	A	A	C	B	A
Approach Delay (s/veh)		48.3			60.2			8.0			16.0	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay (s/veh): 17.2 Intersection LOS: B
 Intersection Capacity Utilization 102.7% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	126	172	65	172	60	92	134	2143	253	93	1220	71
v/c Ratio	0.51	0.47	0.19	0.88	0.16	0.25	0.40	0.68	0.27	0.55	0.39	0.07
Control Delay (s/veh)	58.2	54.7	11.8	92.8	44.9	9.3	8.0	8.6	0.6	32.2	15.4	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.2	54.7	11.8	92.8	44.9	9.3	8.0	8.9	0.6	32.2	15.4	3.6
Queue Length 50th (m)	33.9	45.8	0.4	49.2	14.7	0.0	4.1	27.5	0.6	8.6	62.7	0.0
Queue Length 95th (m)	m51.5	m64.4	m12.6	72.3	25.7	14.1	m5.2	m228.0	m0.0	29.4	93.2	8.0
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	367	543	478	292	559	497	352	3154	945	192	3146	950
Starvation Cap Reductn	0	0	0	0	0	0	0	379	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.32	0.14	0.59	0.11	0.19	0.38	0.77	0.27	0.48	0.39	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	163	62	163	57	87	127	2036	240	88	1159	67
Future Volume (vph)	120	163	62	163	57	87	127	2036	240	88	1159	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1668	1865	1484	1704	1921	1484	1749	5142	1465	1785	5142	1508
Fl t Permitted	0.72	1.00	1.00	0.56	1.00	1.00	0.19	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1260	1865	1484	1005	1921	1484	348	5142	1465	91	5142	1508
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	172	65	172	60	92	134	2143	253	93	1220	71
RTOR Reduction (vph)	0	0	52	0	0	74	0	0	47	0	0	28
Lane Group Flow (vph)	126	172	13	172	60	18	134	2143	206	93	1220	43
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	27.3	27.3	27.3	27.3	27.3	27.3	95.0	85.9	85.9	94.4	85.6	85.6
Effective Green, g (s)	27.3	27.3	27.3	27.3	27.3	27.3	95.0	85.9	85.9	94.4	85.6	85.6
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.68	0.61	0.61	0.67	0.61	0.61
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	245	363	289	195	374	289	327	3154	898	167	3143	922
v/s Ratio Prot		0.09			0.03		0.03	c0.42		c0.03	0.24	
v/s Ratio Perm	0.10		0.01	c0.17		0.01	0.25		0.14	0.34		0.03
v/c Ratio	0.51	0.47	0.04	0.88	0.16	0.06	0.41	0.68	0.23	0.56	0.39	0.05
Uniform Delay, d1	50.4	50.0	45.8	54.8	46.8	45.9	8.5	17.9	12.2	19.7	13.9	10.9
Progression Factor	1.04	1.04	1.18	1.00	1.00	1.00	0.99	0.42	0.05	1.00	1.00	1.00
Incremental Delay, d2	1.8	1.0	0.1	34.0	0.2	0.1	0.3	0.4	0.2	4.0	0.4	0.1
Delay (s)	54.3	53.0	54.2	88.8	47.0	46.0	8.7	7.8	0.8	23.6	14.2	11.0
Level of Service	D	D	D	F	D	D	A	A	A	C	B	B
Approach Delay (s/veh)		53.7			68.9			7.2			14.7	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.4								B	
HCM 2000 Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			140.0							18.0		
Intersection Capacity Utilization			102.7%								G	
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FB_2036 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	331	566	4	6	200	78	1	6	5	30	1	62
Future Volume (Veh/h)	331	566	4	6	200	78	1	6	5	30	1	62
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	341	584	4	6	206	80	1	6	5	31	1	64
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.98						0.98	0.98		0.98	0.98	0.98
vC, conflicting volume	288			588			1551	1568	586	1534	1530	248
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	267			588			1551	1569	586	1535	1531	226
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			99			98	92	99	55	99	92
cM capacity (veh/h)	1267			997			66	80	514	69	84	798
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	341	588	6	286	12	31	65					
Volume Left	341	0	6	0	1	31	0					
Volume Right	0	4	0	80	5	0	64					
cSH	1267	1700	997	1700	120	69	706					
Volume to Capacity	0.27	0.35	0.01	0.17	0.10	0.45	0.09					
Queue Length 95th (m)	8.8	0.0	0.1	0.0	2.6	14.1	2.4					
Control Delay (s/veh)	8.9	0.0	8.6	0.0	38.4	93.3	10.6					
Lane LOS	A		A		E	F	B					
Approach Delay (s/veh)	3.3		0.2		38.4	37.3						
Approach LOS					E	E						
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			Err%		ICU Level of Service				H			
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

FB_2036 PM
 04/17/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑↑	↑↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	2495	1418	14	
Future Volume (Veh/h)	0	0	0	2495	1418	14	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	0	0	0	2626	1493	15	
Pedestrians	7						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.66	0.88	0.88				
vC, conflicting volume	2375	505	1515				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	44	0	1114				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	631	956	549				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	875	875	875	498	498	498	15
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	15
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.51	0.51	0.51	0.29	0.29	0.29	0.01
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	51.5%			ICU Level of Service			A
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd











FB_2036 PM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	306	16	38	196	10	42
Future Volume (Veh/h)	306	16	38	196	10	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	360	19	45	231	12	49
Pedestrians						8
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						1
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			387			583 198
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			387			583 198
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			96			97 94
cM capacity (veh/h)			1175			428 811
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	240	139	122	154	61	
Volume Left	0	0	45	0	12	
Volume Right	0	19	0	0	49	
cSH	1700	1700	1175	1700	690	
Volume to Capacity	0.14	0.08	0.04	0.09	0.09	
Queue Length 95th (m)	0.0	0.0	1.0	0.0	2.3	
Control Delay (s/veh)	0.0	0.0	3.2	0.0	10.7	
Lane LOS	A			B		
Approach Delay (s/veh)	0.0		1.4	10.7		
Approach LOS				B		
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			29.9%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

FB_2036 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	11	389	13	7	90
Future Volume (Veh/h)	4	11	389	13	7	90
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	5	13	447	15	8	103
Pedestrians	2		1			1
Lane Width (m)	3.6		3.6		3.6	
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)	287					
pX, platoon unblocked						
vC, conflicting volume	525	234			464	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	525	234			464	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			99	
cM capacity (veh/h)	482	772			1106	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	18	298	164	42	69	
Volume Left	5	0	0	8	0	
Volume Right	13	0	15	0	0	
cSH	662	1700	1700	1106	1700	
Volume to Capacity	0.03	0.18	0.10	0.01	0.04	
Queue Length 95th (m)	0.7	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	10.6	0.0	0.0	1.6	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	10.6	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			21.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2036 PM_Improved
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	732	307	130	24	364	1568	61	343	1513
Future Volume (vph)	732	307	130	24	364	1568	61	343	1513
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	59.0	59.0	59.0	17.0	27.0	57.0	57.0	27.0	57.0
Total Split (%)	36.9%	36.9%	36.9%	10.6%	16.9%	35.6%	35.6%	16.9%	35.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	52.0	52.0	52.0	10.0	40.6	50.9	50.9	84.8	50.9
Actuated g/C Ratio	0.33	0.33	0.33	0.06	0.25	0.32	0.32	0.53	0.32
v/c Ratio	0.98	0.94	0.23	0.23	0.82	0.99	0.11	0.89	0.95
Control Delay (s/veh)	86.9	78.1	13.6	76.8	61.1	73.2	2.2	72.1	73.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.9	78.1	13.6	76.8	61.1	73.2	2.2	72.1	73.8
LOS	F	E	B	E	E	E	A	E	E
Approach Delay (s/veh)		74.8				70.6			73.5
Approach LOS		E				E			E

Intersection Summary

Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 97 (61%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay (s/veh): 72.0
 Intersection LOS: E
 Intersection Capacity Utilization 98.9%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2036 PM_Improved
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	523	537	133	24	371	1600	62	350	1544
v/c Ratio	0.98	0.94	0.23	0.23	0.82	0.99	0.11	0.89	0.95
Control Delay (s/veh)	86.9	78.1	13.6	76.8	61.1	73.2	2.2	72.1	73.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	86.9	78.1	13.6	76.8	61.1	73.2	2.2	72.1	73.8
Queue Length 50th (m)	182.8	184.6	8.6	7.8	97.2	196.5	0.0	~112.7	159.2
Queue Length 95th (m)	#265.3	#263.3	25.9	18.5	#148.6	#233.0	3.7	#183.2	#224.2
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	534	570	566	106	450	1620	560	392	1620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.94	0.23	0.23	0.82	0.99	0.11	0.89	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

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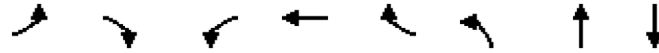


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	732	307	130	24	0	364	0	1568	61	343	1513	0
Future Volume (vph)	732	307	130	24	0	364	0	1568	61	343	1513	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1557	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.08	1.00	
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1557	156	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	747	313	133	24	0	371	0	1600	62	350	1544	0
RTOR Reduction (vph)	0	0	65	0	0	56	0	0	43	0	0	0
Lane Group Flow (vph)	523	537	68	24	0	315	0	1600	19	350	1544	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	52.0	52.0	52.0	6.0		36.4		48.1	48.1	78.5	48.1	
Effective Green, g (s)	52.0	52.0	52.0	6.0		36.4		48.1	48.1	78.5	48.1	
Actuated g/C Ratio	0.33	0.33	0.33	0.04		0.23		0.30	0.30	0.49	0.30	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	534	570	502	63		356		1530	468	386	1530	
v/s Ratio Prot				0.01		c0.17		c0.31		c0.17	0.30	
v/s Ratio Perm	c0.32	0.31	0.04			0.03			0.01	0.27		
v/c Ratio	0.98	0.94	0.14	0.38		0.89		1.05	0.04	0.91	1.01	
Uniform Delay, d1	53.5	52.5	38.1	75.2		59.8		56.0	39.6	50.2	56.0	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.19	1.19	
Incremental Delay, d2	33.3	24.1	0.1	3.8		22.2		36.0	0.2	19.5	22.2	
Delay (s)	86.7	76.7	38.3	79.0		81.9		91.9	39.8	79.0	88.6	
Level of Service	F	E	D	E		F		F	D	E	F	
Approach Delay (s/veh)		76.8			81.8			90.0			86.8	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	85.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	23.5
Intersection Capacity Utilization	98.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2036 PM_Improved
04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	141	297	432	76	432	89	2016	1727
Future Volume (vph)	141	297	432	76	432	89	2016	1727
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	37.0	37.0	43.0	43.0	43.0	19.0	61.0	61.0
Total Split (%)	23.1%	23.1%	26.9%	26.9%	26.9%	11.9%	38.1%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.6	20.6	31.6	31.6	31.6	87.8	73.7	73.7
Actuated g/C Ratio	0.13	0.13	0.20	0.20	0.20	0.55	0.46	0.46
v/c Ratio	0.67	0.85	0.84	0.83	0.86	0.59	0.91	0.63
Control Delay (s/veh)	80.3	47.7	84.5	81.8	38.8	46.7	32.7	36.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.3	47.7	84.5	81.8	38.8	46.7	32.7	36.1
LOS	F	D	F	F	D	D	C	D
Approach Delay (s/veh)				62.8			33.3	36.1
Approach LOS				E			C	D

Intersection Summary

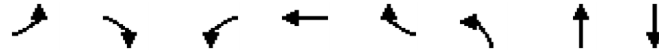
Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 131 (82%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay (s/veh): 41.6
 Intersection LOS: D
 Intersection Capacity Utilization 92.1%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2036 PM_Improved
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	150	316	267	274	460	95	2145	1868
v/c Ratio	0.67	0.85	0.84	0.83	0.86	0.59	0.91	0.63
Control Delay (s/veh)	80.3	47.7	84.5	81.8	38.8	46.7	32.7	36.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	80.3	47.7	84.5	81.8	38.8	46.7	32.7	36.1
Queue Length 50th (m)	49.0	44.1	90.3	92.2	59.5	16.0	262.1	136.9
Queue Length 95th (m)	69.8	78.6	126.4	127.8	108.1	m17.1 m#	334.3	182.4
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	324	453	363	380	567	225	2369	2980
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.70	0.74	0.72	0.81	0.42	0.91	0.63

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2036 PM_Improved
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	141	0	297	432	76	432	89	2016	0	0	1727	29
Future Volume (vph)	141	0	297	432	76	432	89	2016	0	0	1727	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.97	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1511	1767	5142			6461	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.06	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1511	107	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	150	0	316	460	81	460	95	2145	0	0	1837	31
RTOR Reduction (vph)	0	0	165	0	0	234	0	0	0	0	1	0
Lane Group Flow (vph)	150	0	151	267	274	226	95	2145	0	0	1867	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	20.6		20.6	31.6	31.6	31.6	83.8	73.8			73.8	
Effective Green, g (s)	20.6		20.6	31.6	31.6	31.6	83.8	73.8			73.8	
Actuated g/C Ratio	0.13		0.13	0.20	0.20	0.20	0.52	0.46			0.46	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	223		205	316	331	298	159	2371			2980	
v/s Ratio Prot	0.09						c0.04	c0.42			0.29	
v/s Ratio Perm			c0.09	c0.17	0.16	0.15	0.27					
v/c Ratio	0.67		0.74	0.84	0.83	0.76	0.60	0.90			0.63	
Uniform Delay, d1	66.5		67.1	61.8	61.6	60.6	25.2	39.8			32.7	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.60	0.72			1.00	
Incremental Delay, d2	7.8		13.0	18.3	15.5	10.6	1.9	2.1			1.0	
Delay (s)	74.2		80.1	80.1	77.1	71.2	42.1	30.9			33.7	
Level of Service	E		F	F	E	E	D	C			C	
Approach Delay (s/veh)		78.2			75.2			31.4			33.7	
Approach LOS		E			E			C			C	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	43.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	160.0	Sum of lost time (s)	24.0
Intersection Capacity Utilization	92.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	262	271	163	40	432	1480	11	225	1595
v/c Ratio	0.79	0.78	0.37	0.32	0.83	0.76	0.02	0.58	0.82
Control Delay (s/veh)	69.5	68.0	8.3	68.5	51.7	41.2	0.0	60.6	22.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.5	68.0	8.3	68.5	51.7	41.2	0.0	60.6	22.8
Queue Length 50th (m)	77.4	80.0	0.0	11.3	93.8	141.1	0.0	46.2	172.7
Queue Length 95th (m)	102.5	104.9	17.9	24.0	#162.6	168.7	0.0	m57.5	m190.1
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	532	583	190	519	1936	668	390	1954
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.51	0.28	0.21	0.83	0.76	0.02	0.58	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2041 AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	381	114	152	37	0	402	0	1376	10	209	1483	0
Future Volume (vph)	381	114	152	37	0	402	0	1376	10	209	1483	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1777	1566	1668		1581		4902	1526	1750	4948	
Flt Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.07	1.00	
Satd. Flow (perm)	1696	1777	1566	1668		1581		4902	1526	136	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	410	123	163	40	0	432	0	1480	11	225	1595	0
RTOR Reduction (vph)	0	0	131	0	0	64	0	0	7	0	0	0
Lane Group Flow (vph)	262	271	32	40	0	368	0	1480	4	225	1595	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	27.5	27.5	27.5	8.4		35.0		54.0	54.0	80.6	54.0	
Effective Green, g (s)	27.5	27.5	27.5	8.4		35.0		54.0	54.0	80.6	54.0	
Actuated g/C Ratio	0.20	0.20	0.20	0.06		0.25		0.39	0.39	0.58	0.39	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	333	349	307	100		395		1890	588	384	1908	
v/s Ratio Prot				0.02		c0.18		0.30		0.11	c0.32	
v/s Ratio Perm	c0.15	0.15	0.02			0.06			0.00	0.22		
v/c Ratio	0.79	0.78	0.10	0.40		0.93		0.78	0.01	0.59	0.84	
Uniform Delay, d1	53.5	53.3	46.1	63.4		51.3		37.8	26.5	32.7	39.0	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.93	0.52	
Incremental Delay, d2	11.6	10.4	0.2	2.6		28.7		3.3	0.0	1.0	2.1	
Delay (s)	65.1	63.7	46.3	66.0		80.0		41.2	26.5	64.1	22.4	
Level of Service	E	E	D	E		F		D	C	E	C	
Approach Delay (s/veh)		60.1			78.8			41.1			27.6	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)	42.5			HCM 2000 Level of Service				D				
HCM 2000 Volume to Capacity ratio	0.85											
Actuated Cycle Length (s)	140.0			Sum of lost time (s)				23.5				
Intersection Capacity Utilization	79.6%			ICU Level of Service				D				
Analysis Period (min)	15											
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 AM
 04/17/2026

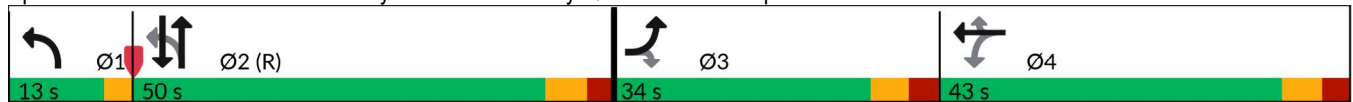


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	30	135	428	316	409	128	1366	1879
Future Volume (vph)	30	135	428	316	409	128	1366	1879
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.2	9.2	47.0	47.0	47.0	63.8	48.8	48.8
Actuated g/C Ratio	0.07	0.07	0.34	0.34	0.34	0.46	0.35	0.35
v/c Ratio	0.27	0.61	0.77	0.70	0.56	0.70	0.83	0.95
Control Delay (s/veh)	67.4	20.4	52.6	47.2	7.0	51.8	62.1	52.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.4	20.4	52.6	47.2	7.0	51.8	62.1	52.5
LOS	E	C	D	D	A	D	E	D
Approach Delay (s/veh)				34.6			61.2	52.5
Approach LOS				C			E	D

Intersection Summary

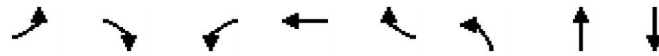
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.95
 Intersection Signal Delay (s/veh): 50.1 Intersection LOS: D
 Intersection Capacity Utilization 78.2% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 AM
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	32	144	387	404	435	136	1453	2089
v/c Ratio	0.27	0.61	0.77	0.70	0.56	0.70	0.83	0.95
Control Delay (s/veh)	67.4	20.4	52.6	47.2	7.0	51.8	62.1	52.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.4	20.4	52.6	47.2	7.0	51.8	62.1	52.5
Queue Length 50th (m)	9.1	0.0	105.8	107.0	4.9	33.5	162.4	106.8
Queue Length 95th (m)	19.9	21.5	145.6	144.1	32.2	m#47.6	#184.1	#214.5
Internal Link Dist (m)				362.3			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	418	504	580	771	198	1756	2200
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.34	0.77	0.70	0.56	0.69	0.83	0.95

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	30	0	135	428	316	409	128	1366	0	0	1879	85
Future Volume (vph)	30	0	135	428	316	409	128	1366	0	0	1879	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1785		1566	1501	1729	1486	1750	5043			6304	
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.08	1.00			1.00	
Satd. Flow (perm)	1785		1566	1501	1729	1486	151	5043			6304	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	0	144	455	336	435	136	1453	0	0	1999	90
RTOR Reduction (vph)	0	0	135	0	0	272	0	0	0	0	4	0
Lane Group Flow (vph)	32	0	9	387	404	163	136	1453	0	0	2085	0
Confl. Peds. (#/hr)	2					2	19		11	11		19
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	9.2		9.2	47.0	47.0	47.0	59.8	48.8			48.8	
Effective Green, g (s)	9.2		9.2	47.0	47.0	47.0	59.8	48.8			48.8	
Actuated g/C Ratio	0.07		0.07	0.34	0.34	0.34	0.43	0.35			0.35	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	117		102	503	580	498	190	1757			2197	
v/s Ratio Prot	c0.02						c0.06	0.29			c0.33	
v/s Ratio Perm			0.01	c0.26	0.23	0.11	0.25					
v/c Ratio	0.27		0.09	0.77	0.70	0.33	0.72	0.83			0.95	
Uniform Delay, d1	62.2		61.5	41.6	40.3	34.7	31.6	41.7			44.4	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.45	1.39			0.97	
Incremental Delay, d2	1.3		0.4	7.0	3.6	0.4	8.2	3.1			9.4	
Delay (s)	63.5		61.9	48.6	44.0	35.1	54.2	61.2			52.4	
Level of Service	E		E	D	D	D	D	E			D	
Approach Delay (s/veh)		62.2			42.3			60.6			52.4	
Approach LOS		E			D			E			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			52.9								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	24.0
Intersection Capacity Utilization			78.2%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	65	69	209	91	112	43	1762	142	65	1711	120
Future Volume (vph)	47	65	69	209	91	112	43	1762	142	65	1711	120
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	96.6	87.0	87.0	98.1	87.7	87.7
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.69	0.62	0.62	0.70	0.63	0.63
v/c Ratio	0.20	0.18	0.20	0.81	0.27	0.30	0.23	0.58	0.17	0.37	0.56	0.13
Control Delay (s/veh)	46.6	45.8	10.6	74.8	46.2	8.5	8.2	6.9	0.5	13.3	17.6	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.6	45.8	10.6	74.8	46.2	8.5	8.2	6.9	0.5	13.3	17.6	5.6
LOS	D	D	B	E	D	A	A	A	A	B	B	A
Approach Delay (s/veh)		32.6			50.4			6.5			16.7	
Approach LOS		C			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 16.0 Intersection LOS: B
 Intersection Capacity Utilization 87.5% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	49	68	72	218	95	117	45	1835	148	68	1782	125
v/c Ratio	0.20	0.18	0.20	0.81	0.27	0.30	0.23	0.58	0.17	0.37	0.56	0.13
Control Delay (s/veh)	46.6	45.8	10.6	74.8	46.2	8.5	8.2	6.9	0.5	13.3	17.6	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	46.6	45.8	10.6	74.8	46.2	8.5	8.2	6.9	0.5	13.3	17.6	5.6
Queue Length 50th (m)	12.1	16.6	0.3	61.2	23.5	0.0	1.0	23.4	0.0	5.4	107.6	4.4
Queue Length 95th (m)	m21.7	m27.2	m12.1	84.4	36.5	15.2	m2.2	208.4	m0.4	13.2	151.1	15.9
Internal Link Dist (m)	94.8		110.5				147.8				261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	338	528	482	377	504	509	226	3162	852	207	3158	986
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.13	0.15	0.58	0.19	0.23	0.20	0.58	0.17	0.33	0.56	0.13

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	47	65	69	209	91	112	43	1762	142	65	1711	120
Future Volume (vph)	47	65	69	209	91	112	43	1762	142	65	1711	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1586	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524
Fl _t Permitted	0.70	1.00	1.00	0.71	1.00	1.00	0.09	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	1161	1812	1481	1294	1731	1463	162	5092	1322	137	5043	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	49	68	72	218	95	117	45	1835	148	68	1782	125
RTOR Reduction (vph)	0	0	57	0	0	93	0	0	32	0	0	32
Lane Group Flow (vph)	49	68	15	218	95	24	45	1835	116	68	1782	93
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.3	86.4	86.4	93.7	87.1	87.1
Effective Green, g (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.3	86.4	86.4	93.7	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.62	0.62	0.67	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	240	375	306	268	358	303	173	3142	815	162	3137	948
v/s Ratio Prot		0.04			0.05		0.01	c0.36		c0.02	0.35	
v/s Ratio Perm	0.04		0.01	c0.17		0.02	0.16		0.09	0.26		0.06
v/c Ratio	0.20	0.18	0.05	0.81	0.27	0.08	0.26	0.58	0.14	0.42	0.57	0.10
Uniform Delay, d ₁	45.9	45.7	44.5	52.9	46.6	44.7	10.6	16.0	11.2	11.6	15.5	10.6
Progression Factor	1.04	1.04	1.12	1.00	1.00	1.00	0.79	0.36	0.03	1.00	1.00	1.00
Incremental Delay, d ₂	0.4	0.2	0.1	17.0	0.4	0.1	0.6	0.6	0.3	1.8	0.8	0.2
Delay (s)	48.2	47.8	50.1	69.9	47.0	44.9	9.0	6.3	0.6	13.4	16.2	10.8
Level of Service	D	D	D	E	D	D	A	A	A	B	B	B
Approach Delay (s/veh)		48.8			58.0			6.0			15.8	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.8								HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	18.0
Intersection Capacity Utilization			87.5%								ICU Level of Service	E
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FB_2041 AM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	90	314	0	11	651	25	1	0	2	41	3	202
Future Volume (Veh/h)	90	314	0	11	651	25	1	0	2	41	3	202
Sign Control		Free			Free			Stop			Stop	
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)	100	349	0	12	723	28	1	0	2	46	3	224
Pedestrians												1
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.77						0.77	0.77		0.77	0.77	0.77
vC, conflicting volume	752			349			1522	1325	349	1313	1311	738
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	532			349			1528	1274	349	1258	1256	514
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	87			99			97	100	100	54	97	48
cM capacity (veh/h)	800			1221			32	112	699	100	116	433
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	100	349	12	751	3	46	227					
Volume Left	100	0	12	0	1	46	0					
Volume Right	0	0	0	28	2	0	224					
cSH	800	1700	1221	1700	88	100	418					
Volume to Capacity	0.13	0.21	0.01	0.44	0.03	0.46	0.54					
Queue Length 95th (m)	3.4	0.0	0.2	0.0	0.8	15.8	25.2					
Control Delay (s/veh)	10.1	0.0	8.0	0.0	47.6	68.5	23.4					
Lane LOS	B		A		E	F	C					
Approach Delay (s/veh)	2.3		0.1		47.6	31.0						
Approach LOS					E	D						
Intersection Summary												
Average Delay			6.5									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

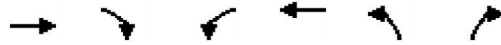
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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑	↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	1957	2029	2	
Future Volume (Veh/h)	0	0	0	1957	2029	2	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	
Hourly flow rate (vph)	0	0	0	2104	2182	2	
Pedestrians	1						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.84	0.79	0.79				
vC, conflicting volume	2884	728	2185				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	910	0	1577				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	230	859	328				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	701	701	701	727	727	727	2
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	2
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.41	0.41	0.41	0.43	0.43	0.43	0.00
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	42.5%			ICU Level of Service		A	
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd












FB_2041 AM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	182	1	4	283	0	4
Future Volume (Veh/h)	182	1	4	283	0	4
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	214	1	5	333	0	5
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	119					
pX, platoon unblocked						
vC, conflicting volume			218		394	111
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			218		394	111
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	99
cM capacity (veh/h)			1360		579	926
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	143	72	116	222	5	
Volume Left	0	0	5	0	0	
Volume Right	0	1	0	0	5	
cSH	1700	1700	1360	1700	926	
Volume to Capacity	0.08	0.04	0.00	0.13	0.01	
Queue Length 95th (m)	0.0	0.0	0.1	0.0	0.1	
Control Delay (s/veh)	0.0	0.0	0.4	0.0	8.9	
Lane LOS			A			A
Approach Delay (s/veh)	0.0	0.1				8.9
Approach LOS					A	
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			20.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

FB_2041 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	1	1	121	5	0	253
Future Volume (Veh/h)	1	1	121	5	0	253
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	1	1	144	6	0	301
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)	288					
pX, platoon unblocked						
vC, conflicting volume	300	77			152	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	300	77			152	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	672	973			1424	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	2	96	54	100	201	
Volume Left	1	0	0	0	0	
Volume Right	1	0	6	0	0	
cSH	795	1700	1700	1424	1700	
Volume to Capacity	0.00	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.5	0.0	0.0	0.0	0.0	
Lane LOS	A					
Approach Delay (s/veh)	9.5	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			17.0%		ICU Level of Service	A
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2041 PM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	798	335	142	25	373	1606	62	351	1549
Future Volume (vph)	798	335	142	25	373	1606	62	351	1549
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	46.0	46.0	46.0	25.0	22.0	47.0	47.0	22.0	47.0
Total Split (%)	32.9%	32.9%	32.9%	17.9%	15.7%	33.6%	33.6%	15.7%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.0	39.0	39.0	10.0	42.7	41.8	41.8	77.8	41.8
Actuated g/C Ratio	0.28	0.28	0.28	0.07	0.31	0.30	0.30	0.56	0.30
v/c Ratio	1.24	1.20	0.29	0.21	0.71	1.08	0.12	0.75	1.04
Control Delay (s/veh)	169.3	151.0	14.2	65.8	41.9	92.9	1.1	42.5	87.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	169.3	151.0	14.2	65.8	41.9	92.9	1.1	42.5	87.5
LOS	F	F	B	E	D	F	A	D	F
Approach Delay (s/veh)		143.8				89.5			79.2
Approach LOS		F				F			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.24
 Intersection Signal Delay (s/veh): 95.5 Intersection LOS: F
 Intersection Capacity Utilization 102.6% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	570	586	145	26	381	1639	63	358	1581
v/c Ratio	1.24	1.20	0.29	0.21	0.71	1.08	0.12	0.75	1.04
Control Delay (s/veh)	169.3	151.0	14.2	65.8	41.9	92.9	1.1	42.5	87.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	169.3	151.0	14.2	65.8	41.9	92.9	1.1	42.5	87.5
Queue Length 50th (m)	~216.8	~217.3	8.7	7.3	77.6	~199.8	0.0	91.9	~192.0
Queue Length 95th (m)	#294.5	#295.5	27.0	17.7	117.3	#230.9	1.5 m	#139.8	#223.6
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	489	506	218	534	1522	542	475	1522
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.24	1.20	0.29	0.12	0.71	1.08	0.12	0.75	1.04

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2041 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	798	335	142	25	0	373	0	1606	62	351	1549	0
Future Volume (vph)	798	335	142	25	0	373	0	1606	62	351	1549	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1558	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1558	192	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	814	342	145	26	0	381	0	1639	63	358	1581	0
RTOR Reduction (vph)	0	0	76	0	0	60	0	0	45	0	0	0
Lane Group Flow (vph)	570	586	69	26	0	321	0	1639	18	358	1581	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	39.0	39.0	39.0	6.0		38.4		39.1	39.1	71.5	39.1	
Effective Green, g (s)	39.0	39.0	39.0	6.0		38.4		39.1	39.1	71.5	39.1	
Actuated g/C Ratio	0.28	0.28	0.28	0.04		0.27		0.28	0.28	0.51	0.28	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	458	489	430	72		429		1422	435	466	1422	
v/s Ratio Prot				0.02		c0.17		c0.32		c0.18	0.31	
v/s Ratio Perm	c0.35	0.33	0.04			0.03			0.01	0.21		
v/c Ratio	1.24	1.20	0.16	0.36		0.75		1.15	0.04	0.77	1.11	
Uniform Delay, d1	50.5	50.5	38.1	65.1		46.4		50.4	36.8	37.5	50.4	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.01	1.26	
Incremental Delay, d2	127.3	107.7	0.2	3.1		7.0		77.2	0.2	4.7	57.1	
Delay (s)	177.8	158.2	38.3	68.2		53.4		127.6	36.9	42.7	120.8	
Level of Service	F	F	D	E		D		F	D	D	F	
Approach Delay (s/veh)		153.4			54.4			124.3			106.4	
Approach LOS		F			D			F			F	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			119.6									F
HCM 2000 Volume to Capacity ratio			1.05									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			102.6%									G
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 PM
 04/17/2026

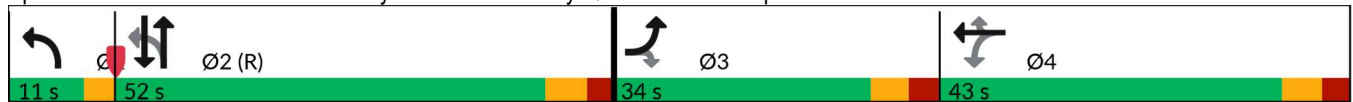


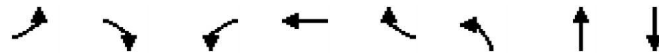
Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	148	311	471	83	470	93	2065	1768
Future Volume (vph)	148	311	471	83	470	93	2065	1768
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	11.0	52.0	52.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	7.9%	37.1%	37.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.7	22.7	32.5	32.5	32.5	64.8	52.9	52.9
Actuated g/C Ratio	0.16	0.16	0.23	0.23	0.23	0.46	0.38	0.38
v/c Ratio	0.56	0.90	0.78	0.77	0.94	0.63	1.13	0.78
Control Delay (s/veh)	61.0	61.1	65.4	63.3	53.0	34.3	92.8	37.7
Queue Delay	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	61.1	61.1	65.4	63.3	53.1	34.3	92.8	37.7
LOS	E	E	E	E	D	C	F	D
Approach Delay (s/veh)				59.2			90.2	37.7
Approach LOS				E			F	D

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.13
 Intersection Signal Delay (s/veh): 64.6
 Intersection LOS: E
 Intersection Capacity Utilization 95.0%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp





Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	157	331	291	298	500	99	2197	1913
v/c Ratio	0.56	0.90	0.78	0.77	0.94	0.63	1.13	0.78
Control Delay (s/veh)	61.0	61.1	65.4	63.3	53.0	34.3	92.8	37.7
Queue Delay	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
Total Delay (s/veh)	61.1	61.1	65.4	63.3	53.1	34.3	92.8	37.7
Queue Length 50th (m)	41.8	58.9	80.2	81.6	79.1	10.7	~305.2	111.0
Queue Length 95th (m)	65.0	#105.3	118.3	119.6	#148.0	m9.5	m#262.5	137.6
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	334	413	415	435	569	159	1942	2441
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	9	0	0	0	1	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.80	0.70	0.69	0.88	0.62	1.13	0.78

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	148	0	311	471	83	470	93	2065	0	0	1768	30
Future Volume (vph)	148	0	311	471	83	470	93	2065	0	0	1768	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Fr _t	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Fl _t Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1514	1767	5142			6461	
Fl _t Permitted	0.95		1.00	0.95	0.97	1.00	0.08	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1514	141	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	157	0	331	501	88	500	99	2197	0	0	1881	32
RTOR Reduction (vph)	0	0	110	0	0	183	0	0	0	0	1	0
Lane Group Flow (vph)	157	0	221	291	298	317	99	2197	0	0	1912	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	22.7		22.7	32.5	32.5	32.5	60.8	52.9			52.9	
Effective Green, g (s)	22.7		22.7	32.5	32.5	32.5	60.8	52.9			52.9	
Actuated g/C Ratio	0.16		0.16	0.23	0.23	0.23	0.43	0.38			0.38	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	280		258	371	389	351	152	1942			2441	
v/s Ratio Prot	0.09						c0.04	c0.43			0.30	
v/s Ratio Perm			c0.14	0.18	0.18	c0.21	0.25					
v/c Ratio	0.56		0.86	0.78	0.77	0.90	0.65	1.13			0.78	
Uniform Delay, d ₁	54.1		57.1	50.5	50.2	52.2	28.8	43.6			38.5	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.31	0.77			0.87	
Incremental Delay, d ₂	2.6		23.4	10.4	8.7	25.5	0.9	59.8			2.5	
Delay (s)	56.6		80.5	60.9	58.9	77.7	38.5	93.5			36.0	
Level of Service	E		F	E	E	E	D	F			D	
Approach Delay (s/veh)		72.8			68.1			91.1			36.0	
Approach LOS		E			E			F			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			67.0									E
HCM 2000 Volume to Capacity ratio			0.98									
Actuated Cycle Length (s)			140.0							24.0		
Intersection Capacity Utilization			95.0%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	167	62	163	58	87	127	2085	240	88	1187	67
Future Volume (vph)	120	167	62	163	58	87	127	2085	240	88	1187	67
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	27.5	27.5	27.5	27.5	27.5	27.5	98.6	85.7	85.7	98.0	85.4	85.4
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.70	0.61	0.61	0.70	0.61	0.61
v/c Ratio	0.51	0.48	0.19	0.89	0.16	0.25	0.41	0.70	0.27	0.55	0.40	0.07
Control Delay (s/veh)	57.8	54.7	11.7	94.0	44.7	9.3	7.8	8.9	0.5	33.4	15.7	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.8	54.7	11.7	94.0	44.7	9.3	7.8	9.2	0.5	33.4	15.7	3.9
LOS	E	D	B	F	D	A	A	A	A	C	B	A
Approach Delay (s/veh)		48.2			60.8			8.3			16.3	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay (s/veh): 17.5 Intersection LOS: B
 Intersection Capacity Utilization 103.6% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	126	176	65	172	61	92	134	2195	253	93	1249	71
v/c Ratio	0.51	0.48	0.19	0.89	0.16	0.25	0.41	0.70	0.27	0.55	0.40	0.07
Control Delay (s/veh)	57.8	54.7	11.7	94.0	44.7	9.3	7.8	8.9	0.5	33.4	15.7	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	57.8	54.7	11.7	94.0	44.7	9.3	7.8	9.2	0.5	33.4	15.7	3.9
Queue Length 50th (m)	33.8	46.9	0.5	49.3	14.9	0.0	4.4	31.5	0.7	9.1	64.9	0.2
Queue Length 95th (m)	m51.6	m65.9	m12.2	72.4	25.6	14.0	m5.1	m216.0	m0.0	29.9	96.4	8.3
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	366	543	478	288	559	497	343	3148	943	190	3137	947
Starvation Cap Reductn	0	0	0	0	0	0	0	376	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.34	0.32	0.14	0.60	0.11	0.19	0.39	0.79	0.27	0.49	0.40	0.07

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















FB_2041 PM
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	120	167	62	163	58	87	127	2085	240	88	1187	67
Future Volume (vph)	120	167	62	163	58	87	127	2085	240	88	1187	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1668	1865	1484	1705	1921	1484	1749	5142	1465	1785	5142	1508
Fl _t Permitted	0.72	1.00	1.00	0.55	1.00	1.00	0.18	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1259	1865	1484	991	1921	1484	334	5142	1465	88	5142	1508
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	126	176	65	172	61	92	134	2195	253	93	1249	71
RTOR Reduction (vph)	0	0	52	0	0	74	0	0	46	0	0	27
Lane Group Flow (vph)	126	176	13	172	61	18	134	2195	207	93	1249	44
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	27.5	27.5	27.5	27.5	27.5	27.5	94.8	85.7	85.7	94.2	85.4	85.4
Effective Green, g (s)	27.5	27.5	27.5	27.5	27.5	27.5	94.8	85.7	85.7	94.2	85.4	85.4
Actuated g/C Ratio	0.20	0.20	0.20	0.20	0.20	0.20	0.68	0.61	0.61	0.67	0.61	0.61
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	247	366	291	194	377	291	318	3147	896	165	3136	919
v/s Ratio Prot		0.09			0.03		0.03	c0.43		c0.04	0.24	
v/s Ratio Perm	0.10		0.01	c0.17		0.01	0.26		0.14	0.34		0.03
v/c Ratio	0.51	0.48	0.04	0.89	0.16	0.06	0.42	0.70	0.23	0.56	0.40	0.05
Uniform Delay, d1	50.2	49.9	45.6	54.7	46.7	45.8	8.7	18.4	12.3	21.5	14.1	11.0
Progression Factor	1.04	1.04	1.18	1.00	1.00	1.00	1.06	0.43	0.06	1.00	1.00	1.00
Incremental Delay, d2	1.8	1.0	0.1	34.8	0.2	0.1	0.1	0.1	0.1	4.4	0.4	0.1
Delay (s)	54.1	52.9	53.9	89.6	46.9	45.8	9.3	8.1	0.7	25.8	14.4	11.1
Level of Service	D	D	D	F	D	D	A	A	A	C	B	B
Approach Delay (s/veh)		53.5			69.2			7.4			15.0	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.6								B	
HCM 2000 Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			140.0							18.0		
Intersection Capacity Utilization			103.6%								G	
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FB_2041 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	339	593	4	6	209	80	1	6	5	31	1	63
Future Volume (Veh/h)	339	593	4	6	209	80	1	6	5	31	1	63
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	349	611	4	6	215	82	1	6	5	32	1	65
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.98						0.98	0.98		0.98	0.98	0.98
vC, conflicting volume	299			615			1604	1622	613	1587	1583	258
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	272			615			1606	1625	613	1589	1585	230
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	72			99			98	92	99	49	99	92
cM capacity (veh/h)	1255			974			59	72	496	62	77	790
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	349	615	6	297	12	32	66					
Volume Left	349	0	6	0	1	32	0					
Volume Right	0	4	0	82	5	0	65					
cSH	1255	1700	974	1700	109	62	692					
Volume to Capacity	0.28	0.36	0.01	0.17	0.11	0.51	0.10					
Queue Length 95th (m)	9.2	0.0	0.1	0.0	2.9	16.4	2.5					
Control Delay (s/veh)	9.0	0.0	8.7	0.0	41.9	112.2	10.7					
Lane LOS	A		A		E	F	B					
Approach Delay (s/veh)	3.2		0.2		41.9	43.9						
Approach LOS					E	E						
Intersection Summary												
Average Delay			5.8									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

FB_2041 PM
 04/17/2026



Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations				↑↑↑	↑↑↑	↗	
Traffic Volume (veh/h)	0	0	0	2555	1452	14	
Future Volume (Veh/h)	0	0	0	2555	1452	14	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Hourly flow rate (vph)	0	0	0	2689	1528	15	
Pedestrians	7						
Lane Width (m)	0.0						
Walking Speed (m/s)	1.2						
Percent Blockage	0						
Right turn flare (veh)							
Median type				None	None		
Median storage veh							
Upstream signal (m)				113	172		
pX, platoon unblocked	0.69	0.88	0.88				
vC, conflicting volume	2431	516	1550				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	289	0	1136				
tC, single (s)	6.8	6.9	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	467	951	535				
Direction, Lane #	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	896	896	896	509	509	509	15
Volume Left	0	0	0	0	0	0	0
Volume Right	0	0	0	0	0	0	15
cSH	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.53	0.53	0.53	0.30	0.30	0.30	0.01
Queue Length 95th (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS							
Approach Delay (s/veh)	0.0			0.0			
Approach LOS							
Intersection Summary							
Average Delay	0.0						
Intersection Capacity Utilization	52.7%			ICU Level of Service		A	
Analysis Period (min)	15						

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access & Leanne Blvd

FB_2041 PM
 04/17/2026














Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	313	16	38	201	10	42
Future Volume (Veh/h)	313	16	38	201	10	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	368	19	45	236	12	49
Pedestrians						8
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						1
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			395			594 202
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			395			594 202
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			96			97 94
cM capacity (veh/h)			1167			421 807

Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1
Volume Total	245	142	124	157	61
Volume Left	0	0	45	0	12
Volume Right	0	19	0	0	49
cSH	1700	1700	1167	1700	684
Volume to Capacity	0.14	0.08	0.04	0.09	0.09
Queue Length 95th (m)	0.0	0.0	1.0	0.0	2.3
Control Delay (s/veh)	0.0	0.0	3.2	0.0	10.8
Lane LOS	A			B	
Approach Delay (s/veh)	0.0		1.4	10.8	
Approach LOS	B				

Intersection Summary					
Average Delay	1.4				
Intersection Capacity Utilization	30.2%		ICU Level of Service		A
Analysis Period (min)	15				

HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & South Site Access

FB_2041 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	4	11	398	13	7	92
Future Volume (Veh/h)	4	11	398	13	7	92
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	5	13	457	15	8	106
Pedestrians	2		1			1
Lane Width (m)	3.6		3.6		3.6	
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)	287					
pX, platoon unblocked						
vC, conflicting volume	537	239			474	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	537	239			474	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	98			99	
cM capacity (veh/h)	474	766			1097	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	18	305	167	43	71	
Volume Left	5	0	0	8	0	
Volume Right	13	0	15	0	0	
cSH	655	1700	1700	1097	1700	
Volume to Capacity	0.03	0.18	0.10	0.01	0.04	
Queue Length 95th (m)	0.7	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	10.7	0.0	0.0	1.6	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	10.7	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			21.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2041 PM_Improved
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	798	335	142	25	373	1606	62	351	1549
Future Volume (vph)	798	335	142	25	373	1606	62	351	1549
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	59.0	59.0	59.0	17.0	27.0	57.0	57.0	27.0	57.0
Total Split (%)	36.9%	36.9%	36.9%	10.6%	16.9%	35.6%	35.6%	16.9%	35.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	52.0	52.0	52.0	10.0	41.0	50.5	50.5	84.8	50.5
Actuated g/C Ratio	0.33	0.33	0.33	0.06	0.26	0.32	0.32	0.53	0.32
v/c Ratio	1.07	1.03	0.26	0.25	0.84	1.02	0.11	0.90	0.98
Control Delay (s/veh)	108.5	96.9	15.5	77.5	62.5	80.8	2.3	70.7	81.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	108.5	96.9	15.5	77.5	62.5	80.8	2.3	70.7	81.8
LOS	F	F	B	E	E	F	A	E	F
Approach Delay (s/veh)		92.9				77.9			79.7
Approach LOS		F				E			E

Intersection Summary

Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 97 (61%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.07
 Intersection Signal Delay (s/veh): 81.1 Intersection LOS: F
 Intersection Capacity Utilization 102.6% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2041 PM_Improved
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	570	586	145	26	381	1639	63	358	1581
v/c Ratio	1.07	1.03	0.26	0.25	0.84	1.02	0.11	0.90	0.98
Control Delay (s/veh)	108.5	96.9	15.5	77.5	62.5	80.8	2.3	70.7	81.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	108.5	96.9	15.5	77.5	62.5	80.8	2.3	70.7	81.8
Queue Length 50th (m)	~220.8	~219.4	11.5	8.5	101.3	~212.2	0.0	~117.8	186.0
Queue Length 95th (m)	#301.1	#301.2	29.8	19.6	#156.4	#242.9	4.2	#188.2	#234.1
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	534	570	566	106	454	1607	556	397	1607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.07	1.03	0.26	0.25	0.84	1.02	0.11	0.90	0.98

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FB_2041 PM_Improved
 04/17/2026

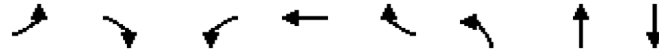


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	798	335	142	25	0	373	0	1606	62	351	1549	0
Future Volume (vph)	798	335	142	25	0	373	0	1606	62	351	1549	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1756	1545	1700		1566		5092	1557	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.08	1.00	
Satd. Flow (perm)	1646	1756	1545	1700		1566		5092	1557	158	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	814	342	145	26	0	381	0	1639	63	358	1581	0
RTOR Reduction (vph)	0	0	65	0	0	55	0	0	44	0	0	0
Lane Group Flow (vph)	570	586	80	26	0	326	0	1639	19	358	1581	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	52.0	52.0	52.0	6.0		36.8		47.7	47.7	78.5	47.7	
Effective Green, g (s)	52.0	52.0	52.0	6.0		36.8		47.7	47.7	78.5	47.7	
Actuated g/C Ratio	0.33	0.33	0.33	0.04		0.23		0.30	0.30	0.49	0.30	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	534	570	502	63		360		1518	464	390	1518	
v/s Ratio Prot				0.02		c0.17		c0.32		c0.18	0.31	
v/s Ratio Perm	c0.35	0.33	0.05			0.03			0.01	0.27		
v/c Ratio	1.07	1.03	0.16	0.41		0.90		1.08	0.04	0.92	1.04	
Uniform Delay, d1	54.0	54.0	38.4	75.3		59.9		56.2	39.9	50.4	56.2	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.16	1.25	
Incremental Delay, d2	58.2	45.1	0.1	4.3		25.1		47.9	0.2	20.0	31.1	
Delay (s)	112.2	99.1	38.6	79.6		85.0		104.0	40.1	78.3	101.0	
Level of Service	F	F	D	E		F		F	D	E	F	
Approach Delay (s/veh)		98.1			84.6			101.7			96.8	
Approach LOS		F			F			F			F	

Intersection Summary		
HCM 2000 Control Delay (s/veh)	97.7	HCM 2000 Level of Service
HCM 2000 Volume to Capacity ratio	1.03	F
Actuated Cycle Length (s)	160.0	Sum of lost time (s)
Intersection Capacity Utilization	102.6%	23.5
Analysis Period (min)	15	ICU Level of Service
		G
c Critical Lane Group		

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 PM_Improved
04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	148	311	471	83	470	93	2065	1768
Future Volume (vph)	148	311	471	83	470	93	2065	1768
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	37.0	37.0	43.0	43.0	43.0	19.0	61.0	61.0
Total Split (%)	23.1%	23.1%	26.9%	26.9%	26.9%	11.9%	38.1%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.7	21.7	34.1	34.1	34.1	84.2	69.8	69.8
Actuated g/C Ratio	0.14	0.14	0.21	0.21	0.21	0.53	0.44	0.44
v/c Ratio	0.67	0.88	0.85	0.83	0.92	0.61	0.98	0.68
Control Delay (s/veh)	78.6	53.6	83.0	80.0	48.2	45.4	37.1	39.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.6	53.6	83.0	80.0	48.2	45.4	37.1	39.8
LOS	E	D	F	E	D	D	D	D
Approach Delay (s/veh)				66.2			37.4	39.8
Approach LOS				E			D	D

Intersection Summary

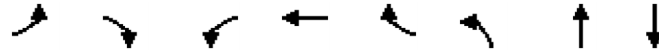
Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 131 (82%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay (s/veh): 45.7
 Intersection LOS: D
 Intersection Capacity Utilization 95.0%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 PM_Improved
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	157	331	291	298	500	99	2197	1913
v/c Ratio	0.67	0.88	0.85	0.83	0.92	0.61	0.98	0.68
Control Delay (s/veh)	78.6	53.6	83.0	80.0	48.2	45.4	37.1	39.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	78.6	53.6	83.0	80.0	48.2	45.4	37.1	39.8
Queue Length 50th (m)	50.7	51.4	96.7	98.6	77.5	18.5	~288.4	153.6
Queue Length 95th (m)	73.1	87.6	#147.4	#146.9	#148.4	m16.8 m	#325.5	189.3
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	324	448	370	387	567	223	2243	2818
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.74	0.79	0.77	0.88	0.44	0.98	0.68

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FB_2041 PM_Improved
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙		↘	↙	↖	↗	↙	↑↑↑			↑↑↑	
Traffic Volume (vph)	148	0	311	471	83	470	93	2065	0	0	1768	30
Future Volume (vph)	148	0	311	471	83	470	93	2065	0	0	1768	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.97	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1511	1767	5142			6461	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.06	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1511	107	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	157	0	331	501	88	500	99	2197	0	0	1881	32
RTOR Reduction (vph)	0	0	159	0	0	224	0	0	0	0	1	0
Lane Group Flow (vph)	157	0	172	291	298	276	99	2197	0	0	1912	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	21.7		21.7	34.1	34.1	34.1	80.2	69.8			69.8	
Effective Green, g (s)	21.7		21.7	34.1	34.1	34.1	80.2	69.8			69.8	
Actuated g/C Ratio	0.14		0.14	0.21	0.21	0.21	0.50	0.44			0.44	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	235		216	341	357	322	161	2243			2818	
v/s Ratio Prot	0.09						c0.04	c0.43			0.30	
v/s Ratio Perm			c0.11	0.18	0.18	c0.18	0.27					
v/c Ratio	0.67		0.80	0.85	0.83	0.86	0.61	0.98			0.68	
Uniform Delay, d1	65.7		67.0	60.5	60.3	60.6	27.8	44.4			36.1	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.54	0.75			1.00	
Incremental Delay, d2	7.0		18.1	18.3	15.4	19.5	0.6	2.7			1.3	
Delay (s)	72.7		85.1	78.8	75.6	80.1	43.4	36.0			37.4	
Level of Service	E		F	E	E	F	D	D			D	
Approach Delay (s/veh)		81.1			78.5			36.3			37.4	
Approach LOS		F			E			D			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			48.4								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			160.0								Sum of lost time (s)	24.0
Intersection Capacity Utilization			95.0%								ICU Level of Service	F
Analysis Period (min)			15									
c Critical Lane Group												

APPENDIX

H TTS Data



TTS Trip Distribution Summary

In order to inform the trip assignment stage of the analysis, information about the general trip distribution is required to inform the analysis. The distribution represents the proportion of trips to and away from the site in any given direction. The following pages summarize the general trip distribution results, which were calculated using Transportation Tomorrow Survey (TTS) 2022 trip origin and destination data. Trips were grouped under cardinal directions based on the relative angle between trip origin and destination, and appropriate adjustments were made to the calculation to conform to local geography and street grid.

The "TTS Directional Distribution Summary" on the next page presents a summary of the calculations described above, along with notes on any details specific to the analysis in this report. The table shows the total number of trips to and from the subject site categorized into general directions (North, Northeast, East etc.) and the percentage share of trips in each general direction in all directions.

The pages after show graphical illustrations of the categorizations for all Traffic Analysis Zones (TAZ) in the TTS survey area. Note that the latest survey zones were last updated in 2022.

These results are used as reference information for the trip assignment. They do not directly determine the trip assignment on the study network. The final trip assignments are completed based on a combination of local context, engineering experience, and engineering judgement, with the trip distribution information presented here to illustrate general travel behaviour.

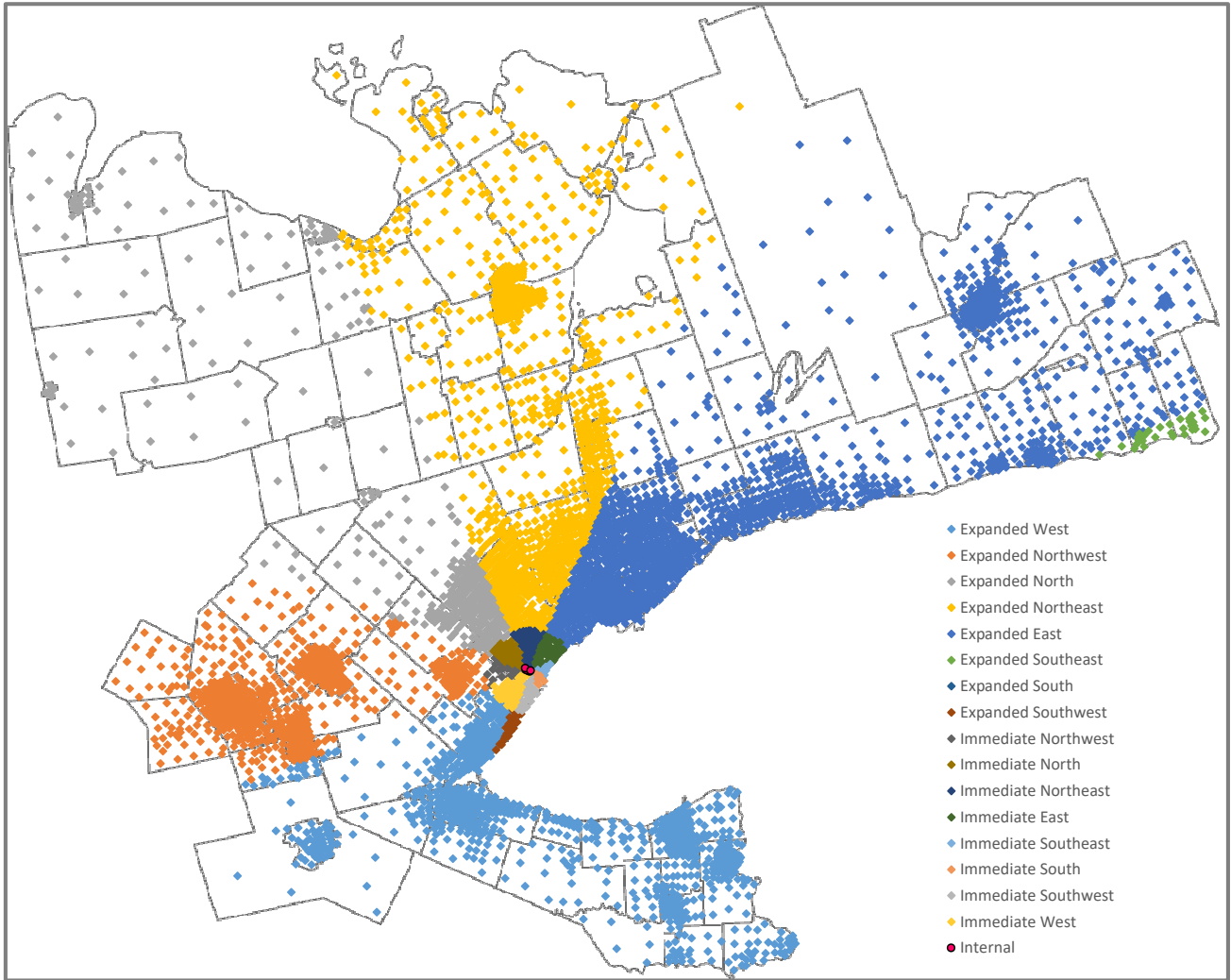
TTS Directional Distribution Summary:

Notes:

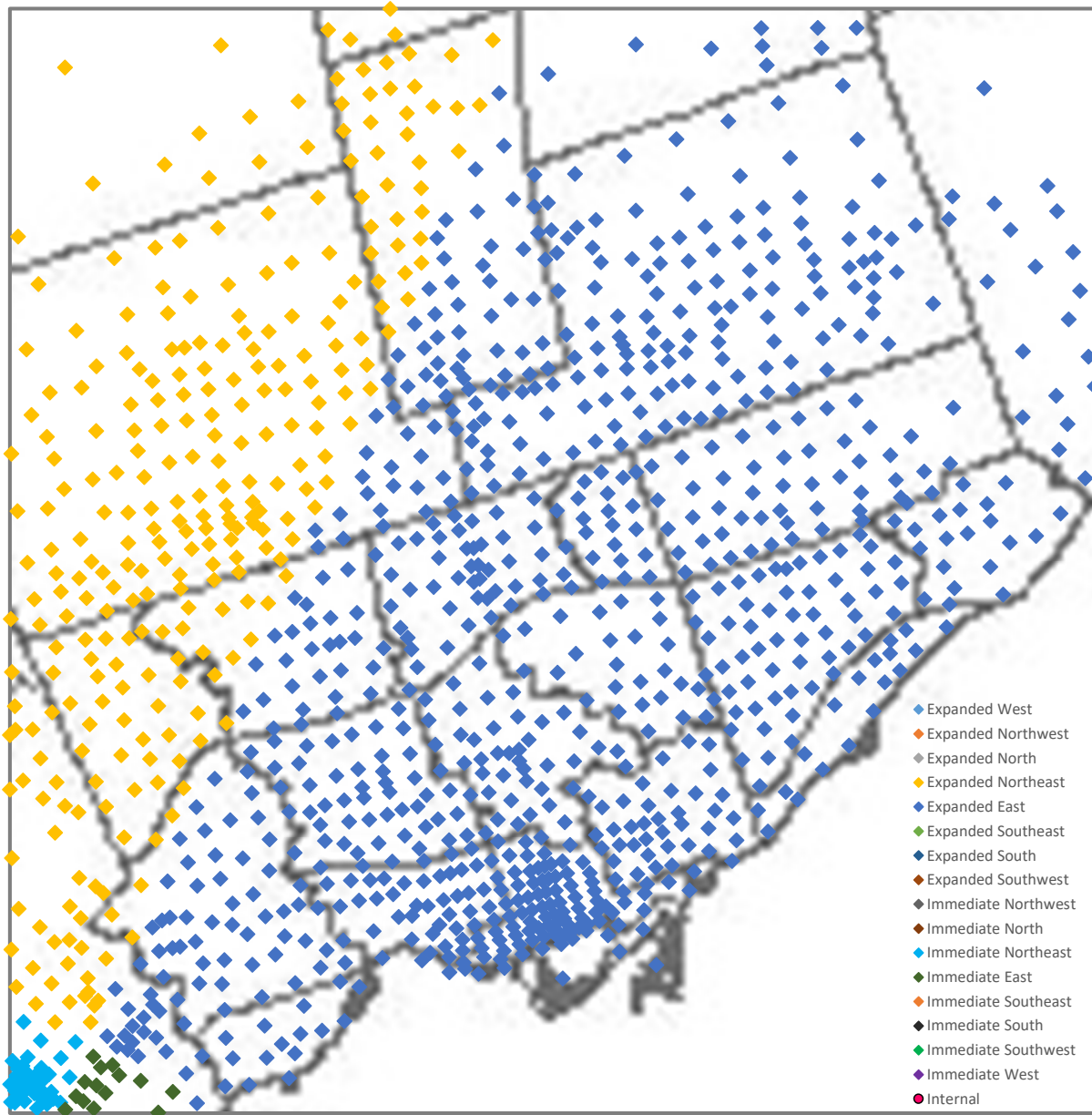
1. Directions determined based on centroid coordinates of destination/origin traffic analysis zones.
2. 'Immediate Area' refers to local trips made within the defined radius, while 'Expanded Area' refers to trips made to areas outside of the defined radius.
3. 'I' refers to local trips made within the subject TAZ that do not have a cardinal direction assigned to them. These trips are excluded from the analysis.

	Time Period	Direction	Immediate Area										Expanded Area									
			I	NW	N	NE	E	SE	S	SW	W	Total	NW	N	NE	E	SE	S	SW	W	Total	
Trips	A.M.	Inbound	38	10	76	0	0	0	0	0	0	0	86	0	0	0	0	0	0	0	95	95
		Outbound	129	403	140	154	39	0	39	27	137	939	39	83	348	114	0	0	0	42	626	
	P.M.	Inbound	142	198	94	146	134	0	20	15	227	834	86	43	307	211	0	0	45	21	713	
		Outbound	30	86	56	206	0	0	87	0	80	515	0	62	41	50	0	0	0	62	215	
Percentage	A.M.	Inbound	17%	5%	35%	0%	0%	0%	0%	0%	0%	39%	0%	0%	0%	0%	0%	0%	0%	43%	43%	
		Outbound	8%	24%	8%	9%	2%	0%	2%	2%	8%	55%	2%	5%	21%	7%	0%	0%	0%	2%	37%	
	P.M.	Inbound	8%	12%	6%	9%	8%	0%	1%	1%	13%	49%	5%	3%	18%	12%	0%	0%	3%	1%	42%	
		Outbound	4%	11%	7%	27%	0%	0%	11%	0%	11%	68%	0%	8%	5%	7%	0%	0%	0%	8%	28%	

TAZ Directional Categorisation Visualisation (Complete TTS Survey Area)



TAZ Directional Categorisation Visualisation (City of Toronto)



Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of origin - tts22_orig
Column: 2022 TTS zone of destination - tts22_dest

Filters:
2022 TTS zone 4663 4409 4412 4414
and
Start time of trip - start_time In 630-930
and
2022 Trip purpo 45

Trip 2022

Table:

	4400	4412	4414
4398	0	10	0
4414	0	0	38
4657	0	0	21
4662	0	0	38
4704	17	0	0
6214	5	0	0
11277	0	90	0

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of destination - tts22_dest
Column: 2022 TTS zone of origin - tts22_orig

Filters:
2022 TTS : 4663 4409 4412 4414
and
Start time of trip - start_time In 630-930
and
2022 Trip F 45

Trip 2022
Table:

	4409	4412	4414	4663
1038	0	0	0	35
1137	0	0	0	18
3070	0	28	0	0
3119	0	0	0	32
3133	36	0	0	0
3272	0	29	0	0
4117	0	0	9	0
4181	0	0	0	53
4277	0	29	0	0
4355	0	0	0	39
4394	0	0	0	35
4396	0	29	0	39
4398	58	62	0	91
4401	4	0	0	0
4408	0	28	0	0
4414	0	91	38	0
4418	0	12	0	0
4462	0	9	0	0
4490	0	21	0	0
4501	0	10	0	0
4504	0	0	0	41
4528	0	0	0	39
4542	0	95	0	0
4558	0	0	0	35
4583	0	0	0	59
4651	7	135	0	0
4653	0	0	0	41
4657	0	0	42	0
4662	0	0	38	0
4672	14	0	0	0
4683	65	0	0	0
4703	0	0	19	0
4728	36	0	0	0
5203	15	0	0	0
5283	0	0	0	5
5304	0	0	0	36
5418	0	0	0	39
6243	0	0	21	0
11048	21	0	0	0
15002	0	21	0	0
16168	0	0	0	35

Mon Apr 06 2026 09:37:35 GMT-0400 (Eastern Daylight Time) - Run Time: 3082ms

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of origin - tts22_orig
Column: 2022 TTS zone of destination - tts22_dest

Filters:
2022 TTS z: 4663 4409 4412 4414
and
Start time of trip - start_time In 1530-1830
and
2022 Trip p: 45

Trip 2022
Table:

	4400	4409	4412	4414	4663
1051	0	0	0	0	8
1068	0	0	29	0	0
1137	0	0	0	0	18
1399	0	0	40	0	0
3070	0	0	28	0	0
3119	0	0	0	0	32
3133	0	36	0	0	0
3272	0	0	29	0	0
3296	0	0	0	16	0
4117	0	0	0	9	0
4355	0	0	0	0	39
4375	0	0	79	0	0
4396	0	0	29	0	78
4400	0	0	21	0	0
4401	0	10	0	0	0
4404	10	0	0	0	0
4408	0	0	28	0	0
4409	0	0	30	0	0
4414	0	0	91	0	0
4462	0	0	9	0	0
4465	0	0	0	21	0
4501	0	0	10	0	0
4504	0	0	0	0	41
4527	0	0	0	40	0
4537	0	29	0	0	0
4558	0	0	0	0	48
4609	0	0	95	0	0
4651	0	10	181	0	0
4656	0	0	3	0	0
4657	0	0	0	21	0
4662	0	0	59	0	0
4664	0	0	0	7	0
4682	0	0	0	14	0
4683	0	30	48	0	35
4719	0	0	0	0	34
5196	0	0	15	0	0
5203	0	15	0	0	0
5293	0	0	45	0	0
5304	0	0	0	0	36
5307	0	41	0	0	0
11048	0	21	0	0	0
14046	0	86	0	0	0
16168	0	0	0	0	35

Cross Tabulation Query Form - Trip - 2022

Row: 2022 TTS zone of destination - tts22_dest
Column: 2022 TTS zone of origin - tts22_orig

Filters:

2022 TTS : 4663 4409 4412 4414

and

Start time of trip - start_time In 1530-1830

and

2022 Trip F 45

Trip 2022

Table:

	4400	4409	4412	4414	4663
1081	0	0	6	0	0
1325	0	0	0	0	28
1343	0	0	0	13	0
1579	0	0	3	0	0
4395	0	87	0	0	0
4396	0	0	0	0	39
4409	0	0	30	0	0
4411	0	0	21	0	0
4476	0	43	0	0	0
4546	0	41	0	0	0
4646	0	0	40	0	0
4651	0	0	45	0	0
4662	0	25	0	0	0
4664	0	0	0	15	0
4672	0	0	5	0	0
4683	0	0	82	0	41
4703	0	14	0	0	0
4704	17	0	0	0	0
4734	0	0	62	0	0
5092	62	0	0	0	0
5307	0	41	0	0	0

Mon Apr 06 2026 09:17:00 GMT-0400 (Eastern Daylight Time) - Run Time: 3172ms

Cross Tabulation Query Form - Trip - 2022

Row: Primary travel mode of trip - mode_prime

Column: 2022 TTS zone of destination - tts22_dest

Filters:

2022 TTS zor 4663 4409 4412 4414

and

Start time of trip - start_time In 630-930

and

2022 Trip purj 80

and

Type of dwelli 2 3

Trip 2022

Table:

	4400	4412	4414
Auto driver	22	55	21
Auto passeng	0	45	0
Walk	0	0	77

Mon Apr 06 2026 09:22:00 GMT-0400 (Eastern Daylight Time) - Run Time: 3292ms

Cross Tabulation Query Form - Trip - 2022

Row: Primary travel mode of trip - mode_prime

Column: 2022 TTS zone of origin - tts22_orig

Filters:

2022 TTS zone of origin - tts22 4663 4409 4412 4414

and

Start time of trip - start_time In 630-930

and

2022 Trip Purpose of Origin - p 80

and

Type of dwelling unit - dwell_ty 2 3

Trip 2022

Table:

	4409	4412	4414	4663
Transit excluding GO rail	15	0	21	80
Auto driver	142	304	49	387
GO rail only	0	0	0	35
Joint GO rail and local transit	0	0	0	39
Auto passenger	44	237	21	35
School bus	0	0	0	96
Walk	58	56	77	0

Mon Apr 06 2026 09:19:51 GMT-0400 (Eastern Daylight Time) - Run Time: 3243ms

Cross Tabulation Query Form - Trip - 2022

Row: Primary travel mode of trip - mode_prime

Column: 2022 TTS zone of destination - tts22_dest

Filters:

2022 TTS zone of destination - 4663 4409 4412 4414

and

Start time of trip - start_time In 1530-1830

and

2022 Trip purpose of destination 80

and

Type of dwelling unit - dwell_type 2 3

Trip 2022

Table:

	4400	4409	4412	4414	4663
Transit excluding GO rail	0	15	3	0	0
Auto driver	10	200	484	106	318
Joint GO rail and local transit	0	0	29	0	47
Auto passenger	0	63	175	21	39
Walk	0	0	177	0	0

Mon Apr 06 2026 09:21:06 GMT-0400 (Eastern Daylight Time) - Run Time: 3028ms

Cross Tabulation Query Form - Trip - 2022

Row: Primary travel mode of trip - mode_prime

Column: 2022 TTS zone of origin - tts22_orig

Filters:

2022 TTS zone of origin - tts: 4663 4409 4412 4414

and

Start time of trip - start_time In 1530-1830

and

2022 Trip Purpose of Origin · 80

and

Type of dwelling unit - dwell_ 2 3

Trip 2022

Table:

	4400	4409	4412	4414	4663
Auto driver	80	145	209	28	67
Joint GO rail and local transit	0	0	3	0	0
Auto passenger	0	106	51	0	0
Walk	0	0	30	0	41

APPENDIX



Signal Warrant Analysis



TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)

GENERAL INFORMATION

Leanne Blvd & N Sheridan Way

Analyst	Kian	Jurisdiction	Peel Region
Agency or Company	WSP Canada Inc.	Date	June 6, 2026
Analysis Period	2031 Future Total Conditions	East-West Street	Leanne Blvd
		North-South Street	N Sheridan Way
Flow Conditions	Restricted flow (urban) ▼	Major Street	East-West ▼
'T' Intersection	No ▼	Approach lanes per direction	1 ▼ Major Street
Existing Intersection	Yes ▼	Approach lanes per direction	2 ▼ Minor Street
Additional Comments			

TRAFFIC & PEDESTRIAN VOLUMES

Hour Ending	Main Road Approaches							Minor Road Approaches							Pedestrian Crossing Major Road	Pedestrian Crossing Minor Road
	Eastbound			Westbound			Total	Northbound			Southbound			Total		
	LT	TH	RT	LT	TH	RT		LT	TH	RT	LT	TH	RT			
AM Peak Hour	86	273	0	11	566	23	959	1	0	2	49	3	203	258	5	5
PM Peak Hour	313	539	4	6	190	80	1132	1	6	5	31	1	59	103	5	5
Total	399	812	4	17	756	103	2091	2	6	7	80	4	262	361	10	10

Parameter	AM	PM	Average Hourly Volume (AHV)
Vehicle volume, all approaches	1217	1235	613
Vehicle volume, along minor street	258	103	90
Vehicle volume, along major street	959	1132	523
Combined vehicle and pedestrian volume crossing from minor streets	58	43	25

NOTES

1. The traffic control signal justification was done as per criteria defined in Ontario Traffic Manual, Book: 12 (March 2012) Justification 7 - Projected Volumes.

2. Traffic crossing MAJOR street defined as:

- a. Left turns from both minor street approaches
- b. The heaviest through volume from the minor street
- c. 50% of the heavier left turn movement from the major street when both of the following are met:
 1. the left turn volume > 120
 2. the left turn volume + opposing volume > 720
- d. Pedestrians crossing the major street

	AM	PM
a.	50	32
b.	3	6
c.	0	0
1.	No	Yes
2.	No	No
d.	5	5

3. Justifications 1 and 2 are required to be met to 120% in the case of an existing intersection and 150% in the case of a new intersection

4. For 'T' intersection, the threshold values to be increased by 50%

TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)

GENERAL INFORMATION

Leanne Blvd & N Sheridan Way

Analyst	Kian	Leanne Blvd & N Sheridan Way	Peel Region
Agency or Company	WSP Canada Inc.	Date	June 6, 2026
Analysis Period	2031 Future Total Condi	East-West Street	Leanne Blvd
Flow Conditions	Restricted flow (urban)	North-South Street	N Sheridan Way
'T' Intersection	No	Major Street	East-West
Existing Intersection	Yes	Approach lanes per direction	1
		Approach lanes per direction	2
			Major Street
			Minor Street
Additional Comments			

Justification 1: Minimum Vehicle Volumes

JUSTIFIED

No

Justification	Guidance Approach Lanes				Compliance			120% Satisfied
	1 Lanes		2 or More Lanes		Sectional		Entire %	
Flow Conditions	Free Flow	Restricted Flow	Free Flow	Restricted Flow	Average Hourly Volumes	%		
A. Vehicle volume, all approaches		720			613	85%	85%	No
B. Vehicle volume, along minor streets		170			90	53%	53%	No

Justification 2: Delay To Cross Traffic

JUSTIFIED

No

Justification	Guidance Approach Lanes				Compliance			120% Satisfied
	1 Lanes		2 or More Lanes ¹		Sectional		Entire %	
Flow Conditions	Free Flow	Restricted Flow	Free Flow	Restricted Flow	Average Hourly Volumes	%		
A. Vehicle volume, major street		720			523	73%	73%	No
B. Combined vehicle and pedestrian volume crossing artery from minor streets		75			25	34%	34%	No

CONCLUSION

The results of the calculations show that justifications are **not met**.

Therefore traffic control signal is **not justified at this intersection for the horizon year 2031 Future Total**

Note: 1. The minimum volumes were corrected from 120 vehicles and 170 vehicles in OTM, March 2012 to 50 vehicles and 70 vehicles to match Justification 2B.

TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)

GENERAL INFORMATION

Leanne Blvd & N Sheridan Way

Analyst	Kian	Jurisdiction	Peel Region
Agency or Company	WSP Canada Inc.	Date	June 6, 2026
Analysis Period	2036 Future Total Conditions	East-West Street	Leanne Blvd
Flow Conditions	Restricted flow (urban) ▼	North-South Street	N Sheridan Way
'T' Intersection	No ▼	Major Street	East-West ▼
Existing Intersection	Yes ▼	Approach lanes per direction	1 ▼ Major Street
Additional Comments		Approach lanes per direction	2 ▼ Minor Street

TRAFFIC & PEDESTRIAN VOLUMES

Hour Ending	Main Road Approaches							Minor Road Approaches							Pedestrian Crossing Major Road	Pedestrian Crossing Minor Road		
	Eastbound			Westbound				Total	Northbound			Southbound					Total	
	LT	TH	RT	LT	TH	RT	LT		TH	RT	LT	TH	RT					
AM Peak Hour	89	294	0	11	609	24	1027	1	0	2	50	3	208	264	5	5		
PM Peak Hour	321	566	4	6	200	82	1179	1	6	5	32	1	61	106	5	5		
Total	410	860	4	17	809	106	2206	2	6	7	82	4	269	370	10	10		

Parameter	AM	PM	Average Hourly Volume (AHV)
Vehicle volume, all approaches	1291	1285	644
Vehicle volume, along minor street	264	106	93
Vehicle volume, along major street	1027	1179	552
Combined vehicle and pedestrian volume crossing from minor streets	59	44	26

NOTES

1. The traffic control signal justification was done as per criteria defined in Ontario Traffic Manual, Book: 12 (March 2012) Justification 7 - Projected Volumes.

2. Traffic crossing MAJOR street defined as:

- a. Left turns from both minor street approaches
- b. The heaviest through volume from the minor street
- c. 50% of the heavier left turn movement from the major street when both of the following are met:
 1. the left turn volume > 120
 2. the left turn volume + opposing volume > 720
- d. Pedestrians crossing the major street

	AM	PM
a.	51	33
b.	3	6
c.	0	0
1.	No	Yes
2.	No	No
d.	5	5

3. Justifications 1 and 2 are required to be met to 120% in the case of an existing intersection and 150% in the case of a new intersection

4. For 'T' intersection, the threshold values to be increased by 50%

TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)

GENERAL INFORMATION

Leanne Blvd & N Sheridan Way

Analyst	Kian	Leanne Blvd & N Sheridan Way	Peel Region
Agency or Company	WSP Canada Inc.	Date	June 6, 2026
Analysis Period	2036 Future Total Condi	East-West Street	Leanne Blvd
Flow Conditions	Restricted flow (urban)	North-South Street	N Sheridan Way
'T' Intersection	No	Major Street	East-West
Existing Intersection	Yes	Approach lanes per direction	1
		Approach lanes per direction	2
			Major Street
			Minor Street
Additional Comments			

Justification 1: Minimum Vehicle Volumes

JUSTIFIED

No

Justification	Guidance Approach Lanes				Compliance			120% Satisfied
	1 Lanes		2 or More Lanes		Sectional		Entire %	
Flow Conditions	Free Flow	Restricted Flow	Free Flow	Restricted Flow	Average Hourly Volumes	%		
A. Vehicle volume, all approaches		720			644	89%	89%	No
B. Vehicle volume, along minor streets		170			93	54%	54%	No

Justification 2: Delay To Cross Traffic

JUSTIFIED

No

Justification	Guidance Approach Lanes				Compliance			120% Satisfied
	1 Lanes		2 or More Lanes ¹		Sectional		Entire %	
Flow Conditions	Free Flow	Restricted Flow	Free Flow	Restricted Flow	Average Hourly Volumes	%		
A. Vehicle volume, major street		720			552	77%	77%	No
B. Combined vehicle and pedestrian volume crossing artery from minor streets		75			26	34%	34%	No

CONCLUSION

The results of the calculations show that justifications are **not met**.

Therefore traffic control signal is **not justified at this intersection for the horizon year 2036 Future Total**

Note: 1. The minimum volumes were corrected from 120 vehicles and 170 vehicles in OTM, March 2012 to 50 vehicles and 70 vehicles to match Justification 2B.

TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)

GENERAL INFORMATION

Leanne Blvd & N Sheridan Way

Analyst	Kian	Jurisdiction	Peel Region
Agency or Company	WSP Canada Inc.	Date	June 6, 2026
Analysis Period	2041 Future Total Conditions	East-West Street	Leanne Blvd
		North-South Street	N Sheridan Way
Flow Conditions	Restricted flow (urban) ▼	Major Street	East-West ▼
'T' Intersection	No ▼	Approach lanes per direction	1 ▼ Major Street
Existing Intersection	Yes ▼	Approach lanes per direction	2 ▼ Minor Street
Additional Comments			

TRAFFIC & PEDESTRIAN VOLUMES

Hour Ending	Main Road Approaches							Minor Road Approaches							Pedestrian Crossing Major Road	Pedestrian Crossing Minor Road
	Eastbound			Westbound			Total	Northbound			Southbound			Total		
	LT	TH	RT	LT	TH	RT		LT	TH	RT	LT	TH	RT			
AM Peak Hour	91	314	0	11	651	25	1092	1	0	2	51	3	213	270	5	5
PM Peak Hour	329	593	4	6	209	84	1225	1	6	5	33	1	62	108	5	5
Total	420	907	4	17	860	109	2317	2	6	7	84	4	275	378	10	10

Parameter	AM	PM	Average Hourly Volume (AHV)
Vehicle volume, all approaches	1362	1333	674
Vehicle volume, along minor street	270	108	95
Vehicle volume, along major street	1092	1225	579
Combined vehicle and pedestrian volume crossing from minor streets	60	45	26

NOTES

1. The traffic control signal justification was done as per criteria defined in Ontario Traffic Manual, Book: 12 (March 2012) Justification 7 - Projected Volumes.

2. Traffic crossing MAJOR street defined as:

- a. Left turns from both minor street approaches
- b. The heaviest through volume from the minor street
- c. 50% of the heavier left turn movement from the major street when both of the following are met:
 1. the left turn volume > 120
 2. the left turn volume + opposing volume > 720
- d. Pedestrians crossing the major street

	AM	PM
a.	52	34
b.	3	6
c.	0	0
1.	No	Yes
2.	Yes	No
d.	5	5

3. Justifications 1 and 2 are required to be met to 120% in the case of an existing intersection and 150% in the case of a new intersection

4. For 'T' intersection, the threshold values to be increased by 50%

TRAFFIC SIGNAL WARRANTS - JUSTIFICATION 7 (PROJECTED VOLUMES)

GENERAL INFORMATION

Leanne Blvd & N Sheridan Way

Analyst	Kian	Leanne Blvd & N Sheridan Way	Peel Region
Agency or Company	WSP Canada Inc.	Date	June 6, 2026
Analysis Period	2041 Future Total Condi	East-West Street	Leanne Blvd
Flow Conditions	Restricted flow (urban)	North-South Street	N Sheridan Way
'T' Intersection	No	Major Street	East-West
Existing Intersection	Yes	Approach lanes per direction	1
		Approach lanes per direction	2
			Major Street
			Minor Street
Additional Comments			

Justification 1: Minimum Vehicle Volumes

JUSTIFIED

No

Justification	Guidance Approach Lanes				Compliance			120% Satisfied
	1 Lanes		2 or More Lanes		Sectional		Entire %	
Flow Conditions	Free Flow	Restricted Flow	Free Flow	Restricted Flow	Average Hourly Volumes	%		
A. Vehicle volume, all approaches		720			674	94%	94%	No
B. Vehicle volume, along minor streets		170			95	56%	56%	No

Justification 2: Delay To Cross Traffic

JUSTIFIED

No

Justification	Guidance Approach Lanes				Compliance			120% Satisfied
	1 Lanes		2 or More Lanes ¹		Sectional		Entire %	
Flow Conditions	Free Flow	Restricted Flow	Free Flow	Restricted Flow	Average Hourly Volumes	%		
A. Vehicle volume, major street		720			579	80%	80%	No
B. Combined vehicle and pedestrian volume crossing artery from minor streets		75			26	35%	35%	No

CONCLUSION

The results of the calculations show that justifications are not met.

Therefore traffic control signal is not justified at this intersection for the horizon year 2041 Future Total

Note: 1. The minimum volumes were corrected from 120 vehicles and 170 vehicles in OTM, March 2012 to 50 vehicles and 70 vehicles to match Justification 2B.

APPENDIX

J Future Total Synchro Reports



Timings
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2031 AM
 04/17/2026

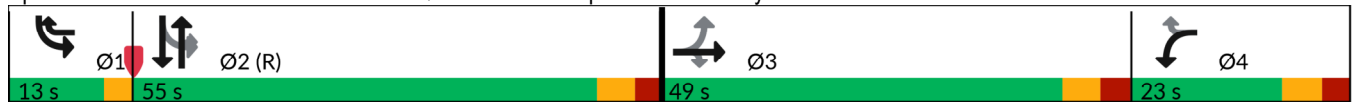


Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	322	95	126	32	350	1309	8	184	1415
Future Volume (vph)	322	95	126	32	350	1309	8	184	1415
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	23.0	13.0	55.0	55.0	13.0	55.0
Total Split (%)	35.0%	35.0%	35.0%	16.4%	9.3%	39.3%	39.3%	9.3%	39.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	23.9	23.9	23.9	10.3	32.8	66.8	66.8	92.7	66.8
Actuated g/C Ratio	0.17	0.17	0.17	0.07	0.23	0.48	0.48	0.66	0.48
v/c Ratio	0.76	0.75	0.36	0.28	0.82	0.60	0.01	0.52	0.64
Control Delay (s/veh)	72.0	70.1	9.7	67.3	49.4	30.6	0.0	42.3	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.0	70.1	9.7	67.3	49.4	30.6	0.0	42.3	16.5
LOS	E	E	A	E	D	C	A	D	B
Approach Delay (s/veh)		56.8				30.4			19.4
Approach LOS		E				C			B

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 14 (10%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 31.6 Intersection LOS: C
 Intersection Capacity Utilization 73.5% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues

FT_2031 AM

1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	221	227	135	34	376	1408	9	198	1522
v/c Ratio	0.76	0.75	0.36	0.28	0.82	0.60	0.01	0.52	0.64
Control Delay (s/veh)	72.0	70.1	9.7	67.3	49.4	30.6	0.0	42.3	16.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	72.0	70.1	9.7	67.3	49.4	30.6	0.0	42.3	16.5
Queue Length 50th (m)	65.5	67.1	0.0	9.6	72.6	113.5	0.0	24.3	108.5
Queue Length 95th (m)	90.4	92.0	17.5	21.4	106.3	157.6	0.0	m54.5	186.5
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	532	564	190	457	2339	785	382	2361
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.43	0.24	0.18	0.82	0.60	0.01	0.52	0.64

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

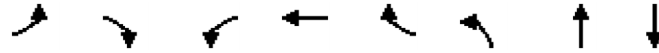
HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2031 AM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	322	95	126	32	0	350	0	1309	8	184	1415	0
Future Volume (vph)	322	95	126	32	0	350	0	1309	8	184	1415	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1776	1566	1668		1581		4902	1526	1750	4948	
Flt Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.11	1.00	
Satd. Flow (perm)	1696	1776	1566	1668		1581		4902	1526	206	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	346	102	135	34	0	376	0	1408	9	198	1522	0
RTOR Reduction (vph)	0	0	112	0	0	91	0	0	5	0	0	0
Lane Group Flow (vph)	221	227	23	34	0	285	0	1408	4	198	1522	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	23.9	23.9	23.9	6.3		28.6		64.0	64.0	86.3	64.0	
Effective Green, g (s)	23.9	23.9	23.9	6.3		28.6		64.0	64.0	86.3	64.0	
Actuated g/C Ratio	0.17	0.17	0.17	0.05		0.20		0.46	0.46	0.62	0.46	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	289	303	267	75		322		2240	697	372	2261	
v/s Ratio Prot				0.02		c0.14		0.29		0.08	c0.31	
v/s Ratio Perm	c0.13	0.13	0.01			0.04			0.00	0.24		
v/c Ratio	0.76	0.75	0.09	0.45		0.89		0.63	0.01	0.53	0.67	
Uniform Delay, d1	55.4	55.2	48.9	65.2		54.1		28.9	20.7	16.8	29.8	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	2.36	0.51	
Incremental Delay, d2	11.4	9.7	0.1	4.3		23.9		1.3	0.0	1.0	1.1	
Delay (s)	66.8	64.9	49.0	69.5		78.1		30.3	20.7	40.7	16.2	
Level of Service	E	E	D	E		E		C	C	D	B	
Approach Delay (s/veh)		61.9			77.3			30.2			19.0	
Approach LOS		E			E			C			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			34.7									C
HCM 2000 Volume to Capacity ratio			0.74									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			73.5%									D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2031 AM
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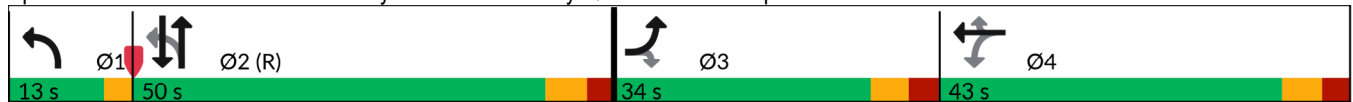


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	26	127	356	262	343	112	1304	1803
Future Volume (vph)	26	127	356	262	343	112	1304	1803
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.1	9.1	36.9	36.9	36.9	74.0	59.7	59.7
Actuated g/C Ratio	0.07	0.07	0.26	0.26	0.26	0.53	0.43	0.43
v/c Ratio	0.24	0.59	0.82	0.74	0.55	0.65	0.65	0.74
Control Delay (s/veh)	66.6	20.7	64.1	56.4	6.7	45.6	43.9	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.6	20.7	64.1	56.4	6.7	45.6	43.9	37.4
LOS	E	C	E	E	A	D	D	D
Approach Delay (s/veh)				41.1			44.1	37.4
Approach LOS				D			D	D

Intersection Summary

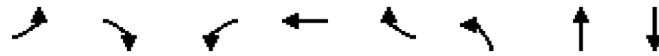
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 105
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay (s/veh): 40.1 Intersection LOS: D
 Intersection Capacity Utilization 72.8% ICU Level of Service C
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	28	135	322	336	365	119	1387	1997
v/c Ratio	0.24	0.59	0.82	0.74	0.55	0.65	0.65	0.74
Control Delay (s/veh)	66.6	20.7	64.1	56.4	6.7	45.6	43.9	37.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.6	20.7	64.1	56.4	6.7	45.6	43.9	37.4
Queue Length 50th (m)	8.0	0.0	92.4	94.1	0.0	23.9	123.2	97.4
Queue Length 95th (m)	18.2	20.9	120.4	119.8	23.2	m47.5	171.2	#198.4
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	410	424	489	682	195	2149	2692
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.33	0.76	0.69	0.54	0.61	0.65	0.74

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑		
Traffic Volume (vph)	26	0	127	356	262	343	112	1304	0	0	1803	74	
Future Volume (vph)	26	0	127	356	262	343	112	1304	0	0	1803	74	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7	
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0		
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86		
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00		
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00		
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99		
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00		
Satd. Flow (prot)	1785		1566	1501	1729	1486	1750	5043			6308		
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.07	1.00			1.00		
Satd. Flow (perm)	1785		1566	1501	1729	1486	123	5043			6308		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	28	0	135	379	279	365	119	1387	0	0	1918	79	
RTOR Reduction (vph)	0	0	126	0	0	269	0	0	0	0	3	0	
Lane Group Flow (vph)	28	0	9	322	336	96	119	1387	0	0	1994	0	
Confl. Peds. (#/hr)	2					2	19		11	11		19	
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%	
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA		
Protected Phases	3			4	4		1	2			2		
Permitted Phases			3	4		4	2						
Actuated Green, G (s)	9.1		9.1	36.9	36.9	36.9	70.0	59.7			59.7		
Effective Green, g (s)	9.1		9.1	36.9	36.9	36.9	70.0	59.7			59.7		
Actuated g/C Ratio	0.07		0.07	0.26	0.26	0.26	0.50	0.43			0.43		
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0		
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0		
Lane Grp Cap (vph)	116		101	395	455	391	181	2150			2689		
v/s Ratio Prot	c0.02						c0.05	0.28			c0.32		
v/s Ratio Perm			0.01	c0.21	0.19	0.06	0.28						
v/c Ratio	0.24		0.09	0.82	0.74	0.25	0.66	0.65			0.74		
Uniform Delay, d1	62.2		61.5	48.4	47.1	40.6	25.2	31.8			33.7		
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.28	1.27			1.02		
Incremental Delay, d2	1.1		0.4	12.2	6.2	0.3	6.7	1.2			1.7		
Delay (s)	63.3		61.9	60.6	53.3	40.9	38.9	41.4			35.9		
Level of Service	E		E	E	D	D	D	D			D		
Approach Delay (s/veh)		62.1			51.2			41.2			35.9		
Approach LOS		E			D			D			D		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			41.8		HCM 2000 Level of Service						D		
HCM 2000 Volume to Capacity ratio			0.72										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)					24.0			
Intersection Capacity Utilization			72.8%		ICU Level of Service					C			
Analysis Period (min)			15										
c Critical Lane Group													

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	65	75	209	86	112	47	1678	142	65	1633	129
Future Volume (vph)	98	65	75	209	86	112	47	1678	142	65	1633	129
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.0	29.0	29.0	29.0	29.0	29.0	96.9	87.1	87.1	97.8	87.6	87.6
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.69	0.62	0.62	0.70	0.63	0.63
v/c Ratio	0.42	0.18	0.21	0.81	0.25	0.30	0.24	0.55	0.17	0.35	0.54	0.14
Control Delay (s/veh)	51.7	44.1	9.3	74.8	45.9	8.5	8.2	10.0	0.7	12.6	17.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.7	44.1	9.3	74.8	45.9	8.5	8.2	10.0	0.7	12.6	17.1	5.1
LOS	D	D	A	E	D	A	A	B	A	B	B	A
Approach Delay (s/veh)		36.3			50.4			9.3			16.1	
Approach LOS		D			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 17.5 Intersection LOS: B
 Intersection Capacity Utilization 85.9% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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
























Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	102	68	78	218	90	117	49	1748	148	68	1701	134
v/c Ratio	0.42	0.18	0.21	0.81	0.25	0.30	0.24	0.55	0.17	0.35	0.54	0.14
Control Delay (s/veh)	51.7	44.1	9.3	74.8	45.9	8.5	8.2	10.0	0.7	12.6	17.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.7	44.1	9.3	74.8	45.9	8.5	8.2	10.0	0.7	12.6	17.1	5.1
Queue Length 50th (m)	26.1	16.5	0.0	61.2	22.2	0.0	1.2	150.7	0.0	5.4	100.3	4.2
Queue Length 95th (m)	40.9	27.7	12.9	84.4	35.0	15.2	m2.6	197.2	0.1	13.2	141.6	16.1
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	340	528	486	377	504	509	239	3169	856	217	3156	989
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.13	0.16	0.58	0.18	0.23	0.21	0.55	0.17	0.31	0.54	0.14

Intersection Summary
 m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	65	75	209	86	112	47	1678	142	65	1633	129
Future Volume (vph)	98	65	75	209	86	112	47	1678	142	65	1633	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frbp, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1586	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524
Flt Permitted	0.70	1.00	1.00	0.71	1.00	1.00	0.10	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1166	1812	1481	1294	1731	1463	182	5092	1322	157	5043	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	102	68	78	218	90	117	49	1748	148	68	1701	134
RTOR Reduction (vph)	0	0	62	0	0	93	0	0	34	0	0	36
Lane Group Flow (vph)	102	68	16	218	90	24	49	1748	114	68	1701	98
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.5	86.6	86.6	93.5	87.1	87.1
Effective Green, g (s)	29.0	29.0	29.0	29.0	29.0	29.0	92.5	86.6	86.6	93.5	87.1	87.1
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.62	0.62	0.67	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	241	375	306	268	358	303	185	3149	817	172	3137	948
v/s Ratio Prot		0.04			0.05		0.01	c0.34		c0.02	0.34	
v/s Ratio Perm	0.09		0.01	c0.17		0.02	0.16		0.09	0.24		0.06
v/c Ratio	0.42	0.18	0.05	0.81	0.25	0.08	0.26	0.56	0.14	0.40	0.54	0.10
Uniform Delay, d1	48.2	45.7	44.5	52.9	46.4	44.7	10.2	15.5	11.2	10.9	15.1	10.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.77	0.55	0.05	1.00	1.00	1.00
Incremental Delay, d2	1.2	0.2	0.1	17.0	0.4	0.1	0.7	0.6	0.3	1.5	0.7	0.2
Delay (s)	49.4	46.0	44.6	69.9	46.8	44.9	8.5	9.2	0.8	12.4	15.8	10.9
Level of Service	D	D	D	E	D	D	A	A	A	B	B	B
Approach Delay (s/veh)		46.9			58.1			8.5			15.3	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			18.2								HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	18.0
Intersection Capacity Utilization			85.9%								ICU Level of Service	E
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FT_2031 AM
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	86	273	0	11	566	23	1	0	2	49	3	203
Future Volume (Veh/h)	86	273	0	11	566	23	1	0	2	49	3	203
Sign Control		Free			Free			Stop			Stop	
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)	96	303	0	12	629	26	1	0	2	54	3	226
Pedestrians												1
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.82						0.82	0.82		0.82	0.82	0.82
vC, conflicting volume	656			303			1376	1175	303	1164	1162	643
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	465			303			1347	1101	303	1088	1085	449
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	89			99			98	100	100	62	98	55
cM capacity (veh/h)	893			1269			52	153	741	140	157	497
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	96	303	12	655	3	54	229					
Volume Left	96	0	12	0	1	54	0					
Volume Right	0	0	0	26	2	0	226					
cSH	893	1700	1269	1700	136	140	483					
Volume to Capacity	0.11	0.18	0.01	0.39	0.02	0.38	0.47					
Queue Length 95th (m)	2.9	0.0	0.2	0.0	0.5	13.0	20.0					
Control Delay (s/veh)	9.5	0.0	7.9	0.0	32.1	45.8	19.0					
Lane LOS	A		A		D	E	C					
Approach Delay (s/veh)	2.3		0.1		32.1	24.1						
Approach LOS					D	C						
Intersection Summary												
Average Delay			5.9									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

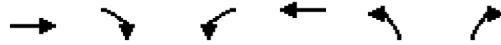
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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations		↗		↑↑↑	↑↑↑	↗		
Traffic Volume (veh/h)	0	6	0	1868	1940	5		
Future Volume (Veh/h)	0	6	0	1868	1940	5		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly flow rate (vph)	0	6	0	2009	2086	5		
Pedestrians	1							
Lane Width (m)	3.6							
Walking Speed (m/s)	1.2							
Percent Blockage	0							
Right turn flare (veh)								
Median type				None	None			
Median storage veh								
Upstream signal (m)				113	172			
pX, platoon unblocked	0.88	0.81	0.81					
vC, conflicting volume	2757	696	2092					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	1039	0	1516					
tC, single (s)	6.8	6.9	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	99	100					
cM capacity (veh/h)	199	874	352					
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	6	670	670	670	695	695	695	5
Volume Left	0	0	0	0	0	0	0	0
Volume Right	6	0	0	0	0	0	0	5
cSH	874	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.39	0.39	0.39	0.41	0.41	0.41	0.00
Queue Length 95th (m)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s/veh)	9.1	0.0	0.0					
Approach LOS	A							
Intersection Summary								
Average Delay			0.0					
Intersection Capacity Utilization			47.5%			ICU Level of Service		A
Analysis Period (min)			15					

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access 1 & Leanne Blvd












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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘↘	
Traffic Volume (veh/h)	195	1	11	275	4	42
Future Volume (Veh/h)	195	1	11	275	4	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	229	1	13	324	5	49
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			233		421	118
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			233		421	118
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	95
cM capacity (veh/h)			1343		554	916
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	153	77	121	216	54	
Volume Left	0	0	13	0	5	
Volume Right	0	1	0	0	49	
cSH	1700	1700	1343	1700	864	
Volume to Capacity	0.09	0.05	0.01	0.13	0.06	
Queue Length 95th (m)	0.0	0.0	0.2	0.0	1.6	
Control Delay (s/veh)	0.0	0.0	0.9	0.0	9.4	
Lane LOS			A			A
Approach Delay (s/veh)	0.0	0.3				9.4
Approach LOS					A	
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			25.6%	ICU Level of Service		A
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & Site Access 5

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	3	4	120	1	1	260
Future Volume (Veh/h)	3	4	120	1	1	260
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	4	5	143	1	1	310
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None		None	
Median storage veh						
Upstream signal (m)	293					
pX, platoon unblocked						
vC, conflicting volume	303	74			146	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	303	74			146	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	669	977			1431	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	95	49	104	207	
Volume Left	4	0	0	1	0	
Volume Right	5	0	1	0	0	
cSH	811	1700	1700	1431	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.5	0.0	0.0	0.1	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.5	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			17.9%		ICU Level of Service	A
Analysis Period (min)	15					












HCM Unsignalized Intersection Capacity Analysis
 104: Leanne Blvd & Site Access 2

FT_2031 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	3	4	134	1	1	250
Future Volume (Veh/h)	3	4	134	1	1	250
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	4	5	160	1	1	298
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						188
pX, platoon unblocked						
vC, conflicting volume	312	81			161	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	312	81			161	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	656	963			1416	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	107	54	100	199	
Volume Left	4	0	0	1	0	
Volume Right	5	0	1	0	0	
cSH	797	1700	1700	1416	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.1	0.0	
Lane LOS	A			A		
Approach Delay (s/veh)	9.6	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			17.6%	ICU Level of Service	A	
Analysis Period (min)			15			










HCM Unsignalized Intersection Capacity Analysis
 105: Leanne Blvd & Site Access 3

FT_2031 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	4	5	130	1	2	251
Future Volume (Veh/h)	4	5	130	1	2	251
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	5	6	155	1	2	299
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						222
pX, platoon unblocked						
vC, conflicting volume	309	78			156	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	309	78			156	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	658	967			1422	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	11	103	53	102	199	
Volume Left	5	0	0	2	0	
Volume Right	6	0	1	0	0	
cSH	797	1700	1700	1422	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.2	0.0	
Lane LOS	A			A		
Approach Delay (s/veh)	9.6	0.0		0.1		
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			18.3%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 106: Leanne Blvd & Site Access 4

FT_2031 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	10	121	3	2	253
Future Volume (Veh/h)	8	10	121	3	2	253
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	10	12	144	4	2	301
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	254					
pX, platoon unblocked						
vC, conflicting volume	301	74			148	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	301	74			148	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			100	
cM capacity (veh/h)	666	973			1431	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	22	96	52	102	201	
Volume Left	10	0	0	2	0	
Volume Right	12	0	4	0	0	
cSH	804	1700	1700	1431	1700	
Volume to Capacity	0.03	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.7	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.2	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.6	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			18.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	673	279	118	23	357	1522	59	337	1467
Future Volume (vph)	673	279	118	23	357	1522	59	337	1467
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	46.0	46.0	46.0	25.0	22.0	47.0	47.0	22.0	47.0
Total Split (%)	32.9%	32.9%	32.9%	17.9%	15.7%	33.6%	33.6%	15.7%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.0	39.0	39.0	10.0	41.5	43.0	43.0	77.8	43.0
Actuated g/C Ratio	0.28	0.28	0.28	0.07	0.30	0.31	0.31	0.56	0.31
v/c Ratio	1.05	1.01	0.24	0.19	0.70	0.99	0.11	0.75	0.96
Control Delay (s/veh)	104.1	92.2	10.3	65.2	41.1	69.2	0.5	45.7	71.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	104.1	92.2	10.3	65.2	41.1	69.2	0.5	45.7	71.3
LOS	F	F	B	E	D	E	A	D	E
Approach Delay (s/veh)		88.4				66.7			66.5
Approach LOS		F				E			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.05
 Intersection Signal Delay (s/veh): 69.5 Intersection LOS: E
 Intersection Capacity Utilization 95.3% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues

FT_2031 PM

1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	481	491	120	23	364	1553	60	344	1497
v/c Ratio	1.05	1.01	0.24	0.19	0.70	0.99	0.11	0.75	0.96
Control Delay (s/veh)	104.1	92.2	10.3	65.2	41.1	69.2	0.5	45.7	71.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	104.1	92.2	10.3	65.2	41.1	69.2	0.5	45.7	71.3
Queue Length 50th (m)	~160.2	~152.6	3.2	6.4	72.1	~180.8	0.0	87.8	~173.0
Queue Length 95th (m)	#234.7	#231.4	19.0	16.3	109.7	#212.0	0.8	#133.5	#205.0
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	488	506	218	522	1563	554	461	1563
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.05	1.01	0.24	0.11	0.70	0.99	0.11	0.75	0.96

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.























Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

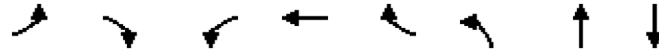
HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2031 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	673	279	118	23	0	357	0	1522	59	337	1467	0
Future Volume (vph)	673	279	118	23	0	357	0	1522	59	337	1467	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1755	1545	1700		1566		5092	1558	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1646	1755	1545	1700		1566		5092	1558	187	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	687	285	120	23	0	364	0	1553	60	344	1497	0
RTOR Reduction (vph)	0	0	76	0	0	60	0	0	43	0	0	0
Lane Group Flow (vph)	481	491	44	23	0	304	0	1553	17	344	1497	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	39.0	39.0	39.0	6.0		37.3		40.2	40.2	71.5	40.2	
Effective Green, g (s)	39.0	39.0	39.0	6.0		37.3		40.2	40.2	71.5	40.2	
Actuated g/C Ratio	0.28	0.28	0.28	0.04		0.27		0.29	0.29	0.51	0.29	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	458	488	430	72		417		1462	447	452	1462	
v/s Ratio Prot				0.01		c0.16		c0.30		c0.17	0.29	
v/s Ratio Perm	c0.29	0.28	0.03			0.03			0.01	0.22		
v/c Ratio	1.05	1.01	0.10	0.32		0.73		1.06	0.04	0.76	1.02	
Uniform Delay, d1	50.5	50.5	37.5	65.0		46.7		49.9	36.0	37.6	49.9	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.08	1.27	
Incremental Delay, d2	55.9	42.3	0.1	2.6		6.3		42.0	0.2	5.7	26.8	
Delay (s)	106.4	92.8	37.6	67.6		53.0		91.9	36.1	46.2	89.9	
Level of Service	F	F	D	E		D		F	D	D	F	
Approach Delay (s/veh)		92.7			53.9			89.8			81.8	
Approach LOS		F			D			F			F	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			84.6									F
HCM 2000 Volume to Capacity ratio			0.96									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			95.3%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2031 PM
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	132	286	392	70	395	87	1965	1684
Future Volume (vph)	132	286	392	70	395	87	1965	1684
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	33.0	33.0	43.0	43.0	43.0	11.0	53.0	53.0
Total Split (%)	23.6%	23.6%	30.7%	30.7%	30.7%	7.9%	37.9%	37.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	19.5	19.5	27.4	27.4	27.4	73.1	60.8	60.8
Actuated g/C Ratio	0.14	0.14	0.20	0.20	0.20	0.52	0.43	0.43
v/c Ratio	0.58	0.87	0.77	0.76	0.86	0.57	0.94	0.65
Control Delay (s/veh)	65.1	53.9	69.1	67.3	38.9	38.2	33.1	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.1	53.9	69.1	67.3	38.9	38.2	33.1	29.8
LOS	E	D	E	E	D	D	C	C
Approach Delay (s/veh)				54.7			33.3	29.8
Approach LOS				D			C	C

Intersection Summary

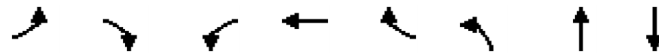
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay (s/veh): 37.8
 Intersection LOS: D
 Intersection Capacity Utilization 89.0%
 ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2031 PM
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	140	304	242	249	420	93	2090	1820
v/c Ratio	0.58	0.87	0.77	0.76	0.86	0.57	0.94	0.65
Control Delay (s/veh)	65.1	53.9	69.1	67.3	38.9	38.2	33.1	29.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	65.1	53.9	69.1	67.3	38.9	38.2	33.1	29.8
Queue Length 50th (m)	38.5	46.3	71.1	73.0	53.6	11.3	216.9	87.8
Queue Length 95th (m)	58.9	79.6	97.1	98.9	92.2	m11.9m#	279.3	119.0
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	321	417	411	431	569	167	2232	2807
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.44	0.73	0.59	0.58	0.74	0.56	0.94	0.65

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2031 PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	132	0	286	392	70	395	87	1965	0	0	1684	27
Future Volume (vph)	132	0	286	392	70	395	87	1965	0	0	1684	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1514	1767	5142			6462	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.07	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1514	122	5142			6462	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	140	0	304	417	74	420	93	2090	0	0	1791	29
RTOR Reduction (vph)	0	0	127	0	0	195	0	0	0	0	1	0
Lane Group Flow (vph)	140	0	177	242	249	225	93	2090	0	0	1819	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	19.5		19.5	27.4	27.4	27.4	69.1	60.8			60.8	
Effective Green, g (s)	19.5		19.5	27.4	27.4	27.4	69.1	60.8			60.8	
Actuated g/C Ratio	0.14		0.14	0.20	0.20	0.20	0.49	0.43			0.43	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	241		222	313	328	296	157	2233			2806	
v/s Ratio Prot	0.08						c0.03	c0.41			0.28	
v/s Ratio Perm			c0.11	c0.15	0.15	0.15	0.26					
v/c Ratio	0.58		0.80	0.77	0.76	0.76	0.59	0.94			0.65	
Uniform Delay, d1	56.4		58.3	53.4	53.2	53.2	23.2	37.7			31.2	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.51	0.73			0.85	
Incremental Delay, d2	3.5		17.6	11.3	9.7	10.6	1.8	3.2			1.1	
Delay (s)	60.0		76.0	64.6	62.9	63.8	36.9	30.8			27.7	
Level of Service	E		E	E	E	E	D	C			C	
Approach Delay (s/veh)		70.9			63.8			31.1			27.7	
Approach LOS		E			E			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			38.8									D
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			140.0							24.0		
Intersection Capacity Utilization			89.0%									E
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

FT_2031 PM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	144	56	163	48	87	126	1984	240	88	1128	82
Future Volume (vph)	125	144	56	163	48	87	126	1984	240	88	1128	82
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.2	26.2	26.2	26.2	26.2	26.2	99.8	87.0	87.0	99.4	86.9	86.9
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.71	0.62	0.62	0.71	0.62	0.62
v/c Ratio	0.56	0.44	0.18	0.85	0.14	0.26	0.38	0.65	0.26	0.53	0.37	0.09
Control Delay (s/veh)	59.2	52.7	10.9	87.9	45.3	9.7	6.6	7.7	0.6	27.0	14.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.2	52.7	10.9	87.9	45.3	9.7	6.6	7.7	0.6	27.0	14.6	3.2
LOS	E	D	B	F	D	A	A	A	A	C	B	A
Approach Delay (s/veh)		48.0			58.2			6.9			14.7	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay (s/veh): 16.0 Intersection LOS: B
 Intersection Capacity Utilization 101.7% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

FT_2031 PM
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	132	152	59	172	51	92	133	2088	253	93	1187	86
v/c Ratio	0.56	0.44	0.18	0.85	0.14	0.26	0.38	0.65	0.26	0.53	0.37	0.09
Control Delay (s/veh)	59.2	52.7	10.9	87.9	45.3	9.7	6.6	7.7	0.6	27.0	14.6	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	59.2	52.7	10.9	87.9	45.3	9.7	6.6	7.7	0.6	27.0	14.6	3.2
Queue Length 50th (m)	35.3	39.6	0.0	49.0	12.5	0.0	3.6	23.9	0.6	6.9	58.7	0.0
Queue Length 95th (m)	53.1	57.0	11.7	71.7	22.9	14.3	m5.2	237.5	m0.0	26.9	87.6	8.5
Internal Link Dist (m)		93.8			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	370	543	474	315	559	497	366	3196	958	200	3190	968
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.28	0.12	0.55	0.09	0.19	0.36	0.65	0.26	0.47	0.37	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















FT_2031 PM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	125	144	56	163	48	87	126	1984	240	88	1128	82	
Future Volume (vph)	125	144	56	163	48	87	126	1984	240	88	1128	82	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00	
Frbp, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97	
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	
Satd. Flow (prot)	1667	1865	1484	1703	1921	1484	1749	5142	1465	1785	5142	1508	
Flt Permitted	0.72	1.00	1.00	0.60	1.00	1.00	0.20	1.00	1.00	0.05	1.00	1.00	
Satd. Flow (perm)	1270	1865	1484	1080	1921	1484	367	5142	1465	102	5142	1508	
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	
Adj. Flow (vph)	132	152	59	172	51	92	133	2088	253	93	1187	86	
RTOR Reduction (vph)	0	0	48	0	0	75	0	0	47	0	0	33	
Lane Group Flow (vph)	132	152	11	172	51	17	133	2088	206	93	1187	53	
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16	
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6	
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm	
Protected Phases		8			4		1	6		5	2		
Permitted Phases	8		8	4		4	6		6	2		2	
Actuated Green, G (s)	26.2	26.2	26.2	26.2	26.2	26.2	95.9	87.0	87.0	95.7	86.9	86.9	
Effective Green, g (s)	26.2	26.2	26.2	26.2	26.2	26.2	95.9	87.0	87.0	95.7	86.9	86.9	
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.69	0.62	0.62	0.68	0.62	0.62	
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	237	349	277	202	359	277	339	3195	910	175	3191	936	
v/s Ratio Prot		0.08			0.03		0.02	c0.41		c0.03	0.23		
v/s Ratio Perm	0.10		0.01	c0.16		0.01	0.24		0.14	0.33		0.04	
v/c Ratio	0.56	0.44	0.04	0.85	0.14	0.06	0.39	0.65	0.23	0.53	0.37	0.06	
Uniform Delay, d1	51.6	50.4	46.6	55.0	47.5	46.8	8.1	16.9	11.7	16.1	13.1	10.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.79	0.39	0.04	1.00	1.00	1.00	
Incremental Delay, d2	2.8	0.9	0.1	27.5	0.2	0.1	0.3	0.5	0.3	3.1	0.3	0.1	
Delay (s)	54.5	51.2	46.7	82.5	47.7	46.9	6.7	7.0	0.8	19.2	13.4	10.6	
Level of Service	D	D	D	F	D	D	A	A	A	B	B	B	
Approach Delay (s/veh)		51.7			66.5			6.4			13.6		
Approach LOS		D			E			A			B		
Intersection Summary													
HCM 2000 Control Delay (s/veh)			16.3		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.69										
Actuated Cycle Length (s)			140.0		Sum of lost time (s)						18.0		
Intersection Capacity Utilization			101.7%		ICU Level of Service						G		
Analysis Period (min)			15										

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FT_2031 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	313	539	4	6	190	80	1	6	5	31	1	59
Future Volume (Veh/h)	313	539	4	6	190	80	1	6	5	31	1	59
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	323	556	4	6	196	82	1	6	5	32	1	61
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.99						0.99	0.99		0.99	0.99	0.99
vC, conflicting volume	280			560			1474	1496	558	1461	1457	239
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	263			560			1473	1496	558	1460	1456	221
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	75			99			99	93	99	60	99	92
cM capacity (veh/h)	1275			1021			77	91	533	80	96	806
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	323	560	6	278	12	32	62					
Volume Left	323	0	6	0	1	32	0					
Volume Right	0	4	0	82	5	0	61					
cSH	1275	1700	1021	1700	135	80	720					
Volume to Capacity	0.25	0.33	0.01	0.16	0.09	0.40	0.09					
Queue Length 95th (m)	8.1	0.0	0.1	0.0	2.3	12.6	2.3					
Control Delay (s/veh)	8.8	0.0	8.5	0.0	34.2	76.9	10.5					
Lane LOS	A		A		D	F	B					
Approach Delay (s/veh)	3.2		0.2		34.2	33.1						
Approach LOS					D	D						
Intersection Summary												
Average Delay			5.0									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

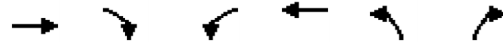
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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations		↗		↑↑↑	↑↑↑	↗		
Traffic Volume (veh/h)	0	5	0	2432	1378	12		
Future Volume (Veh/h)	0	5	0	2432	1378	12		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly flow rate (vph)	0	5	0	2560	1451	13		
Pedestrians	7							
Lane Width (m)	3.6							
Walking Speed (m/s)	1.2							
Percent Blockage	1							
Right turn flare (veh)								
Median type				None	None			
Median storage veh								
Upstream signal (m)				113	172			
pX, platoon unblocked	0.67	0.89	0.89					
vC, conflicting volume	2311	491	1471					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	84	0	1092					
tC, single (s)	6.8	6.9	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	99	100					
cM capacity (veh/h)	601	958	561					
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	5	853	853	853	484	484	484	13
Volume Left	0	0	0	0	0	0	0	0
Volume Right	5	0	0	0	0	0	0	13
cSH	958	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.50	0.50	0.50	0.28	0.28	0.28	0.01
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s/veh)	8.8	0.0				0.0		
Approach LOS	A							
Intersection Summary								
Average Delay			0.0					
Intersection Capacity Utilization			50.3%			ICU Level of Service		A
Analysis Period (min)	15							

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access 1 & Leanne Blvd












FT_2031 PM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	300	5	31	205	3	24
Future Volume (Veh/h)	300	5	31	205	3	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	353	6	36	241	4	28
Pedestrians						8
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						1
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			367			557 188
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			367			557 188
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			97			99 97
cM capacity (veh/h)			1195			448 823
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	235	124	116	161	32	
Volume Left	0	0	36	0	4	
Volume Right	0	6	0	0	28	
cSH	1700	1700	1195	1700	745	
Volume to Capacity	0.14	0.07	0.03	0.09	0.04	
Queue Length 95th (m)	0.0	0.0	0.7	0.0	1.1	
Control Delay (s/veh)	0.0	0.0	2.7	0.0	10.0	
Lane LOS	A			B		
Approach Delay (s/veh)	0.0		1.1	10.0		
Approach LOS				B		
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			29.5%	ICU Level of Service		A
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & Site Access 5

FT_2031 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	2	2	382	4	2	90
Future Volume (Veh/h)	2	2	382	4	2	90
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	2	439	5	2	103
Pedestrians	2		1		1	
Lane Width (m)	3.6		3.6		3.6	
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)	293					
pX, platoon unblocked						
vC, conflicting volume	500	225			446	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	500	225			446	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	503	782			1123	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	293	151	36	69	
Volume Left	2	0	0	2	0	
Volume Right	2	0	5	0	0	
cSH	612	1700	1700	1123	1700	
Volume to Capacity	0.01	0.17	0.09	0.00	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	10.9	0.0	0.0	0.5	0.0	
Lane LOS	B		A			
Approach Delay (s/veh)	10.9	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			21.2%		ICU Level of Service	A
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 104: Leanne Blvd & Site Access 2

FT_2031 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	2	2	379	3	6	95
Future Volume (Veh/h)	2	2	379	3	6	95
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	2	436	3	7	109
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						188
pX, platoon unblocked						
vC, conflicting volume	506	220			439	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	506	220			439	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			99	
cM capacity (veh/h)	493	785			1117	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	291	148	43	73	
Volume Left	2	0	0	7	0	
Volume Right	2	0	3	0	0	
cSH	605	1700	1700	1117	1700	
Volume to Capacity	0.01	0.17	0.09	0.01	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	11.0	0.0	0.0	1.4	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.0	0.0		0.5		
Approach LOS	B					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			20.6%		ICU Level of Service	A
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 105: Leanne Blvd & Site Access 3

FT_2031 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	3	3	379	4	8	89
Future Volume (Veh/h)	3	3	379	4	8	89
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	3	436	5	9	102
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	221					
pX, platoon unblocked						
vC, conflicting volume	508	221			441	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	508	221			441	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			99	
cM capacity (veh/h)	491	783			1115	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	6	291	150	43	68	
Volume Left	3	0	0	9	0	
Volume Right	3	0	5	0	0	
cSH	603	1700	1700	1115	1700	
Volume to Capacity	0.01	0.17	0.09	0.01	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	11.0	0.0	0.0	1.8	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.0	0.0			0.7	
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			20.6%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 106: Leanne Blvd & Site Access 4

FT_2031 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	5	6	377	9	3	87
Future Volume (Veh/h)	5	6	377	9	3	87
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	7	433	10	3	100
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	253					
pX, platoon unblocked						
vC, conflicting volume	494	222			443	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	494	222			443	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	503	782			1113	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	289	154	36	67	
Volume Left	6	0	0	3	0	
Volume Right	7	0	10	0	0	
cSH	623	1700	1700	1113	1700	
Volume to Capacity	0.02	0.17	0.09	0.00	0.04	
Queue Length 95th (m)	0.5	0.0	0.0	0.1	0.0	
Control Delay (s/veh)	10.9	0.0	0.0	0.7	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	10.9	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			20.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

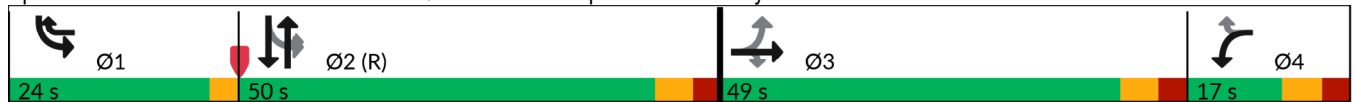
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	673	279	118	23	357	1522	59	337	1467
Future Volume (vph)	673	279	118	23	357	1522	59	337	1467
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	17.0	24.0	50.0	50.0	24.0	50.0
Total Split (%)	35.0%	35.0%	35.0%	12.1%	17.1%	35.7%	35.7%	17.1%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	42.0	42.0	42.0	10.0	35.8	45.7	45.7	74.8	45.7
Actuated g/C Ratio	0.30	0.30	0.30	0.07	0.26	0.33	0.33	0.53	0.33
v/c Ratio	0.98	0.93	0.22	0.19	0.79	0.94	0.10	0.89	0.90
Control Delay (s/veh)	83.3	73.6	9.6	65.2	50.3	57.2	0.5	61.4	65.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	83.3	73.6	9.6	65.2	50.3	57.2	0.5	61.4	65.3
LOS	F	E	A	E	D	E	A	E	E
Approach Delay (s/veh)		70.8				55.1			64.5
Approach LOS		E				E			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay (s/veh): 61.8
 Intersection LOS: E
 Intersection Capacity Utilization 95.3%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2031 PM_Improved
04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	481	491	120	23	364	1553	60	344	1497
v/c Ratio	0.98	0.93	0.22	0.19	0.79	0.94	0.10	0.89	0.90
Control Delay (s/veh)	83.3	73.6	9.6	65.2	50.3	57.2	0.5	61.4	65.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	83.3	73.6	9.6	65.2	50.3	57.2	0.5	61.4	65.3
Queue Length 50th (m)	146.2	146.7	3.1	6.4	77.0	164.6	0.0	~93.7	169.0
Queue Length 95th (m)	#223.4	#219.5	18.4	16.3	117.1	#200.0	0.8	#157.6	#193.0
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	493	526	537	121	461	1660	581	388	1660
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.98	0.93	0.22	0.19	0.79	0.94	0.10	0.89	0.90

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.



















HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2031 PM_Improved
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations														
Traffic Volume (vph)	673	279	118	23	0	357	0	1522	59	337	1467	0		
Future Volume (vph)	673	279	118	23	0	357	0	1522	59	337	1467	0		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7		
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5			
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91			
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00			
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00			
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00			
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00			
Satd. Flow (prot)	1646	1755	1545	1700		1566		5092	1558	1785	5092			
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.09	1.00			
Satd. Flow (perm)	1646	1755	1545	1700		1566		5092	1558	175	5092			
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98		
Adj. Flow (vph)	687	285	120	23	0	364	0	1553	60	344	1497	0		
RTOR Reduction (vph)	0	0	74	0	0	63	0	0	42	0	0	0		
Lane Group Flow (vph)	481	491	47	23	0	301	0	1553	18	344	1497	0		
Confl. Peds. (#/hr)			1	1			10		2	2		10		
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%		
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA			
Protected Phases		3		4		1		2		1	2			
Permitted Phases	3		3			4			2	2				
Actuated Green, G (s)	42.0	42.0	42.0	6.0		31.6		42.9	42.9	68.5	42.9			
Effective Green, g (s)	42.0	42.0	42.0	6.0		31.6		42.9	42.9	68.5	42.9			
Actuated g/C Ratio	0.30	0.30	0.30	0.04		0.23		0.31	0.31	0.49	0.31			
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5			
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0			
Lane Grp Cap (vph)	493	526	463	72		353		1560	477	380	1560			
v/s Ratio Prot				0.01		c0.16		c0.30		c0.17	0.29			
v/s Ratio Perm	c0.29	0.28	0.03			0.04			0.01	0.28				
v/c Ratio	0.98	0.93	0.10	0.32		0.85		1.00	0.04	0.91	0.96			
Uniform Delay, d1	48.5	47.6	35.4	65.0		51.9		48.5	34.1	42.5	47.7			
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.10	1.30			
Incremental Delay, d2	34.0	23.8	0.1	2.6		17.6		21.7	0.2	19.7	12.4			
Delay (s)	82.5	71.4	35.5	67.6		69.5		70.2	34.2	66.6	74.5			
Level of Service	F	E	D	E		E		E	C	E	E			
Approach Delay (s/veh)		72.3			69.4			68.9			73.0			
Approach LOS		E			E			E			E			
Intersection Summary														
HCM 2000 Control Delay (s/veh)			71.2									HCM 2000 Level of Service	E	
HCM 2000 Volume to Capacity ratio			0.96											
Actuated Cycle Length (s)			140.0								23.5			
Intersection Capacity Utilization			95.3%										ICU Level of Service	F
Analysis Period (min)			15											
c Critical Lane Group														

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

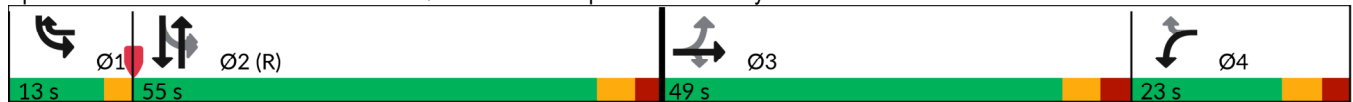
FT_2036 AM
04/17/2026

									
Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	354	105	139	35	377	1342	9	198	1450
Future Volume (vph)	354	105	139	35	377	1342	9	198	1450
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	23.0	13.0	55.0	55.0	13.0	55.0
Total Split (%)	35.0%	35.0%	35.0%	16.4%	9.3%	39.3%	39.3%	9.3%	39.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	25.9	25.9	25.9	10.4	37.8	59.8	59.8	87.1	59.8
Actuated g/C Ratio	0.19	0.19	0.19	0.07	0.27	0.43	0.43	0.62	0.43
v/c Ratio	0.78	0.76	0.36	0.31	0.81	0.69	0.01	0.57	0.74
Control Delay (s/veh)	70.7	68.6	8.8	68.1	49.5	36.5	0.0	52.5	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	68.6	8.8	68.1	49.5	36.5	0.0	52.5	20.5
LOS	E	E	A	E	D	D	A	D	C
Approach Delay (s/veh)		55.5				36.3			24.4
Approach LOS		E				D			C

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 14 (10%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 35.8 Intersection LOS: D
 Intersection Capacity Utilization 76.4% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues

FT_2036 AM

1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

04/17/2026



Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	244	250	149	38	405	1443	10	213	1559
v/c Ratio	0.78	0.76	0.36	0.31	0.81	0.69	0.01	0.57	0.74
Control Delay (s/veh)	70.7	68.6	8.8	68.1	49.5	36.5	0.0	52.5	20.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	70.7	68.6	8.8	68.1	49.5	36.5	0.0	52.5	20.5
Queue Length 50th (m)	72.3	73.7	0.0	10.7	86.4	123.6	0.0	37.9	114.5
Queue Length 95th (m)	97.6	99.1	17.9	22.8	127.6	162.7	0.0	m57.0	190.8
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	532	574	190	497	2094	714	373	2114
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.47	0.26	0.20	0.81	0.69	0.01	0.57	0.74

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

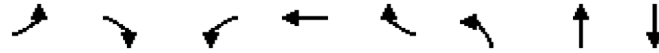
FT_2036 AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↖	↗	↘		↖		↑↑↑	↖	↘	↑↑↑	
Traffic Volume (vph)	354	105	139	35	0	377	0	1342	9	198	1450	0
Future Volume (vph)	354	105	139	35	0	377	0	1342	9	198	1450	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Fr _t	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Fl _t Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1776	1566	1668		1581		4902	1526	1750	4948	
Fl _t Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.09	1.00	
Satd. Flow (perm)	1696	1776	1566	1668		1581		4902	1526	168	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	381	113	149	38	0	405	0	1443	10	213	1559	0
RTOR Reduction (vph)	0	0	121	0	0	75	0	0	6	0	0	0
Lane Group Flow (vph)	244	250	28	38	0	330	0	1443	4	213	1559	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	25.9	25.9	25.9	8.4		32.2		58.4	58.4	82.2	58.4	
Effective Green, g (s)	25.9	25.9	25.9	8.4		32.2		58.4	58.4	82.2	58.4	
Actuated g/C Ratio	0.19	0.19	0.19	0.06		0.23		0.42	0.42	0.59	0.42	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	313	328	289	100		363		2044	636	367	2064	
v/s Ratio Prot				0.02		c0.15		0.29		0.10	c0.32	
v/s Ratio Perm	c0.14	0.14	0.02			0.05			0.00	0.24		
v/c Ratio	0.78	0.76	0.10	0.38		0.91		0.71	0.01	0.58	0.76	
Uniform Delay, d1	54.3	54.1	47.3	63.3		52.5		33.7	23.8	26.5	34.7	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.96	0.53	
Incremental Delay, d2	11.6	10.0	0.1	2.4		25.7		2.1	0.0	1.4	1.6	
Delay (s)	65.9	64.2	47.5	65.7		78.2		35.8	23.9	53.3	19.9	
Level of Service	E	E	D	E		E		D	C	D	B	
Approach Delay (s/veh)		61.0			77.2			35.7			23.9	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			38.9								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	23.5
Intersection Capacity Utilization			76.4%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2036 AM
 04/17/2026

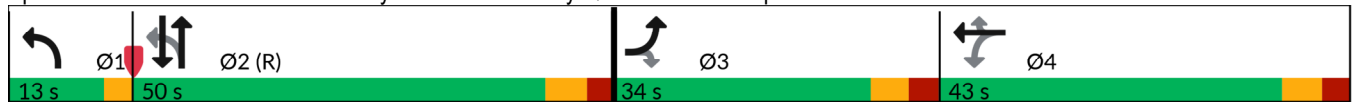


Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	28	136	392	289	377	121	1337	1847
Future Volume (vph)	28	136	392	289	377	121	1337	1847
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.2	9.2	41.4	41.4	41.4	69.4	54.9	54.9
Actuated g/C Ratio	0.07	0.07	0.30	0.30	0.30	0.50	0.39	0.39
v/c Ratio	0.26	0.61	0.80	0.72	0.56	0.69	0.72	0.83
Control Delay (s/veh)	66.9	20.4	58.8	52.2	6.1	50.1	53.2	42.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.9	20.4	58.8	52.2	6.1	50.1	53.2	42.0
LOS	E	C	E	D	A	D	D	D
Approach Delay (s/veh)				37.8			52.9	42.0
Approach LOS				D			D	D

Intersection Summary

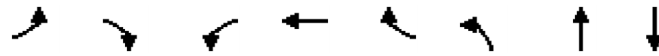
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay (s/veh): 44.0 Intersection LOS: D
 Intersection Capacity Utilization 75.6% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2036 AM
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	30	145	354	370	401	129	1422	2050
v/c Ratio	0.26	0.61	0.80	0.72	0.56	0.69	0.72	0.83
Control Delay (s/veh)	66.9	20.4	58.8	52.2	6.1	50.1	53.2	42.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	66.9	20.4	58.8	52.2	6.1	50.1	53.2	42.0
Queue Length 50th (m)	8.5	0.0	99.6	101.2	0.0	28.2	141.3	102.9
Queue Length 95th (m)	19.0	21.5	130.3	129.3	23.2	m#52.1	#177.1	#207.7
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	419	453	522	729	194	1979	2478
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.35	0.78	0.71	0.55	0.66	0.72	0.83

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2036 AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	28	0	136	392	289	377	121	1337	0	0	1847	80
Future Volume (vph)	28	0	136	392	289	377	121	1337	0	0	1847	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1785		1566	1501	1728	1486	1750	5043			6306	
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.07	1.00			1.00	
Satd. Flow (perm)	1785		1566	1501	1728	1486	134	5043			6306	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	30	0	145	417	307	401	129	1422	0	0	1965	85
RTOR Reduction (vph)	0	0	135	0	0	282	0	0	0	0	4	0
Lane Group Flow (vph)	30	0	10	354	370	119	129	1422	0	0	2046	0
Confl. Peds. (#/hr)	2					2	19		11	11		19
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	9.2		9.2	41.4	41.4	41.4	65.4	54.9			54.9	
Effective Green, g (s)	9.2		9.2	41.4	41.4	41.4	65.4	54.9			54.9	
Actuated g/C Ratio	0.07		0.07	0.30	0.30	0.30	0.47	0.39			0.39	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	117		102	443	510	439	183	1977			2472	
v/s Ratio Prot	c0.02						c0.05	0.28			c0.32	
v/s Ratio Perm			0.01	c0.24	0.21	0.08	0.27					
v/c Ratio	0.26		0.09	0.80	0.73	0.27	0.70	0.72			0.83	
Uniform Delay, d1	62.1		61.5	45.5	44.2	37.7	28.2	36.0			38.3	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.39	1.38			0.99	
Incremental Delay, d2	1.2		0.4	9.7	5.1	0.3	8.7	1.7			2.9	
Delay (s)	63.3		61.9	55.2	49.3	38.1	47.9	51.2			41.0	
Level of Service	E		E	E	D	D	D	D			D	
Approach Delay (s/veh)		62.1			47.1			51.0			41.0	
Approach LOS		E			D			D			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			46.3								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.76									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	24.0
Intersection Capacity Utilization			75.6%								ICU Level of Service	D
Analysis Period (min)			15									
c	Critical Lane Group											

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	67	75	209	89	112	47	1720	142	65	1674	129
Future Volume (vph)	98	67	75	209	89	112	47	1720	142	65	1674	129
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.1	29.1	29.1	29.1	29.1	29.1	96.7	87.0	87.0	97.9	87.6	87.6
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.69	0.62	0.62	0.70	0.63	0.63
v/c Ratio	0.42	0.19	0.21	0.81	0.26	0.30	0.25	0.57	0.17	0.36	0.55	0.14
Control Delay (s/veh)	51.6	44.3	9.3	74.7	46.0	8.5	8.6	8.8	0.5	13.0	17.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.6	44.3	9.3	74.7	46.0	8.5	8.6	8.8	0.5	13.0	17.4	5.4
LOS	D	D	A	E	D	A	A	A	A	B	B	A
Approach Delay (s/veh)		36.4			50.4			8.1			16.4	
Approach LOS		D			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 17.1 Intersection LOS: B
 Intersection Capacity Utilization 86.7% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	102	70	78	218	93	117	49	1792	148	68	1744	134
v/c Ratio	0.42	0.19	0.21	0.81	0.26	0.30	0.25	0.57	0.17	0.36	0.55	0.14
Control Delay (s/veh)	51.6	44.3	9.3	74.7	46.0	8.5	8.6	8.8	0.5	13.0	17.4	5.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.6	44.3	9.3	74.7	46.0	8.5	8.6	8.8	0.5	13.0	17.4	5.4
Queue Length 50th (m)	26.1	17.0	0.0	61.2	22.9	0.0	1.2	30.9	0.0	5.4	104.4	4.5
Queue Length 95th (m)	40.9	28.4	12.9	84.4	35.9	15.2	m2.6	202.8	m0.2	13.3	147.0	16.6
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	339	528	486	376	504	509	231	3163	853	211	3153	988
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.13	0.16	0.58	0.18	0.23	0.21	0.57	0.17	0.32	0.55	0.14

Intersection Summary
 m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

FT_2036 AM
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
















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↑	↗	↘	↑↑↑	↗	↘	↑↑↑	↗
Traffic Volume (vph)	98	67	75	209	89	112	47	1720	142	65	1674	129
Future Volume (vph)	98	67	75	209	89	112	47	1720	142	65	1674	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1586	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524
Fl _t Permitted	0.70	1.00	1.00	0.71	1.00	1.00	0.09	1.00	1.00	0.09	1.00	1.00
Satd. Flow (perm)	1163	1812	1481	1292	1731	1463	170	5092	1322	147	5043	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	102	70	78	218	93	117	49	1792	148	68	1744	134
RTOR Reduction (vph)	0	0	62	0	0	93	0	0	33	0	0	35
Lane Group Flow (vph)	102	70	16	218	93	24	49	1792	115	68	1744	99
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	29.1	29.1	29.1	29.1	29.1	29.1	92.3	86.4	86.4	93.5	87.0	87.0
Effective Green, g (s)	29.1	29.1	29.1	29.1	29.1	29.1	92.3	86.4	86.4	93.5	87.0	87.0
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.62	0.62	0.67	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	241	376	307	268	359	304	177	3142	815	167	3133	947
v/s Ratio Prot		0.04			0.05		0.01	c0.35		c0.02	0.35	
v/s Ratio Perm	0.09		0.01	c0.17		0.02	0.17		0.09	0.25		0.06
v/c Ratio	0.42	0.19	0.05	0.81	0.26	0.08	0.28	0.57	0.14	0.41	0.56	0.10
Uniform Delay, d1	48.2	45.7	44.4	52.9	46.4	44.7	10.5	15.8	11.2	11.3	15.3	10.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.81	0.47	0.02	1.00	1.00	1.00
Incremental Delay, d2	1.2	0.2	0.1	17.0	0.4	0.1	0.7	0.6	0.3	1.6	0.7	0.2
Delay (s)	49.4	45.9	44.5	69.8	46.8	44.8	9.2	8.0	0.5	12.9	16.1	10.9
Level of Service	D	D	D	E	D	D	A	A	A	B	B	B
Approach Delay (s/veh)		46.9			58.0			7.5			15.6	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.7								B	
HCM 2000 Volume to Capacity ratio			0.62									
Actuated Cycle Length (s)			140.0							18.0		
Intersection Capacity Utilization			86.7%								E	
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (veh/h)	89	294	0	11	609	24	1	0	2	50	3	208	
Future Volume (Veh/h)	89	294	0	11	609	24	1	0	2	50	3	208	
Sign Control	Free			Free				Stop			Stop		
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)	99	327	0	12	677	27	1	0	2	56	3	231	
Pedestrians												1	
Lane Width (m)												3.6	
Walking Speed (m/s)												1.2	
Percent Blockage												0	
Right turn flare (veh)													
Median type	None				None								
Median storage (veh)													
Upstream signal (m)					188								
pX, platoon unblocked	0.79						0.79	0.79			0.79	0.79	0.79
vC, conflicting volume	705			327				1459	1254	327	1243	1241	692
vC1, stage 1 conf vol													
vC2, stage 2 conf vol													
vCu, unblocked vol	497			327				1448	1190	327	1175	1173	480
tC, single (s)	4.1			4.1				7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)													
tF (s)	2.2			2.2				3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	88			99				97	100	100	53	98	50
cM capacity (veh/h)	845			1244				39	130	719	118	134	464
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2						
Volume Total	99	327	12	704	3	56	234						
Volume Left	99	0	12	0	1	56	0						
Volume Right	0	0	0	27	2	0	231						
cSH	845	1700	1244	1700	106	118	450						
Volume to Capacity	0.12	0.19	0.01	0.41	0.03	0.47	0.52						
Queue Length 95th (m)	3.2	0.0	0.2	0.0	0.7	17.0	23.5						
Control Delay (s/veh)	9.8	0.0	7.9	0.0	40.1	60.5	21.4						
Lane LOS	A		A		E	F	C						
Approach Delay (s/veh)	2.3			0.1			40.1	28.9					
Approach LOS					E	D							
Intersection Summary													
Average Delay			6.7										
Intersection Capacity Utilization			Err%		ICU Level of Service			H					
Analysis Period (min)			15										

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

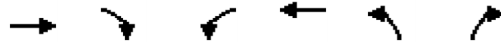
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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations		↗		↑↑↑	↑↑↑	↗		
Traffic Volume (veh/h)	0	6	0	1915	1988	5		
Future Volume (Veh/h)	0	6	0	1915	1988	5		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly flow rate (vph)	0	6	0	2059	2138	5		
Pedestrians	1							
Lane Width (m)	3.6							
Walking Speed (m/s)	1.2							
Percent Blockage	0							
Right turn flare (veh)								
Median type				None	None			
Median storage veh								
Upstream signal (m)				113	172			
pX, platoon unblocked	0.86	0.80	0.80					
vC, conflicting volume	2825	714	2144					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	986	0	1551					
tC, single (s)	6.8	6.9	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	99	100					
cM capacity (veh/h)	211	865	338					
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	6	686	686	686	713	713	713	5
Volume Left	0	0	0	0	0	0	0	0
Volume Right	6	0	0	0	0	0	0	5
cSH	865	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.40	0.40	0.40	0.42	0.42	0.42	0.00
Queue Length 95th (m)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s/veh)	9.2	0.0			0.0			
Approach LOS	A							
Intersection Summary								
Average Delay	0.0							
Intersection Capacity Utilization	48.4%			ICU Level of Service			A	
Analysis Period (min)	15							

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access 1 & Leanne Blvd












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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	200	1	11	282	4	42
Future Volume (Veh/h)	200	1	11	282	4	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	235	1	13	332	5	49
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			239		431	121
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			239		431	121
tC, single (s)			4.1		6.8	6.9
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		99	95
cM capacity (veh/h)			1336		546	912
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	157	79	124	221	54	
Volume Left	0	0	13	0	5	
Volume Right	0	1	0	0	49	
cSH	1700	1700	1336	1700	859	
Volume to Capacity	0.09	0.05	0.01	0.13	0.06	
Queue Length 95th (m)	0.0	0.0	0.2	0.0	1.6	
Control Delay (s/veh)	0.0	0.0	0.9	0.0	9.5	
Lane LOS			A			A
Approach Delay (s/veh)	0.0	0.3				9.5
Approach LOS					A	
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			25.8%	ICU Level of Service		A
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & Site Access 5

FT_2036 AM
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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	3	4	123	1	1	266
Future Volume (Veh/h)	3	4	123	1	1	266
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	4	5	146	1	1	317
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						293
pX, platoon unblocked						
vC, conflicting volume	309	76			149	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	309	76			149	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	663	975			1428	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	97	50	107	211	
Volume Left	4	0	0	1	0	
Volume Right	5	0	1	0	0	
cSH	806	1700	1700	1428	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.5	0.0	0.0	0.1	0.0	
Lane LOS	A			A		
Approach Delay (s/veh)	9.5	0.0		0.0		
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			18.0%		ICU Level of Service	A
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 104: Leanne Blvd & Site Access 2

FT_2036 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	4	137	1	1	256
Future Volume (Veh/h)	3	4	137	1	1	256
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	4	5	163	1	1	305
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	188					
pX, platoon unblocked						
vC, conflicting volume	318	82			164	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	318	82			164	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	650	961			1412	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	109	55	103	203	
Volume Left	4	0	0	1	0	
Volume Right	5	0	1	0	0	
cSH	792	1700	1700	1412	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.1	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.6	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			17.8%	ICU Level of Service	A	
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 105: Leanne Blvd & Site Access 3

FT_2036 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	5	133	1	2	257
Future Volume (Veh/h)	4	5	133	1	2	257
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	5	6	158	1	2	306
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (m)						222
pX, platoon unblocked						
vC, conflicting volume	316	80			159	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	316	80			159	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	652	965			1418	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	11	105	54	104	204	
Volume Left	5	0	0	2	0	
Volume Right	6	0	1	0	0	
cSH	792	1700	1700	1418	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.2	0.0	
Lane LOS	A			A		
Approach Delay (s/veh)	9.6	0.0		0.1		
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			18.5%		ICU Level of Service	A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 106: Leanne Blvd & Site Access 4

FT_2036 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	10	124	3	2	259
Future Volume (Veh/h)	8	10	124	3	2	259
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	10	12	148	4	2	308
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	254					
pX, platoon unblocked						
vC, conflicting volume	308	76			152	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	308	76			152	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			100	
cM capacity (veh/h)	659	970			1426	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	22	99	53	105	205	
Volume Left	10	0	0	2	0	
Volume Right	12	0	4	0	0	
cSH	798	1700	1700	1426	1700	
Volume to Capacity	0.03	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.7	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.2	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.6	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			18.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2036 PM
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	739	307	130	24	366	1560	61	346	1504
Future Volume (vph)	739	307	130	24	366	1560	61	346	1504
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	46.0	46.0	46.0	25.0	22.0	47.0	47.0	22.0	47.0
Total Split (%)	32.9%	32.9%	32.9%	17.9%	15.7%	33.6%	33.6%	15.7%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.0	39.0	39.0	10.0	42.5	42.0	42.0	77.8	42.0
Actuated g/C Ratio	0.28	0.28	0.28	0.07	0.30	0.30	0.30	0.56	0.30
v/c Ratio	1.15	1.10	0.26	0.20	0.70	1.04	0.11	0.75	1.00
Control Delay (s/veh)	135.9	118.7	12.3	65.5	41.1	81.7	0.9	43.5	80.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	135.9	118.7	12.3	65.5	41.1	81.7	0.9	43.5	80.1
LOS	F	F	B	E	D	F	A	D	F
Approach Delay (s/veh)		114.4				78.7			73.3
Approach LOS		F				E			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.15
 Intersection Signal Delay (s/veh): 82.3 Intersection LOS: F
 Intersection Capacity Utilization 99.1% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	528	539	133	24	373	1592	62	353	1535
v/c Ratio	1.15	1.10	0.26	0.20	0.70	1.04	0.11	0.75	1.00
Control Delay (s/veh)	135.9	118.7	12.3	65.5	41.1	81.7	0.9	43.5	80.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	135.9	118.7	12.3	65.5	41.1	81.7	0.9	43.5	80.1
Queue Length 50th (m)	~190.1	~187.5	6.0	6.7	75.0	~189.4	0.0	90.4	~181.9
Queue Length 95th (m)	#266.5	#264.6	23.0	16.8	113.7	#220.6	1.3 m	#139.0	#213.5
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	488	506	218	532	1528	544	473	1528
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.15	1.10	0.26	0.11	0.70	1.04	0.11	0.75	1.00

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2036 PM
 04/17/2026

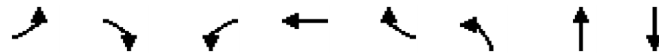


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↖	↗	↘		↖		↑↑↑	↖	↘	↑↑↑	
Traffic Volume (vph)	739	307	130	24	0	366	0	1560	61	346	1504	0
Future Volume (vph)	739	307	130	24	0	366	0	1560	61	346	1504	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1755	1545	1700		1566		5092	1558	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1646	1755	1545	1700		1566		5092	1558	192	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	754	313	133	24	0	373	0	1592	62	353	1535	0
RTOR Reduction (vph)	0	0	76	0	0	60	0	0	45	0	0	0
Lane Group Flow (vph)	528	539	57	24	0	313	0	1592	17	353	1535	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	39.0	39.0	39.0	6.0		38.3		39.2	39.2	71.5	39.2	
Effective Green, g (s)	39.0	39.0	39.0	6.0		38.3		39.2	39.2	71.5	39.2	
Actuated g/C Ratio	0.28	0.28	0.28	0.04		0.27		0.28	0.28	0.51	0.28	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	458	488	430	72		428		1425	436	465	1425	
v/s Ratio Prot				0.01		c0.17		c0.31		c0.17	0.30	
v/s Ratio Perm	c0.32	0.31	0.04			0.03			0.01	0.21		
v/c Ratio	1.15	1.10	0.13	0.33		0.73		1.12	0.04	0.76	1.08	
Uniform Delay, d1	50.5	50.5	37.8	65.1		46.2		50.4	36.7	37.3	50.4	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.04	1.26	
Incremental Delay, d2	91.1	72.4	0.1	2.7		6.4		62.8	0.2	4.9	44.3	
Delay (s)	141.6	122.9	38.0	67.8		52.6		113.2	36.9	43.5	107.8	
Level of Service	F	F	D	E		D		F	D	D	F	
Approach Delay (s/veh)		121.7			53.5			110.4			95.8	
Approach LOS		F			D			F			F	

Intersection Summary			
HCM 2000 Control Delay (s/veh)	103.3	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	140.0	Sum of lost time (s)	23.5
Intersection Capacity Utilization	99.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	139	301	432	77	433	92	2014	1726
Future Volume (vph)	139	301	432	77	433	92	2014	1726
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	33.0	33.0	43.0	43.0	43.0	11.0	53.0	53.0
Total Split (%)	23.6%	23.6%	30.7%	30.7%	30.7%	7.9%	37.9%	37.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.3	21.3	29.9	29.9	29.9	68.8	56.7	56.7
Actuated g/C Ratio	0.15	0.15	0.21	0.21	0.21	0.49	0.41	0.41
v/c Ratio	0.56	0.89	0.78	0.77	0.91	0.62	1.03	0.71
Control Delay (s/veh)	62.5	58.8	67.4	65.6	48.1	35.2	48.5	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.5	58.8	67.4	65.6	48.1	35.2	48.5	33.2
LOS	E	E	E	E	D	D	D	C
Approach Delay (s/veh)				58.0			47.9	33.2
Approach LOS				E			D	C

Intersection Summary

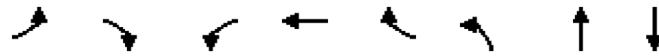
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay (s/veh): 45.8 Intersection LOS: D
 Intersection Capacity Utilization 91.9% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	148	320	267	275	461	98	2143	1867
v/c Ratio	0.56	0.89	0.78	0.77	0.91	0.62	1.03	0.71
Control Delay (s/veh)	62.5	58.8	67.4	65.6	48.1	35.2	48.5	33.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	62.5	58.8	67.4	65.6	48.1	35.2	48.5	33.2
Queue Length 50th (m)	39.8	53.7	76.1	78.1	68.8	11.5	~270.8	93.2
Queue Length 95th (m)	61.8	#96.7	107.6	109.5	#123.6	m10.9	m#266.0	124.5
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	321	408	411	431	563	163	2082	2619
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.78	0.65	0.64	0.82	0.60	1.03	0.71

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
 Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2036 PM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR		
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑			
Traffic Volume (vph)	139	0	301	432	77	433	92	2014	0	0	1726	29		
Future Volume (vph)	139	0	301	432	77	433	92	2014	0	0	1726	29		
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7		
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0			
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86			
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00			
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00			
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00			
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00			
Satd. Flow (prot)	1733		1597	1600	1678	1514	1767	5142			6461			
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.07	1.00			1.00			
Satd. Flow (perm)	1733		1597	1600	1678	1514	131	5142			6461			
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94		
Adj. Flow (vph)	148	0	320	460	82	461	98	2143	0	0	1836	31		
RTOR Reduction (vph)	0	0	117	0	0	185	0	0	0	0	1	0		
Lane Group Flow (vph)	148	0	203	267	275	276	98	2143	0	0	1866	0		
Confl. Peds. (#/hr)	12					12	5					5		
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%		
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA			
Protected Phases	3			4	4		1	2			2			
Permitted Phases			3	4		4	2							
Actuated Green, G (s)	21.3		21.3	29.9	29.9	29.9	64.8	56.7			56.7			
Effective Green, g (s)	21.3		21.3	29.9	29.9	29.9	64.8	56.7			56.7			
Actuated g/C Ratio	0.15		0.15	0.21	0.21	0.21	0.46	0.41			0.41			
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0			
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0			
Lane Grp Cap (vph)	263		242	341	358	323	155	2082			2616			
v/s Ratio Prot	0.09						c0.04	c0.42			0.29			
v/s Ratio Perm			c0.13	0.17	0.16	c0.18	0.26							
v/c Ratio	0.56		0.84	0.78	0.77	0.86	0.63	1.03			0.71			
Uniform Delay, d1	55.0		57.7	52.0	51.8	53.0	26.1	41.7			34.8			
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.42	0.76			0.85			
Incremental Delay, d2	2.7		21.7	11.1	9.5	19.3	0.8	15.5			1.6			
Delay (s)	57.8		79.4	63.1	61.3	72.3	37.8	47.1			31.3			
Level of Service	E		E	E	E	E	D	D			C			
Approach Delay (s/veh)		72.5			66.8			46.7			31.3			
Approach LOS		E			E			D			C			
Intersection Summary														
HCM 2000 Control Delay (s/veh)			47.3									HCM 2000 Level of Service	D	
HCM 2000 Volume to Capacity ratio			0.92											
Actuated Cycle Length (s)			140.0								24.0			
Intersection Capacity Utilization			91.9%										ICU Level of Service	F
Analysis Period (min)			15											
c Critical Lane Group														

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	148	56	163	50	87	126	2034	240	88	1157	82
Future Volume (vph)	125	148	56	163	50	87	126	2034	240	88	1157	82
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.5	26.5	26.5	26.5	26.5	26.5	99.5	86.8	86.8	99.1	86.6	86.6
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.71	0.62	0.62	0.71	0.62	0.62
v/c Ratio	0.55	0.44	0.18	0.86	0.15	0.26	0.39	0.67	0.27	0.54	0.38	0.09
Control Delay (s/veh)	58.7	52.6	10.8	88.6	45.2	9.6	7.0	7.7	0.6	31.1	14.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.7	52.6	10.8	88.6	45.2	9.6	7.0	8.0	0.6	31.1	14.9	3.2
LOS	E	D	B	F	D	A	A	A	A	C	B	A
Approach Delay (s/veh)		47.8			58.4			7.2			15.2	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay (s/veh): 16.2 Intersection LOS: B
 Intersection Capacity Utilization 102.7% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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






















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	132	156	59	172	53	92	133	2141	253	93	1218	86
v/c Ratio	0.55	0.44	0.18	0.86	0.15	0.26	0.39	0.67	0.27	0.54	0.38	0.09
Control Delay (s/veh)	58.7	52.6	10.8	88.6	45.2	9.6	7.0	7.7	0.6	31.1	14.9	3.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.7	52.6	10.8	88.6	45.2	9.6	7.0	8.0	0.6	31.1	14.9	3.2
Queue Length 50th (m)	35.2	40.7	0.0	49.0	13.0	0.0	4.1	28.1	0.7	8.0	61.2	0.0
Queue Length 95th (m)	52.9	57.9	11.7	71.8	23.5	14.2	m5.1	m226.7	m0.0	28.7	91.1	8.6
Internal Link Dist (m)		93.8			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	369	543	474	310	559	497	357	3187	954	193	3179	965
Starvation Cap Reductn	0	0	0	0	0	0	0	409	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.29	0.12	0.55	0.09	0.19	0.37	0.77	0.27	0.48	0.38	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	148	56	163	50	87	126	2034	240	88	1157	82
Future Volume (vph)	125	148	56	163	50	87	126	2034	240	88	1157	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frbp, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1667	1865	1484	1703	1921	1484	1749	5142	1465	1785	5142	1508
Flt Permitted	0.72	1.00	1.00	0.59	1.00	1.00	0.19	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1268	1865	1484	1065	1921	1484	351	5142	1465	92	5142	1508
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	132	156	59	172	53	92	133	2141	253	93	1218	86
RTOR Reduction (vph)	0	0	48	0	0	75	0	0	46	0	0	33
Lane Group Flow (vph)	132	156	11	172	53	17	133	2141	207	93	1218	53
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	26.5	26.5	26.5	26.5	26.5	26.5	95.7	86.7	86.7	95.3	86.5	86.5
Effective Green, g (s)	26.5	26.5	26.5	26.5	26.5	26.5	95.7	86.7	86.7	95.3	86.5	86.5
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.68	0.62	0.62	0.68	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	240	353	280	201	363	280	329	3184	907	169	3177	931
v/s Ratio Prot		0.08			0.03		0.03	c0.42		c0.03	0.24	
v/s Ratio Perm	0.10		0.01	c0.16		0.01	0.25		0.14	0.34		0.04
v/c Ratio	0.55	0.44	0.04	0.86	0.15	0.06	0.40	0.67	0.23	0.55	0.38	0.06
Uniform Delay, d1	51.4	50.2	46.4	54.9	47.3	46.6	8.2	17.4	11.8	18.4	13.4	10.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.90	0.38	0.05	1.00	1.00	1.00
Incremental Delay, d2	2.7	0.9	0.1	28.2	0.2	0.1	0.2	0.3	0.2	3.8	0.4	0.1
Delay (s)	54.1	51.1	46.4	83.1	47.5	46.6	7.7	7.0	0.7	22.2	13.7	10.7
Level of Service	D	D	D	F	D	D	A	A	A	C	B	B
Approach Delay (s/veh)		51.4			66.5			6.4			14.1	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.3								B	
HCM 2000 Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			140.0							18.0		
Intersection Capacity Utilization			102.7%								G	
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	321	566	4	6	200	82	1	6	5	32	1	61
Future Volume (Veh/h)	321	566	4	6	200	82	1	6	5	32	1	61
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	331	584	4	6	206	85	1	6	5	33	1	63
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.98						0.98	0.98		0.98	0.98	0.98
vC, conflicting volume	293			588			1530	1553	586	1517	1513	251
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	270			588			1530	1554	586	1517	1513	226
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	74			99			99	93	99	54	99	92
cM capacity (veh/h)	1262			997			69	82	514	72	87	796
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	331	588	6	291	12	33	64					
Volume Left	331	0	6	0	1	33	0					
Volume Right	0	4	0	85	5	0	63					
cSH	1262	1700	997	1700	123	72	706					
Volume to Capacity	0.26	0.35	0.01	0.17	0.10	0.46	0.09					
Queue Length 95th (m)	8.5	0.0	0.1	0.0	2.5	14.8	2.4					
Control Delay (s/veh)	8.9	0.0	8.6	0.0	37.4	91.9	10.6					
Lane LOS	A		A		E	F	B					
Approach Delay (s/veh)	3.2		0.2		37.4	38.3						
Approach LOS					E	E						
Intersection Summary												
Average Delay			5.4									
Intersection Capacity Utilization			Err%		ICU Level of Service			H				
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

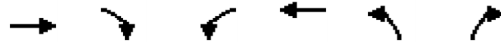
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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations		↗		↑↑↑	↑↑↑	↗		
Traffic Volume (veh/h)	0	5	0	2492	1412	12		
Future Volume (Veh/h)	0	5	0	2492	1412	12		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly flow rate (vph)	0	5	0	2623	1486	13		
Pedestrians	7							
Lane Width (m)	3.6							
Walking Speed (m/s)	1.2							
Percent Blockage	1							
Right turn flare (veh)								
Median type				None	None			
Median storage veh								
Upstream signal (m)				113	172			
pX, platoon unblocked	0.66	0.88	0.88					
vC, conflicting volume	2367	502	1506					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	69	0	1112					
tC, single (s)	6.8	6.9	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	99	100					
cM capacity (veh/h)	607	953	548					
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	5	874	874	874	495	495	495	13
Volume Left	0	0	0	0	0	0	0	0
Volume Right	5	0	0	0	0	0	0	13
cSH	953	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.51	0.51	0.51	0.29	0.29	0.29	0.01
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s/veh)	8.8	0.0				0.0		
Approach LOS	A							
Intersection Summary								
Average Delay			0.0					
Intersection Capacity Utilization			51.5%			ICU Level of Service		A
Analysis Period (min)	15							

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access 1 & Leanne Blvd












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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	308	5	31	210	3	24
Future Volume (Veh/h)	308	5	31	210	3	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	362	6	36	247	4	28
Pedestrians						8
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						1
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			376			569 192
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			376			569 192
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			97			99 97
cM capacity (veh/h)			1186			441 818
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	241	127	118	165	32	
Volume Left	0	0	36	0	4	
Volume Right	0	6	0	0	28	
cSH	1700	1700	1186	1700	739	
Volume to Capacity	0.14	0.07	0.03	0.10	0.04	
Queue Length 95th (m)	0.0	0.0	0.8	0.0	1.1	
Control Delay (s/veh)	0.0	0.0	2.7	0.0	10.1	
Lane LOS	A			B		
Approach Delay (s/veh)	0.0		1.1	10.1		
Approach LOS				B		
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			29.8%	ICU Level of Service		A
Analysis Period (min)			15			










HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & Site Access 5

FT_2036 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	2	2	392	4	2	93
Future Volume (Veh/h)	2	2	392	4	2	93
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	2	451	5	2	107
Pedestrians	2		1		1	
Lane Width (m)	3.6		3.6		3.6	
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)	293					
pX, platoon unblocked						
vC, conflicting volume	514	231			458	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	514	231			458	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	493	776			1112	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	301	155	38	71	
Volume Left	2	0	0	2	0	
Volume Right	2	0	5	0	0	
cSH	603	1700	1700	1112	1700	
Volume to Capacity	0.01	0.18	0.09	0.00	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	11.0	0.0	0.0	0.5	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.0	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			21.4%		ICU Level of Service	A
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 104: Leanne Blvd & Site Access 2

FT_2036 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	2	389	3	6	98
Future Volume (Veh/h)	2	2	389	3	6	98
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	2	447	3	7	113
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	188					
pX, platoon unblocked						
vC, conflicting volume	519	225			450	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	519	225			450	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			99	
cM capacity (veh/h)	483	778			1107	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	298	152	45	75	
Volume Left	2	0	0	7	0	
Volume Right	2	0	3	0	0	
cSH	596	1700	1700	1107	1700	
Volume to Capacity	0.01	0.18	0.09	0.01	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	11.1	0.0	0.0	1.3	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.1	0.0			0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			20.8%	ICU Level of Service	A	
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 105: Leanne Blvd & Site Access 3

FT_2036 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	3	3	389	4	8	92
Future Volume (Veh/h)	3	3	389	4	8	92
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	3	447	5	9	106
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	221					
pX, platoon unblocked						
vC, conflicting volume	521	226			452	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	521	226			452	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			99	
cM capacity (veh/h)	481	777			1105	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	6	298	154	44	71	
Volume Left	3	0	0	9	0	
Volume Right	3	0	5	0	0	
cSH	595	1700	1700	1105	1700	
Volume to Capacity	0.01	0.18	0.09	0.01	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	11.1	0.0	0.0	1.7	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.1	0.0			0.7	
Approach LOS	B					
Intersection Summary						
Average Delay	0.3					
Intersection Capacity Utilization	20.9%		ICU Level of Service		A	
Analysis Period (min)	15					

HCM Unsignalized Intersection Capacity Analysis
 106: Leanne Blvd & Site Access 4

FT_2036 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	5	6	387	9	3	90
Future Volume (Veh/h)	5	6	387	9	3	90
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	7	445	10	3	103
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	253					
pX, platoon unblocked						
vC, conflicting volume	508	228			455	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	508	228			455	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	493	775			1102	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	297	158	37	69	
Volume Left	6	0	0	3	0	
Volume Right	7	0	10	0	0	
cSH	613	1700	1700	1102	1700	
Volume to Capacity	0.02	0.17	0.09	0.00	0.04	
Queue Length 95th (m)	0.5	0.0	0.0	0.1	0.0	
Control Delay (s/veh)	11.0	0.0	0.0	0.7	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.0	0.0			0.2	
Approach LOS	B					
Intersection Summary						
Average Delay	0.3					
Intersection Capacity Utilization	21.0%		ICU Level of Service		A	
Analysis Period (min)	15					

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	739	307	130	24	366	1560	61	346	1504
Future Volume (vph)	739	307	130	24	366	1560	61	346	1504
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	59.0	59.0	59.0	17.0	27.0	57.0	57.0	27.0	57.0
Total Split (%)	36.9%	36.9%	36.9%	10.6%	16.9%	35.6%	35.6%	16.9%	35.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	52.0	52.0	52.0	10.0	40.7	50.8	50.8	84.8	50.8
Actuated g/C Ratio	0.33	0.33	0.33	0.06	0.25	0.32	0.32	0.53	0.32
v/c Ratio	0.99	0.95	0.23	0.23	0.83	0.99	0.11	0.90	0.95
Control Delay (s/veh)	89.2	78.7	13.6	76.8	61.2	72.9	2.2	72.4	74.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.2	78.7	13.6	76.8	61.2	72.9	2.2	72.4	74.0
LOS	F	E	B	E	E	E	A	E	E
Approach Delay (s/veh)		76.1				70.3			73.7
Approach LOS		E				E			E

Intersection Summary

Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 97 (61%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.99
 Intersection Signal Delay (s/veh): 72.3
 Intersection LOS: E
 Intersection Capacity Utilization 99.1%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	528	539	133	24	373	1592	62	353	1535
v/c Ratio	0.99	0.95	0.23	0.23	0.83	0.99	0.11	0.90	0.95
Control Delay (s/veh)	89.2	78.7	13.6	76.8	61.2	72.9	2.2	72.4	74.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	89.2	78.7	13.6	76.8	61.2	72.9	2.2	72.4	74.0
Queue Length 50th (m)	185.5	185.6	8.6	7.8	98.0	195.2	0.0	~115.2	160.4
Queue Length 95th (m)	#269.0	#265.0	25.9	18.5	#150.8	#231.0	3.7	#185.1	#222.0
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	534	570	566	106	452	1615	558	393	1615
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.99	0.95	0.23	0.23	0.83	0.99	0.11	0.90	0.95

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

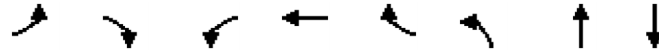
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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖		↖		↑↑↑	↖	↖	↑↑↑	
Traffic Volume (vph)	739	307	130	24	0	366	0	1560	61	346	1504	0
Future Volume (vph)	739	307	130	24	0	366	0	1560	61	346	1504	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Fr _t	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Fl _t Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1755	1545	1700		1566		5092	1557	1785	5092	
Fl _t Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.08	1.00	
Satd. Flow (perm)	1646	1755	1545	1700		1566		5092	1557	157	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	754	313	133	24	0	373	0	1592	62	353	1535	0
RTOR Reduction (vph)	0	0	65	0	0	56	0	0	43	0	0	0
Lane Group Flow (vph)	528	539	68	24	0	317	0	1592	19	353	1535	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	52.0	52.0	52.0	6.0		36.5		48.0	48.0	78.5	48.0	
Effective Green, g (s)	52.0	52.0	52.0	6.0		36.5		48.0	48.0	78.5	48.0	
Actuated g/C Ratio	0.33	0.33	0.33	0.04		0.23		0.30	0.30	0.49	0.30	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	534	570	502	63		357		1527	467	387	1527	
v/s Ratio Prot				0.01		c0.17		c0.31		c0.17	0.30	
v/s Ratio Perm	c0.32	0.31	0.04			0.03			0.01	0.27		
v/c Ratio	0.99	0.95	0.14	0.38		0.89		1.04	0.04	0.91	1.01	
Uniform Delay, d1	53.7	52.6	38.1	75.2		59.8		56.0	39.7	50.3	56.0	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.18	1.19	
Incremental Delay, d2	35.7	24.7	0.1	3.8		22.5		35.0	0.2	20.4	21.2	
Delay (s)	89.4	77.3	38.3	79.0		82.3		91.0	39.8	79.8	88.1	
Level of Service	F	E	D	E		F		F	D	E	F	
Approach Delay (s/veh)		78.3			82.1			89.1			86.6	
Approach LOS		E			F			F			F	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			85.1			HCM 2000 Level of Service			F			
HCM 2000 Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			160.0			Sum of lost time (s)			23.5			
Intersection Capacity Utilization			99.1%			ICU Level of Service			F			
Analysis Period (min)			15									
c Critical Lane Group												

Timings
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	139	301	432	77	433	92	2014	1726
Future Volume (vph)	139	301	432	77	433	92	2014	1726
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	37.0	37.0	43.0	43.0	43.0	19.0	61.0	61.0
Total Split (%)	23.1%	23.1%	26.9%	26.9%	26.9%	11.9%	38.1%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	20.8	20.8	31.6	31.6	31.6	87.6	73.4	73.4
Actuated g/C Ratio	0.13	0.13	0.20	0.20	0.20	0.55	0.46	0.46
v/c Ratio	0.66	0.86	0.84	0.83	0.87	0.60	0.91	0.63
Control Delay (s/veh)	79.2	49.1	84.5	82.2	38.9	47.8	33.2	36.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	79.2	49.1	84.5	82.2	38.9	47.8	33.2	36.5
LOS	E	D	F	F	D	D	C	D
Approach Delay (s/veh)				62.9			33.9	36.5
Approach LOS				E			C	D

Intersection Summary

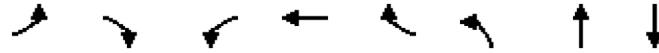
Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 131 (82%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay (s/veh): 42.0 Intersection LOS: D
 Intersection Capacity Utilization 91.9% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	148	320	267	275	461	98	2143	1867
v/c Ratio	0.66	0.86	0.84	0.83	0.87	0.60	0.91	0.63
Control Delay (s/veh)	79.2	49.1	84.5	82.2	38.9	47.8	33.2	36.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	79.2	49.1	84.5	82.2	38.9	47.8	33.2	36.5
Queue Length 50th (m)	48.1	45.6	90.3	92.6	59.5	17.1	262.1	137.9
Queue Length 95th (m)	69.1	80.3	126.4	128.4	108.7	m17.8 m#	334.9	182.9
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	324	453	363	380	568	225	2358	2965
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.46	0.71	0.74	0.72	0.81	0.44	0.91	0.63

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2036 PM_Improved
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	139	0	301	432	77	433	92	2014	0	0	1726	29
Future Volume (vph)	139	0	301	432	77	433	92	2014	0	0	1726	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.97	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1678	1511	1767	5142			6461	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.06	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1678	1511	106	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	148	0	320	460	82	461	98	2143	0	0	1836	31
RTOR Reduction (vph)	0	0	164	0	0	234	0	0	0	0	1	0
Lane Group Flow (vph)	148	0	156	267	275	227	98	2143	0	0	1866	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	20.8		20.8	31.6	31.6	31.6	83.6	73.4			73.4	
Effective Green, g (s)	20.8		20.8	31.6	31.6	31.6	83.6	73.4			73.4	
Actuated g/C Ratio	0.13		0.13	0.20	0.20	0.20	0.52	0.46			0.46	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	225		207	316	331	298	161	2358			2963	
v/s Ratio Prot	0.09						c0.04	c0.42			0.29	
v/s Ratio Perm			c0.10	c0.17	0.16	0.15	0.28					
v/c Ratio	0.66		0.75	0.84	0.83	0.76	0.61	0.91			0.63	
Uniform Delay, d1	66.2		67.1	61.8	61.6	60.6	25.6	40.2			33.0	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.59	0.73			1.00	
Incremental Delay, d2	6.8		14.2	18.3	16.1	10.9	2.0	2.2			1.0	
Delay (s)	73.0		81.3	80.1	77.7	71.5	42.8	31.5			34.0	
Level of Service	E		F	F	E	E	D	C			C	
Approach Delay (s/veh)		78.7			75.5			32.0			34.0	
Approach LOS		E			E			C			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			44.4									D
HCM 2000 Volume to Capacity ratio			0.85									
Actuated Cycle Length (s)			160.0							24.0		
Intersection Capacity Utilization			91.9%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

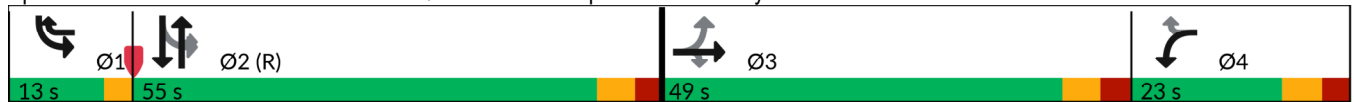
FT_2041 AM
04/17/2026

Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	385	114	152	37	403	1375	10	211	1485
Future Volume (vph)	385	114	152	37	403	1375	10	211	1485
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	49.0	49.0	49.0	23.0	13.0	55.0	55.0	13.0	55.0
Total Split (%)	35.0%	35.0%	35.0%	16.4%	9.3%	39.3%	39.3%	9.3%	39.3%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	27.8	27.8	27.8	10.4	40.9	54.8	54.8	85.2	54.8
Actuated g/C Ratio	0.20	0.20	0.20	0.07	0.29	0.39	0.39	0.61	0.39
v/c Ratio	0.79	0.77	0.37	0.32	0.83	0.77	0.02	0.58	0.82
Control Delay (s/veh)	69.3	67.3	8.2	68.5	51.5	41.7	0.0	60.0	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	67.3	8.2	68.5	51.5	41.7	0.0	60.0	23.3
LOS	E	E	A	E	D	D	A	E	C
Approach Delay (s/veh)		54.3				41.4			27.9
Approach LOS		D				D			C

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 14 (10%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 125
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.83
 Intersection Signal Delay (s/veh): 39.1 Intersection LOS: D
 Intersection Capacity Utilization 79.8% ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	265	272	163	40	433	1478	11	227	1597
v/c Ratio	0.79	0.77	0.37	0.32	0.83	0.77	0.02	0.58	0.82
Control Delay (s/veh)	69.3	67.3	8.2	68.5	51.5	41.7	0.0	60.0	23.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	69.3	67.3	8.2	68.5	51.5	41.7	0.0	60.0	23.3
Queue Length 50th (m)	78.3	80.1	0.0	11.3	93.9	142.2	0.0	46.0	177.5
Queue Length 95th (m)	103.6	105.3	17.9	24.0	#164.6	168.3	0.0	m58.0	m189.5
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	508	532	583	190	521	1918	663	393	1936
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.52	0.51	0.28	0.21	0.83	0.77	0.02	0.58	0.82

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

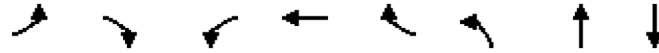
HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2041 AM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	385	114	152	37	0	403	0	1375	10	211	1485	0
Future Volume (vph)	385	114	152	37	0	403	0	1375	10	211	1485	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	0.96	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1696	1776	1566	1668		1581		4902	1526	1750	4948	
Flt Permitted	0.95	0.97	1.00	0.95		1.00		1.00	1.00	0.07	1.00	
Satd. Flow (perm)	1696	1776	1566	1668		1581		4902	1526	138	4948	
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	414	123	163	40	0	433	0	1478	11	227	1597	0
RTOR Reduction (vph)	0	0	131	0	0	63	0	0	7	0	0	0
Lane Group Flow (vph)	265	272	32	40	0	370	0	1478	4	227	1597	0
Confl. Peds. (#/hr)							16		11	11		16
Heavy Vehicles (%)	0%	0%	2%	7%	2%	1%	2%	7%	0%	2%	6%	4%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	27.8	27.8	27.8	8.4		35.3		53.4	53.4	80.3	53.4	
Effective Green, g (s)	27.8	27.8	27.8	8.4		35.3		53.4	53.4	80.3	53.4	
Actuated g/C Ratio	0.20	0.20	0.20	0.06		0.25		0.38	0.38	0.57	0.38	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	336	352	310	100		398		1869	582	388	1887	
v/s Ratio Prot				0.02		c0.18		0.30		0.11	c0.32	
v/s Ratio Perm	c0.16	0.15	0.02			0.06			0.00	0.22		
v/c Ratio	0.79	0.77	0.10	0.40		0.93		0.79	0.01	0.59	0.85	
Uniform Delay, d1	53.3	53.1	45.9	63.4		51.1		38.4	26.9	32.7	39.6	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.92	0.53	
Incremental Delay, d2	11.6	10.1	0.1	2.6		28.2		3.5	0.0	1.0	2.2	
Delay (s)	64.9	63.2	46.1	66.0		79.3		41.9	26.9	63.8	23.1	
Level of Service	E	E	D	E		E		D	C	E	C	
Approach Delay (s/veh)		59.9			78.2			41.8			28.1	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			42.9								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.86									
Actuated Cycle Length (s)			140.0							23.5		
Intersection Capacity Utilization			79.8%								ICU Level of Service	D
Analysis Period (min)			15									
c Critical Lane Group												

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 AM
04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	30	145	428	315	410	129	1369	1891
Future Volume (vph)	30	145	428	315	410	129	1369	1891
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	34.0	34.0	43.0	43.0	43.0	13.0	50.0	50.0
Total Split (%)	24.3%	24.3%	30.7%	30.7%	30.7%	9.3%	35.7%	35.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	9.3	9.3	46.9	46.9	46.9	63.8	48.7	48.7
Actuated g/C Ratio	0.07	0.07	0.34	0.34	0.34	0.46	0.35	0.35
v/c Ratio	0.27	0.62	0.77	0.70	0.56	0.71	0.83	0.96
Control Delay (s/veh)	67.1	20.4	52.8	47.3	7.0	52.0	62.4	53.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.1	20.4	52.8	47.3	7.0	52.0	62.4	53.5
LOS	E	C	D	D	A	D	E	D
Approach Delay (s/veh)				34.7			61.5	53.5
Approach LOS				C			E	D

Intersection Summary

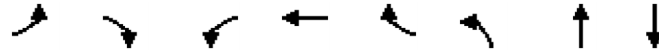
Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 125 (89%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 115
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.96
 Intersection Signal Delay (s/veh): 50.6
 Intersection LOS: D
 Intersection Capacity Utilization 78.4%
 ICU Level of Service D
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 AM
 04/17/2026



Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	32	154	387	403	436	137	1456	2102
v/c Ratio	0.27	0.62	0.77	0.70	0.56	0.71	0.83	0.96
Control Delay (s/veh)	67.1	20.4	52.8	47.3	7.0	52.0	62.4	53.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	67.1	20.4	52.8	47.3	7.0	52.0	62.4	53.5
Queue Length 50th (m)	9.1	0.0	105.8	106.7	4.7	33.9	162.8	108.2
Queue Length 95th (m)	19.8	22.2	146.4	144.1	32.1	m#48.8	#184.3	#217.0
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	344	426	503	579	772	198	1755	2199
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.36	0.77	0.70	0.56	0.69	0.83	0.96

Intersection Summary

- # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 AM
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	30	0	145	428	315	410	129	1369	0	0	1891	85
Future Volume (vph)	30	0	145	428	315	410	129	1369	0	0	1891	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.99	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			0.99	
Flt Protected	0.95		1.00	0.95	0.99	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1785		1566	1501	1729	1486	1750	5043			6304	
Flt Permitted	0.95		1.00	0.95	0.99	1.00	0.08	1.00			1.00	
Satd. Flow (perm)	1785		1566	1501	1729	1486	151	5043			6304	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	32	0	154	455	335	436	137	1456	0	0	2012	90
RTOR Reduction (vph)	0	0	144	0	0	274	0	0	0	0	4	0
Lane Group Flow (vph)	32	0	10	387	403	162	137	1456	0	0	2098	0
Confl. Peds. (#/hr)	2					2	19		11	11		19
Heavy Vehicles (%)	0%	2%	2%	13%	3%	6%	2%	4%	1%	2%	4%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2				2
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	9.3		9.3	46.9	46.9	46.9	59.8	48.8			48.8	
Effective Green, g (s)	9.3		9.3	46.9	46.9	46.9	59.8	48.8			48.8	
Actuated g/C Ratio	0.07		0.07	0.34	0.34	0.34	0.43	0.35			0.35	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	118		104	502	579	497	190	1757			2197	
v/s Ratio Prot	c0.02						c0.06	0.29			c0.33	
v/s Ratio Perm			0.01	c0.26	0.23	0.11	0.25					
v/c Ratio	0.27		0.10	0.77	0.70	0.33	0.72	0.83			0.95	
Uniform Delay, d1	62.1		61.4	41.7	40.4	34.8	31.7	41.8			44.5	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.45	1.40			0.97	
Incremental Delay, d2	1.2		0.4	7.2	3.6	0.4	8.6	3.1			10.0	
Delay (s)	63.4		61.8	48.9	44.0	35.1	54.6	61.6			53.4	
Level of Service	E		E	D	D	D	D	E			D	
Approach Delay (s/veh)		62.1			42.4			61.0			53.4	
Approach LOS		E			D			E			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			53.5								HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio			0.80									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	24.0
Intersection Capacity Utilization			78.4%								ICU Level of Service	D
Analysis Period (min)			15									
c	Critical Lane Group											

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	68	75	209	91	112	47	1762	142	65	1714	129
Future Volume (vph)	98	68	75	209	91	112	47	1762	142	65	1714	129
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	29.1	29.1	29.1	29.1	29.1	29.1	96.6	86.9	86.9	98.0	87.6	87.6
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.69	0.62	0.62	0.70	0.63	0.63
v/c Ratio	0.42	0.19	0.21	0.81	0.26	0.30	0.25	0.58	0.17	0.37	0.57	0.14
Control Delay (s/veh)	51.7	44.3	9.3	74.7	46.1	8.5	9.4	7.0	0.5	13.4	17.7	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.7	44.3	9.3	74.7	46.1	8.5	9.4	7.0	0.5	13.4	17.7	5.6
LOS	D	D	A	E	D	A	A	A	A	B	B	A
Approach Delay (s/veh)		36.4			50.4			6.5			16.7	
Approach LOS		D			D			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 3 (2%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.81
 Intersection Signal Delay (s/veh): 16.5 Intersection LOS: B
 Intersection Capacity Utilization 87.5% ICU Level of Service E
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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





















Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	102	71	78	218	95	117	49	1835	148	68	1785	134
v/c Ratio	0.42	0.19	0.21	0.81	0.26	0.30	0.25	0.58	0.17	0.37	0.57	0.14
Control Delay (s/veh)	51.7	44.3	9.3	74.7	46.1	8.5	9.4	7.0	0.5	13.4	17.7	5.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	51.7	44.3	9.3	74.7	46.1	8.5	9.4	7.0	0.5	13.4	17.7	5.6
Queue Length 50th (m)	26.1	17.2	0.0	61.2	23.5	0.0	1.1	23.5	0.0	5.4	108.3	4.7
Queue Length 95th (m)	40.9	28.6	12.9	84.4	36.4	15.2	m2.4	208.6	m0.5	13.3	152.2	16.9
Internal Link Dist (m)		94.3			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	338	528	486	376	504	509	225	3160	852	206	3153	987
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.13	0.16	0.58	0.19	0.23	0.22	0.58	0.17	0.33	0.57	0.14

Intersection Summary
 m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















FT_2041 AM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	68	75	209	91	112	47	1762	142	65	1714	129
Future Volume (vph)	98	68	75	209	91	112	47	1762	142	65	1714	129
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.98	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.98
Flpb, ped/bikes	0.97	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1586	1812	1481	1725	1731	1463	1733	5092	1322	1637	5043	1524
Fl _t Permitted	0.70	1.00	1.00	0.71	1.00	1.00	0.09	1.00	1.00	0.08	1.00	1.00
Satd. Flow (perm)	1161	1812	1481	1290	1731	1463	161	5092	1322	137	5043	1524
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	102	71	78	218	95	117	49	1835	148	68	1785	134
RTOR Reduction (vph)	0	0	62	0	0	93	0	0	32	0	0	34
Lane Group Flow (vph)	102	71	16	218	95	24	49	1835	116	68	1785	100
Confl. Peds. (#/hr)	34		5	5		34	8		16	16		8
Heavy Vehicles (%)	9%	6%	6%	3%	11%	4%	3%	3%	12%	9%	4%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	29.1	29.1	29.1	29.1	29.1	29.1	92.2	86.3	86.3	93.6	87.0	87.0
Effective Green, g (s)	29.1	29.1	29.1	29.1	29.1	29.1	92.2	86.3	86.3	93.6	87.0	87.0
Actuated g/C Ratio	0.21	0.21	0.21	0.21	0.21	0.21	0.66	0.62	0.62	0.67	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	241	376	307	268	359	304	172	3138	814	162	3133	947
v/s Ratio Prot		0.04			0.05		0.01	c0.36		c0.02	0.35	
v/s Ratio Perm	0.09		0.01	c0.17		0.02	0.18		0.09	0.26		0.07
v/c Ratio	0.42	0.19	0.05	0.81	0.26	0.08	0.28	0.58	0.14	0.42	0.57	0.11
Uniform Delay, d ₁	48.2	45.7	44.4	52.9	46.5	44.7	10.8	16.1	11.3	11.7	15.5	10.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.36	0.03	1.00	1.00	1.00
Incremental Delay, d ₂	1.2	0.2	0.1	17.0	0.4	0.1	0.7	0.6	0.3	1.8	0.8	0.2
Delay (s)	49.4	46.0	44.5	69.8	46.9	44.8	10.6	6.4	0.6	13.5	16.3	11.0
Level of Service	D	D	D	E	D	D	B	A	A	B	B	B
Approach Delay (s/veh)		46.9			57.9			6.1			15.8	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			17.1									B
HCM 2000 Volume to Capacity ratio			0.63									
Actuated Cycle Length (s)			140.0								18.0	
Intersection Capacity Utilization			87.5%								E	
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FT_2041 AM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	91	314	0	11	651	25	1	0	2	51	3	213
Future Volume (Veh/h)	91	314	0	11	651	25	1	0	2	51	3	213
Sign Control		Free			Free			Stop			Stop	
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)	101	349	0	12	723	28	1	0	2	57	3	237
Pedestrians												1
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.77						0.77	0.77		0.77	0.77	0.77
vC, conflicting volume	752			349			1537	1327	349	1315	1313	738
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	532			349			1547	1276	349	1261	1258	514
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.2	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.6	4.0	3.3
p0 queue free %	87			99			97	100	100	43	97	45
cM capacity (veh/h)	800			1221			29	111	699	100	115	433
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	101	349	12	751	3	57	240					
Volume Left	101	0	12	0	1	57	0					
Volume Right	0	0	0	28	2	0	237					
cSH	800	1700	1221	1700	80	100	418					
Volume to Capacity	0.13	0.21	0.01	0.44	0.04	0.57	0.57					
Queue Length 95th (m)	3.5	0.0	0.2	0.0	0.9	21.4	27.9					
Control Delay (s/veh)	10.2	0.0	8.0	0.0	51.7	81.2	24.6					
Lane LOS	B		A		F	F	C					
Approach Delay (s/veh)	2.3		0.1		51.7	35.4						
Approach LOS					F	E						
Intersection Summary												
Average Delay			7.8									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

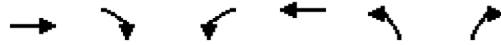
FT_2041 AM
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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations		↗		↑↑↑	↑↑↑	↗		
Traffic Volume (veh/h)	0	6	0	1961	2035	5		
Future Volume (Veh/h)	0	6	0	1961	2035	5		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93		
Hourly flow rate (vph)	0	6	0	2109	2188	5		
Pedestrians	1							
Lane Width (m)	3.6							
Walking Speed (m/s)	1.2							
Percent Blockage	0							
Right turn flare (veh)								
Median type				None	None			
Median storage (veh)								
Upstream signal (m)				113	172			
pX, platoon unblocked	0.84	0.79	0.79					
vC, conflicting volume	2892	730	2194					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	911	0	1585					
tC, single (s)	6.8	6.9	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	99	100					
cM capacity (veh/h)	230	857	325					
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	6	703	703	703	729	729	729	5
Volume Left	0	0	0	0	0	0	0	0
Volume Right	6	0	0	0	0	0	0	5
cSH	857	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.41	0.41	0.41	0.43	0.43	0.43	0.00
Queue Length 95th (m)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	9.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s/veh)	9.2	0.0			0.0			
Approach LOS	A							
Intersection Summary								
Average Delay	0.0							
Intersection Capacity Utilization	49.3%			ICU Level of Service			A	
Analysis Period (min)	15							

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access 1 & Leanne Blvd












FT_2041 AM
 04/17/2026



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↘	
Traffic Volume (veh/h)	204	1	11	289	4	42
Future Volume (Veh/h)	204	1	11	289	4	42
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	240	1	13	340	5	49
Pedestrians					3	
Lane Width (m)					3.6	
Walking Speed (m/s)					1.2	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			244			440 124
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			244			440 124
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			99			99 95
cM capacity (veh/h)			1331			539 908
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	160	81	126	227	54	
Volume Left	0	0	13	0	5	
Volume Right	0	1	0	0	49	
cSH	1700	1700	1331	1700	854	
Volume to Capacity	0.09	0.05	0.01	0.13	0.06	
Queue Length 95th (m)	0.0	0.0	0.2	0.0	1.6	
Control Delay (s/veh)	0.0	0.0	0.9	0.0	9.5	
Lane LOS			A	A		
Approach Delay (s/veh)	0.0	0.3		9.5		
Approach LOS					A	
Intersection Summary						
Average Delay			1.0			
Intersection Capacity Utilization			26.0%	ICU Level of Service		A
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & Site Access 5

FT_2041 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	3	4	126	1	1	272
Future Volume (Veh/h)	3	4	126	1	1	272
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	4	5	150	1	1	324
Pedestrians	2					
Lane Width (m)	3.6					
Walking Speed (m/s)	1.2					
Percent Blockage	0					
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	293					
pX, platoon unblocked						
vC, conflicting volume	317	78			153	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	317	78			153	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	656	972			1423	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	100	51	109	216	
Volume Left	4	0	0	1	0	
Volume Right	5	0	1	0	0	
cSH	801	1700	1700	1423	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.13	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.5	0.0	0.0	0.1	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.5	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			18.2%		ICU Level of Service	A
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 104: Leanne Blvd & Site Access 2

FT_2041 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	4	140	1	1	262
Future Volume (Veh/h)	3	4	140	1	1	262
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	4	5	167	1	1	312
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	188					
pX, platoon unblocked						
vC, conflicting volume	326	84			168	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	84			168	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	643	958			1407	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	9	111	57	105	208	
Volume Left	4	0	0	1	0	
Volume Right	5	0	1	0	0	
cSH	787	1700	1700	1407	1700	
Volume to Capacity	0.01	0.07	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.1	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.6	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			17.9%	ICU Level of Service	A	
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 105: Leanne Blvd & Site Access 3

FT_2041 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	4	5	136	1	2	263
Future Volume (Veh/h)	4	5	136	1	2	263
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	5	6	162	1	2	313
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	222					
pX, platoon unblocked						
vC, conflicting volume	323	82			163	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	323	82			163	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	645	962			1413	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	11	108	55	106	209	
Volume Left	5	0	0	2	0	
Volume Right	6	0	1	0	0	
cSH	786	1700	1700	1413	1700	
Volume to Capacity	0.01	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.3	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.6	0.0	0.0	0.2	0.0	
Lane LOS	A			A		
Approach Delay (s/veh)	9.6	0.0		0.1		
Approach LOS	A					
Intersection Summary						
Average Delay			0.3			
Intersection Capacity Utilization			18.7%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 106: Leanne Blvd & Site Access 4

FT_2041 AM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	10	127	3	2	265
Future Volume (Veh/h)	8	10	127	3	2	265
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Hourly flow rate (vph)	10	12	151	4	2	315
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	254					
pX, platoon unblocked						
vC, conflicting volume	315	78			155	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	315	78			155	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	99			100	
cM capacity (veh/h)	653	968			1423	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	22	101	54	107	210	
Volume Left	10	0	0	2	0	
Volume Right	12	0	4	0	0	
cSH	794	1700	1700	1423	1700	
Volume to Capacity	0.03	0.06	0.03	0.00	0.12	
Queue Length 95th (m)	0.7	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	9.7	0.0	0.0	0.2	0.0	
Lane LOS	A		A			
Approach Delay (s/veh)	9.7	0.0	0.1			
Approach LOS	A					
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization			18.7%		ICU Level of Service	A
Analysis Period (min)			15			

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2041 PM
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	805	335	142	25	375	1598	62	354	1540
Future Volume (vph)	805	335	142	25	375	1598	62	354	1540
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	46.0	46.0	46.0	25.0	22.0	47.0	47.0	22.0	47.0
Total Split (%)	32.9%	32.9%	32.9%	17.9%	15.7%	33.6%	33.6%	15.7%	33.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	39.0	39.0	39.0	10.0	42.8	41.7	41.7	77.8	41.7
Actuated g/C Ratio	0.28	0.28	0.28	0.07	0.31	0.30	0.30	0.56	0.30
v/c Ratio	1.26	1.20	0.29	0.21	0.72	1.07	0.12	0.76	1.03
Control Delay (s/veh)	173.5	152.5	14.2	65.8	42.0	92.1	1.1	42.2	86.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	173.5	152.5	14.2	65.8	42.0	92.1	1.1	42.2	86.9
LOS	F	F	B	E	D	F	A	D	F
Approach Delay (s/veh)		146.4				88.7			78.5
Approach LOS		F				F			E

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 97 (69%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.26
 Intersection Signal Delay (s/veh): 95.7 Intersection LOS: F
 Intersection Capacity Utilization 102.8% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way





Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	575	588	145	26	383	1631	63	361	1571
v/c Ratio	1.26	1.20	0.29	0.21	0.72	1.07	0.12	0.76	1.03
Control Delay (s/veh)	173.5	152.5	14.2	65.8	42.0	92.1	1.1	42.2	86.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	173.5	152.5	14.2	65.8	42.0	92.1	1.1	42.2	86.9
Queue Length 50th (m)	~220.1	~218.6	8.7	7.3	78.3	~198.1	0.0	93.0	~189.5
Queue Length 95th (m)	#298.3	#296.8	27.0	17.7	117.7	#229.1	1.5 m	#138.2	#221.2
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	458	489	506	218	535	1518	541	477	1518
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.26	1.20	0.29	0.12	0.72	1.07	0.12	0.76	1.03

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.























95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

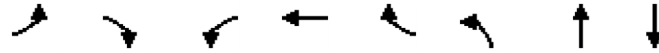
HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2041 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	805	335	142	25	0	375	0	1598	62	354	1540	0
Future Volume (vph)	805	335	142	25	0	375	0	1598	62	354	1540	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.98	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1755	1545	1700		1566		5092	1558	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.10	1.00	
Satd. Flow (perm)	1646	1755	1545	1700		1566		5092	1558	193	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	821	342	145	26	0	383	0	1631	63	361	1571	0
RTOR Reduction (vph)	0	0	76	0	0	59	0	0	45	0	0	0
Lane Group Flow (vph)	575	588	69	26	0	324	0	1631	18	361	1571	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt		NA
Protected Phases		3		4		1		2		1		2
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	39.0	39.0	39.0	6.0		38.5		39.0	39.0	71.5	39.0	
Effective Green, g (s)	39.0	39.0	39.0	6.0		38.5		39.0	39.0	71.5	39.0	
Actuated g/C Ratio	0.28	0.28	0.28	0.04		0.28		0.28	0.28	0.51	0.28	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	458	488	430	72		430		1418	434	468	1418	
v/s Ratio Prot				0.02		c0.17		c0.32		c0.18	0.31	
v/s Ratio Perm	c0.35	0.33	0.04			0.03			0.01	0.22		
v/c Ratio	1.26	1.20	0.16	0.36		0.75		1.15	0.04	0.77	1.11	
Uniform Delay, d1	50.5	50.5	38.1	65.1		46.4		50.5	36.8	37.6	50.5	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.28	
Incremental Delay, d2	131.8	110.3	0.2	3.1		7.3		76.2	0.2	4.8	55.5	
Delay (s)	182.3	160.8	38.3	68.2		53.7		126.7	37.0	42.5	119.9	
Level of Service	F	F	D	E		D		F	D	D	F	
Approach Delay (s/veh)		156.7			54.6			123.4			105.4	
Approach LOS		F			D			F			F	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			119.8									F
HCM 2000 Volume to Capacity ratio			1.06									
Actuated Cycle Length (s)			140.0						23.5			
Intersection Capacity Utilization			102.8%									G
Analysis Period (min)			15									
c Critical Lane Group												

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 PM
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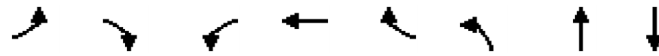
Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	146	315	471	84	471	96	2063	1767
Future Volume (vph)	146	315	471	84	471	96	2063	1767
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	33.0	33.0	43.0	43.0	43.0	11.0	53.0	53.0
Total Split (%)	23.6%	23.6%	30.7%	30.7%	30.7%	7.9%	37.9%	37.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	22.8	22.8	32.7	32.7	32.7	64.5	52.6	52.6
Actuated g/C Ratio	0.16	0.16	0.23	0.23	0.23	0.46	0.38	0.38
v/c Ratio	0.55	0.91	0.78	0.76	0.95	0.65	1.14	0.79
Control Delay (s/veh)	60.9	63.3	64.7	63.0	56.0	34.7	95.4	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.9	63.3	64.7	63.0	56.0	34.7	95.4	37.2
LOS	E	E	E	E	E	C	F	D
Approach Delay (s/veh)				60.3			92.7	37.2
Approach LOS				E			F	D

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 131 (94%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.14
 Intersection Signal Delay (s/veh): 65.7
 Intersection LOS: E
 Intersection Capacity Utilization 94.9%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp





Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	155	335	291	299	501	102	2195	1912
v/c Ratio	0.55	0.91	0.78	0.76	0.95	0.65	1.14	0.79
Control Delay (s/veh)	60.9	63.3	64.7	63.0	56.0	34.7	95.4	37.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	60.9	63.3	64.7	63.0	56.0	34.7	95.4	37.2
Queue Length 50th (m)	40.9	60.2	81.3	83.2	83.8	11.1	~300.6	128.1
Queue Length 95th (m)	64.7	#111.2	118.3	120.1	#152.8	m10.1	m#257.6	129.5
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	321	402	411	431	559	160	1930	2425
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	2	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.49	0.83	0.71	0.69	0.90	0.64	1.14	0.79

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	146	0	315	471	84	471	96	2063	0	0	1767	30
Future Volume (vph)	146	0	315	471	84	471	96	2063	0	0	1767	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.98	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1514	1767	5142			6461	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.08	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1514	141	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	155	0	335	501	89	501	102	2195	0	0	1880	32
RTOR Reduction (vph)	0	0	109	0	0	176	0	0	0	0	1	0
Lane Group Flow (vph)	155	0	226	291	299	325	102	2195	0	0	1911	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3				4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	22.8		22.8	32.7	32.7	32.7	60.5	52.6			52.6	
Effective Green, g (s)	22.8		22.8	32.7	32.7	32.7	60.5	52.6			52.6	
Actuated g/C Ratio	0.16		0.16	0.23	0.23	0.23	0.43	0.38			0.38	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	282		260	373	391	353	152	1931			2427	
v/s Ratio Prot	0.09						c0.04	c0.43			0.30	
v/s Ratio Perm			c0.14	0.18	0.18	c0.22	0.25					
v/c Ratio	0.55		0.87	0.78	0.76	0.92	0.67	1.14			0.79	
Uniform Delay, d1	53.9		57.2	50.3	50.1	52.4	29.1	43.7			38.7	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.32	0.77			0.86	
Incremental Delay, d2	2.2		25.1	10.1	8.6	28.9	1.1	62.2			2.6	
Delay (s)	56.1		82.3	60.4	58.7	81.3	39.4	95.9			35.7	
Level of Service	E		F	E	E	F	D	F			D	
Approach Delay (s/veh)		74.0			69.5			93.4			35.7	
Approach LOS		E			E			F			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			68.2									E
HCM 2000 Volume to Capacity ratio			0.99									
Actuated Cycle Length (s)			140.0							24.0		
Intersection Capacity Utilization			94.9%									F
Analysis Period (min)			15									
c Critical Lane Group												

Timings
3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

FT_2041 PM
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	152	56	163	51	87	126	2083	240	88	1185	82
Future Volume (vph)	125	152	56	163	51	87	126	2083	240	88	1185	82
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Detector Phase	8	8	8	4	4	4	1	6	6	5	2	2
Switch Phase												
Minimum Initial (s)	10.0	10.0	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0	10.0
Minimum Split (s)	48.2	48.2	48.2	48.2	48.2	48.2	10.0	38.8	38.8	10.0	38.8	38.8
Total Split (s)	49.0	49.0	49.0	49.0	49.0	49.0	13.0	78.0	78.0	13.0	78.0	78.0
Total Split (%)	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	9.3%	55.7%	55.7%	9.3%	55.7%	55.7%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.2	4.2	3.0	4.2	4.2
All-Red Time (s)	4.2	4.2	4.2	4.2	4.2	4.2	0.0	2.6	2.6	0.0	2.6	2.6
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lead/Lag							Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?												
Recall Mode	None	None	None	None	None	None	None	C-Max	C-Max	None	C-Max	C-Max
Act Effct Green (s)	26.6	26.6	26.6	26.6	26.6	26.6	99.4	86.6	86.6	99.0	86.4	86.4
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.71	0.62	0.62	0.71	0.62	0.62
v/c Ratio	0.55	0.45	0.18	0.86	0.15	0.26	0.40	0.69	0.27	0.56	0.39	0.09
Control Delay (s/veh)	58.4	52.7	10.8	90.0	45.1	9.6	6.9	7.9	0.5	34.0	15.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.4	52.7	10.8	90.0	45.1	9.6	6.9	8.3	0.5	34.0	15.1	3.4
LOS	E	D	B	F	D	A	A	A	A	C	B	A
Approach Delay (s/veh)		47.8			59.1			7.4			15.6	
Approach LOS		D			E			A			B	

Intersection Summary

Cycle Length: 140
 Actuated Cycle Length: 140
 Offset: 8 (6%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 110
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay (s/veh): 16.5 Intersection LOS: B
 Intersection Capacity Utilization 103.6% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr



Queues
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	132	160	59	172	54	92	133	2193	253	93	1247	86
v/c Ratio	0.55	0.45	0.18	0.86	0.15	0.26	0.40	0.69	0.27	0.56	0.39	0.09
Control Delay (s/veh)	58.4	52.7	10.8	90.0	45.1	9.6	6.9	7.9	0.5	34.0	15.1	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
Total Delay (s/veh)	58.4	52.7	10.8	90.0	45.1	9.6	6.9	8.3	0.5	34.0	15.1	3.4
Queue Length 50th (m)	35.1	41.7	0.0	49.1	13.2	0.0	4.1	32.0	0.7	9.3	63.4	0.2
Queue Length 95th (m)	52.8	59.2	11.7	71.9	23.8	14.2	m4.9	m215.2	m0.0	29.9	94.0	8.9
Internal Link Dist (m)		93.8			110.5			147.8			261.0	
Turn Bay Length (m)	95.0			50.0		35.0	100.0		50.0	115.0		60.0
Base Capacity (vph)	369	543	474	305	559	497	346	3180	951	190	3174	962
Starvation Cap Reductn	0	0	0	0	0	0	0	408	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.36	0.29	0.12	0.56	0.10	0.19	0.38	0.79	0.27	0.49	0.39	0.09

Intersection Summary

m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 3: Erin Mills Pkwy & Leanne Blvd/Fowler Dr




















FT_2041 PM
 04/17/2026

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	125	152	56	163	51	87	126	2083	240	88	1185	82
Future Volume (vph)	125	152	56	163	51	87	126	2083	240	88	1185	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5	3.5	3.7	3.5
Total Lost time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	1.00	1.00	0.91	1.00
Frpb, ped/bikes	1.00	1.00	0.97	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.97
Flpb, ped/bikes	0.96	1.00	1.00	0.98	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85	1.00	1.00	0.85
Fl _t Protected	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00
Satd. Flow (prot)	1667	1865	1484	1703	1921	1484	1749	5142	1465	1785	5142	1508
Fl _t Permitted	0.72	1.00	1.00	0.59	1.00	1.00	0.18	1.00	1.00	0.05	1.00	1.00
Satd. Flow (perm)	1267	1865	1484	1049	1921	1484	338	5142	1465	87	5142	1508
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	132	160	59	172	54	92	133	2193	253	93	1247	86
RTOR Reduction (vph)	0	0	48	0	0	75	0	0	46	0	0	32
Lane Group Flow (vph)	132	160	11	172	54	17	133	2193	207	93	1247	54
Confl. Peds. (#/hr)	39		21	21		39	16		16	16		16
Heavy Vehicles (%)	3%	3%	4%	3%	0%	2%	2%	2%	1%	0%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	5	0	0	6
Turn Type	Perm	NA	Perm	Perm	NA	Perm	pm+pt	NA	Perm	pm+pt	NA	Perm
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8		8	4		4	6		6	2		2
Actuated Green, G (s)	26.6	26.6	26.6	26.6	26.6	26.6	95.6	86.6	86.6	95.2	86.4	86.4
Effective Green, g (s)	26.6	26.6	26.6	26.6	26.6	26.6	95.6	86.6	86.6	95.2	86.4	86.4
Actuated g/C Ratio	0.19	0.19	0.19	0.19	0.19	0.19	0.68	0.62	0.62	0.68	0.62	0.62
Clearance Time (s)	8.2	8.2	8.2	8.2	8.2	8.2	3.0	6.8	6.8	3.0	6.8	6.8
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	240	354	281	199	364	281	321	3180	906	165	3173	930
v/s Ratio Prot		0.09			0.03		0.03	c0.43		c0.04	0.24	
v/s Ratio Perm	0.10		0.01	c0.16		0.01	0.26		0.14	0.35		0.04
v/c Ratio	0.55	0.45	0.04	0.86	0.15	0.06	0.41	0.69	0.23	0.56	0.39	0.06
Uniform Delay, d1	51.3	50.2	46.3	55.0	47.3	46.5	8.4	17.8	11.9	21.6	13.5	10.6
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.40	0.06	1.00	1.00	1.00
Incremental Delay, d2	2.7	0.9	0.1	30.0	0.2	0.1	0.1	0.1	0.1	4.4	0.4	0.1
Delay (s)	54.0	51.2	46.3	84.9	47.4	46.6	8.2	7.2	0.7	25.9	13.9	10.8
Level of Service	D	D	D	F	D	D	A	A	A	C	B	B
Approach Delay (s/veh)		51.4			67.5			6.6			14.5	
Approach LOS		D			E			A			B	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			16.5								HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			140.0								Sum of lost time (s)	18.0
Intersection Capacity Utilization			103.6%								ICU Level of Service	G
Analysis Period (min)			15									

c Critical Lane Group

HCM Unsignalized Intersection Capacity Analysis
 4: Carpool Lot Access/Leanne Blvd & N Sheridan Way

FT_2041 PM
 04/17/2026

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	329	593	4	6	209	84	1	6	5	33	1	62
Future Volume (Veh/h)	329	593	4	6	209	84	1	6	5	33	1	62
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Hourly flow rate (vph)	339	611	4	6	215	87	1	6	5	34	1	64
Pedestrians												2
Lane Width (m)												3.6
Walking Speed (m/s)												1.2
Percent Blockage												0
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (m)					188							
pX, platoon unblocked	0.98						0.98	0.98		0.98	0.98	0.98
vC, conflicting volume	304			615			1583	1607	613	1570	1566	261
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	275			615			1584	1610	613	1571	1567	231
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	73			99			98	92	99	47	99	92
cM capacity (veh/h)	1250			974			62	75	496	65	79	788
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	SB 1	SB 2					
Volume Total	339	615	6	302	12	34	65					
Volume Left	339	0	6	0	1	34	0					
Volume Right	0	4	0	87	5	0	64					
cSH	1250	1700	974	1700	113	65	693					
Volume to Capacity	0.27	0.36	0.01	0.18	0.11	0.53	0.09					
Queue Length 95th (m)	8.8	0.0	0.1	0.0	2.8	17.1	2.5					
Control Delay (s/veh)	8.9	0.0	8.7	0.0	40.8	110.7	10.7					
Lane LOS	A		A		E	F	B					
Approach Delay (s/veh)	3.2		0.2		40.8	45.1						
Approach LOS					E	E						
Intersection Summary												
Average Delay			5.9									
Intersection Capacity Utilization			Err%	ICU Level of Service	H							
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 101: Erin Mills Pkwy & Site Access

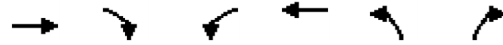
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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations		↗		↑↑↑	↑↑↑	↗		
Traffic Volume (veh/h)	0	5	0	2552	1446	12		
Future Volume (Veh/h)	0	5	0	2552	1446	12		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95		
Hourly flow rate (vph)	0	5	0	2686	1522	13		
Pedestrians	7							
Lane Width (m)	3.6							
Walking Speed (m/s)	1.2							
Percent Blockage	1							
Right turn flare (veh)								
Median type				None	None			
Median storage veh								
Upstream signal (m)				113	172			
pX, platoon unblocked	0.69	0.88	0.88					
vC, conflicting volume	2424	514	1542					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	309	0	1137					
tC, single (s)	6.8	6.9	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	99	100					
cM capacity (veh/h)	452	948	534					
Direction, Lane #	EB 1	NB 1	NB 2	NB 3	SB 1	SB 2	SB 3	SB 4
Volume Total	5	895	895	895	507	507	507	13
Volume Left	0	0	0	0	0	0	0	0
Volume Right	5	0	0	0	0	0	0	13
cSH	948	1700	1700	1700	1700	1700	1700	1700
Volume to Capacity	0.01	0.53	0.53	0.53	0.30	0.30	0.30	0.01
Queue Length 95th (m)	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Control Delay (s/veh)	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lane LOS	A							
Approach Delay (s/veh)	8.8	0.0			0.0			
Approach LOS	A							
Intersection Summary								
Average Delay	0.0							
Intersection Capacity Utilization	52.6%			ICU Level of Service			A	
Analysis Period (min)	15							

HCM Unsignalized Intersection Capacity Analysis
 102: North Site Access 1 & Leanne Blvd










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Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑	↑↑	
Traffic Volume (veh/h)	315	5	31	215	3	24
Future Volume (Veh/h)	315	5	31	215	3	24
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	371	6	36	253	4	28
Pedestrians						8
Lane Width (m)						3.6
Walking Speed (m/s)						1.2
Percent Blockage						1
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	118					
pX, platoon unblocked						
vC, conflicting volume			385			581 197
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			385			581 197
tC, single (s)			4.1			6.8 6.9
tC, 2 stage (s)						
tF (s)			2.2			3.5 3.3
p0 queue free %			97			99 97
cM capacity (veh/h)			1177			433 813
Direction, Lane #	EB 1	EB 2	WB 1	WB 2	NB 1	
Volume Total	247	130	120	169	32	
Volume Left	0	0	36	0	4	
Volume Right	0	6	0	0	28	
cSH	1700	1700	1177	1700	732	
Volume to Capacity	0.15	0.08	0.03	0.10	0.04	
Queue Length 95th (m)	0.0	0.0	0.8	0.0	1.1	
Control Delay (s/veh)	0.0	0.0	2.6	0.0	10.1	
Lane LOS	A			B		
Approach Delay (s/veh)	0.0		1.1	10.1		
Approach LOS				B		
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization			30.1%	ICU Level of Service		A
Analysis Period (min)			15			











HCM Unsignalized Intersection Capacity Analysis
 103: Leanne Blvd & Site Access 5

FT_2041 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	2	401	4	2	95
Future Volume (Veh/h)	2	2	401	4	2	95
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	2	461	5	2	109
Pedestrians	2		1		1	
Lane Width (m)	3.6		3.6		3.6	
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)	293					
pX, platoon unblocked						
vC, conflicting volume	525	236			468	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	525	236			468	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	485	770			1102	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	307	159	38	73	
Volume Left	2	0	0	2	0	
Volume Right	2	0	5	0	0	
cSH	595	1700	1700	1102	1700	
Volume to Capacity	0.01	0.18	0.09	0.00	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.0	0.0	
Control Delay (s/veh)	11.1	0.0	0.0	0.4	0.0	
Lane LOS	B		A			
Approach Delay (s/veh)	11.1	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay			0.1			
Intersection Capacity Utilization			21.7%		ICU Level of Service	A
Analysis Period (min)			15			










HCM Unsignalized Intersection Capacity Analysis
 104: Leanne Blvd & Site Access 2

FT_2041 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	2	399	3	6	100
Future Volume (Veh/h)	2	2	399	3	6	100
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	2	2	459	3	7	115
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	188					
pX, platoon unblocked						
vC, conflicting volume	532	231			462	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	532	231			462	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			99	
cM capacity (veh/h)	474	771			1095	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	4	306	156	45	77	
Volume Left	2	0	0	7	0	
Volume Right	2	0	3	0	0	
cSH	587	1700	1700	1095	1700	
Volume to Capacity	0.01	0.18	0.09	0.01	0.05	
Queue Length 95th (m)	0.2	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	11.2	0.0	0.0	1.3	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.2	0.0			0.5	
Approach LOS	B					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			21.1%	ICU Level of Service	A	
Analysis Period (min)			15			












HCM Unsignalized Intersection Capacity Analysis
 105: Leanne Blvd & Site Access 3

FT_2041 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	3	399	4	8	94
Future Volume (Veh/h)	3	3	399	4	8	94
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	3	3	459	5	9	108
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	221					
pX, platoon unblocked						
vC, conflicting volume	534	232			464	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	534	232			464	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	100			99	
cM capacity (veh/h)	472	770			1094	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	6	306	158	45	72	
Volume Left	3	0	0	9	0	
Volume Right	3	0	5	0	0	
cSH	586	1700	1700	1094	1700	
Volume to Capacity	0.01	0.18	0.09	0.01	0.04	
Queue Length 95th (m)	0.2	0.0	0.0	0.2	0.0	
Control Delay (s/veh)	11.2	0.0	0.0	1.7	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.2	0.0			0.7	
Approach LOS	B					
Intersection Summary						
Average Delay			0.2			
Intersection Capacity Utilization			21.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
 106: Leanne Blvd & Site Access 4

FT_2041 PM
 04/17/2026

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations			 			 
Traffic Volume (veh/h)	5	6	397	9	3	92
Future Volume (Veh/h)	5	6	397	9	3	92
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87
Hourly flow rate (vph)	6	7	456	10	3	106
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh						
Upstream signal (m)	253					
pX, platoon unblocked						
vC, conflicting volume	520	233			466	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	520	233			466	
tC, single (s)	6.8	6.9			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	484	769			1092	
Direction, Lane #	WB 1	NB 1	NB 2	SB 1	SB 2	
Volume Total	13	304	162	38	71	
Volume Left	6	0	0	3	0	
Volume Right	7	0	10	0	0	
cSH	605	1700	1700	1092	1700	
Volume to Capacity	0.02	0.18	0.10	0.00	0.04	
Queue Length 95th (m)	0.5	0.0	0.0	0.1	0.0	
Control Delay (s/veh)	11.1	0.0	0.0	0.7	0.0	
Lane LOS	B			A		
Approach Delay (s/veh)	11.1	0.0	0.2			
Approach LOS	B					
Intersection Summary						
Average Delay	0.3					
Intersection Capacity Utilization	21.3%		ICU Level of Service		A	
Analysis Period (min)	15					

Timings
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2041 PM_Improved
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations									
Traffic Volume (vph)	805	335	142	25	375	1598	62	354	1540
Future Volume (vph)	805	335	142	25	375	1598	62	354	1540
Turn Type	Perm	NA	Perm	Prot	pm+ov	NA	Perm	pm+pt	NA
Protected Phases		3		4	1	2		1	2
Permitted Phases	3		3		4		2	2	
Detector Phase	3	3	3	4	1	2	2	1	2
Switch Phase									
Minimum Initial (s)	10.0	10.0	10.0	10.0	7.0	10.0	10.0	7.0	10.0
Minimum Split (s)	46.0	46.0	46.0	17.0	10.0	37.5	37.5	10.0	37.5
Total Split (s)	59.0	59.0	59.0	17.0	27.0	57.0	57.0	27.0	57.0
Total Split (%)	36.9%	36.9%	36.9%	10.6%	16.9%	35.6%	35.6%	16.9%	35.6%
Yellow Time (s)	4.0	4.0	4.0	4.0	3.0	4.0	4.0	3.0	4.0
All-Red Time (s)	3.0	3.0	3.0	3.0	0.0	2.5	2.5	0.0	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	3.0	6.5	6.5	3.0	6.5
Lead/Lag	Lead	Lead	Lead	Lag	Lead	Lag	Lag	Lead	Lag
Lead-Lag Optimize?									
Recall Mode	None	None	None	None	None	C-Max	C-Max	None	C-Max
Act Effct Green (s)	52.0	52.0	52.0	10.0	41.0	50.5	50.5	84.8	50.5
Actuated g/C Ratio	0.33	0.33	0.33	0.06	0.26	0.32	0.32	0.53	0.32
v/c Ratio	1.08	1.03	0.26	0.25	0.84	1.01	0.11	0.91	0.98
Control Delay (s/veh)	111.2	97.8	15.5	77.5	63.0	79.6	2.3	81.8	56.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	111.2	97.8	15.5	77.5	63.0	79.6	2.3	81.8	56.2
LOS	F	F	B	E	E	E	A	F	E
Approach Delay (s/veh)		94.5				76.8			61.0
Approach LOS		F				E			E

Intersection Summary

Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 0 (0%), Referenced to phase 2:NBSB and 6:, Start of Green
 Natural Cycle: 135
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.08
 Intersection Signal Delay (s/veh): 74.4 Intersection LOS: E
 Intersection Capacity Utilization 102.8% ICU Level of Service G
 Analysis Period (min) 15

Splits and Phases: 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way



Queues
1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

FT_2041 PM_Improved
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Lane Group	EBL	EBT	EBR	WBL	WBR	NBT	NBR	SBL	SBT
Lane Group Flow (vph)	575	588	145	26	383	1631	63	361	1571
v/c Ratio	1.08	1.03	0.26	0.25	0.84	1.01	0.11	0.91	0.98
Control Delay (s/veh)	111.2	97.8	15.5	77.5	63.0	79.6	2.3	81.8	56.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	111.2	97.8	15.5	77.5	63.0	79.6	2.3	81.8	56.2
Queue Length 50th (m)	~224.5	~220.9	11.5	8.5	102.1	~210.2	0.0	~123.7	123.9
Queue Length 95th (m)	#305.5	#302.0	29.8	19.6	#157.8	#240.6	4.2 m	#188.6	#220.1
Internal Link Dist (m)		250.1				204.6			263.0
Turn Bay Length (m)			85.0	195.0			55.0	110.0	
Base Capacity (vph)	534	570	566	106	454	1607	556	397	1607
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	1.08	1.03	0.26	0.25	0.84	1.01	0.11	0.91	0.98

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 1: Southdown Rd & QEW EB Off Ramp/S Sheridan Way

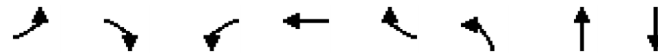
FT_2041 PM_Improved
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖		↗		↑↑↑	↗	↘	↑↑↑	
Traffic Volume (vph)	805	335	142	25	0	375	0	1598	62	354	1540	0
Future Volume (vph)	805	335	142	25	0	375	0	1598	62	354	1540	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.7	3.5	3.5	3.5	3.5	3.7	3.7	3.5	3.5	3.7	3.7
Total Lost time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Lane Util. Factor	0.95	0.95	1.00	1.00		1.00		0.91	1.00	1.00	0.91	
Frpb, ped/bikes	1.00	1.00	0.99	1.00		1.00		1.00	0.97	1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Frt	1.00	1.00	0.85	1.00		0.85		1.00	0.85	1.00	1.00	
Flt Protected	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.95	1.00	
Satd. Flow (prot)	1646	1755	1545	1700		1566		5092	1557	1785	5092	
Flt Permitted	0.95	0.98	1.00	0.95		1.00		1.00	1.00	0.08	1.00	
Satd. Flow (perm)	1646	1755	1545	1700		1566		5092	1557	158	5092	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	821	342	145	26	0	383	0	1631	63	361	1571	0
RTOR Reduction (vph)	0	0	65	0	0	55	0	0	44	0	0	0
Lane Group Flow (vph)	575	588	80	26	0	328	0	1631	19	361	1571	0
Confl. Peds. (#/hr)			1	1			10		2	2		10
Heavy Vehicles (%)	3%	1%	2%	5%	2%	2%	2%	3%	0%	0%	3%	3%
Turn Type	Perm	NA	Perm	Prot		pm+ov		NA	Perm	pm+pt	NA	
Protected Phases		3		4		1		2		1	2	
Permitted Phases	3		3			4			2	2		
Actuated Green, G (s)	52.0	52.0	52.0	6.0		36.8		47.7	47.7	78.5	47.7	
Effective Green, g (s)	52.0	52.0	52.0	6.0		36.8		47.7	47.7	78.5	47.7	
Actuated g/C Ratio	0.33	0.33	0.33	0.04		0.23		0.30	0.30	0.49	0.30	
Clearance Time (s)	7.0	7.0	7.0	7.0		3.0		6.5	6.5	3.0	6.5	
Vehicle Extension (s)	3.0	3.0	3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	534	570	502	63		360		1518	464	390	1518	
v/s Ratio Prot				0.02		c0.18		c0.32		c0.18	0.31	
v/s Ratio Perm	c0.35	0.33	0.05			0.03			0.01	0.28		
v/c Ratio	1.08	1.03	0.16	0.41		0.91		1.07	0.04	0.93	1.03	
Uniform Delay, d1	54.0	54.0	38.4	75.3		60.0		56.2	39.9	50.6	56.2	
Progression Factor	1.00	1.00	1.00	1.00		1.00		1.00	1.00	1.44	0.78	
Incremental Delay, d2	61.2	46.0	0.1	4.3		25.9		46.0	0.2	21.2	28.9	
Delay (s)	115.2	100.0	38.6	79.6		85.9		102.1	40.1	94.2	72.5	
Level of Service	F	F	D	E		F		F	D	F	E	
Approach Delay (s/veh)		99.9			85.5			99.8			76.5	
Approach LOS		F			F			F			E	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			90.3									F
HCM 2000 Volume to Capacity ratio			1.03									
Actuated Cycle Length (s)			160.0							23.5		
Intersection Capacity Utilization			102.8%									G
Analysis Period (min)			15									
c Critical Lane Group												

Timings
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 PM_Improved
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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Configurations								
Traffic Volume (vph)	146	315	471	84	471	96	2063	1767
Future Volume (vph)	146	315	471	84	471	96	2063	1767
Turn Type	Prot	Perm	Perm	NA	Perm	pm+pt	NA	NA
Protected Phases	3			4		1	2	2
Permitted Phases		3	4		4	2		
Detector Phase	3	3	4	4	4	1	2	2
Switch Phase								
Minimum Initial (s)	8.0	8.0	8.0	8.0	8.0	5.0	8.0	8.0
Minimum Split (s)	15.0	15.0	49.0	49.0	49.0	8.0	31.0	31.0
Total Split (s)	37.0	37.0	43.0	43.0	43.0	19.0	61.0	61.0
Total Split (%)	23.1%	23.1%	26.9%	26.9%	26.9%	11.9%	38.1%	38.1%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	3.0	4.5	4.5
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	0.0	2.5	2.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	7.0	7.0	7.0	7.0	7.0	3.0	7.0	7.0
Lead/Lag	Lead	Lead	Lag	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	None	None	C-Max	C-Max
Act Effct Green (s)	21.9	21.9	33.9	33.9	33.9	84.2	69.6	69.6
Actuated g/C Ratio	0.14	0.14	0.21	0.21	0.21	0.53	0.44	0.44
v/c Ratio	0.65	0.89	0.86	0.84	0.92	0.62	0.98	0.68
Control Delay (s/veh)	77.5	55.1	83.6	80.8	48.2	44.6	43.8	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.5	55.1	83.6	80.8	48.2	44.6	43.8	40.0
LOS	E	E	F	F	D	D	D	D
Approach Delay (s/veh)				66.6			43.8	40.0
Approach LOS				E			D	D

Intersection Summary

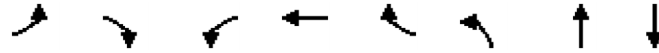
Cycle Length: 160
 Actuated Cycle Length: 160
 Offset: 0 (0%), Referenced to phase 2:NBSB, Start of Green
 Natural Cycle: 145
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay (s/veh): 48.4 Intersection LOS: D
 Intersection Capacity Utilization 94.9% ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp



Queues
2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 PM_Improved
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Lane Group	EBL	EBR	WBL	WBT	WBR	NBL	NBT	SBT
Lane Group Flow (vph)	155	335	291	299	501	102	2195	1912
v/c Ratio	0.65	0.89	0.86	0.84	0.92	0.62	0.98	0.68
Control Delay (s/veh)	77.5	55.1	83.6	80.8	48.2	44.6	43.8	40.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	77.5	55.1	83.6	80.8	48.2	44.6	43.8	40.0
Queue Length 50th (m)	49.8	52.8	96.9	99.1	77.2	23.2	~283.0	154.2
Queue Length 95th (m)	72.0	89.5	#147.4	#147.7	#148.0	m23.5 m	#320.2	189.7
Internal Link Dist (m)				362.7			80.2	20.5
Turn Bay Length (m)	60.0					70.0		
Base Capacity (vph)	324	448	368	386	568	223	2235	2808
Starvation Cap Reductn	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.48	0.75	0.79	0.77	0.88	0.46	0.98	0.68

Intersection Summary

- ~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
- # 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
- m Volume for 95th percentile queue is metered by upstream signal.

HCM Signalized Intersection Capacity Analysis
 2: Erin Mills Pkwy & N Sheridan Way/QEW WB Off Ramp

FT_2041 PM_Improved
 04/17/2026



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖		↗	↖	↖	↗	↖	↑↑↑			↑↑↑	
Traffic Volume (vph)	146	0	315	471	84	471	96	2063	0	0	1767	30
Future Volume (vph)	146	0	315	471	84	471	96	2063	0	0	1767	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	3.5	3.5	3.5	3.5	3.7	3.5	3.5	3.7	3.7	3.7	3.7	3.7
Total Lost time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00	1.00	0.91			0.86	
Frpb, ped/bikes	1.00		1.00	1.00	1.00	0.97	1.00	1.00			1.00	
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00	1.00	1.00			1.00	
Frt	1.00		0.85	1.00	1.00	0.85	1.00	1.00			1.00	
Flt Protected	0.95		1.00	0.95	0.97	1.00	0.95	1.00			1.00	
Satd. Flow (prot)	1733		1597	1600	1677	1511	1767	5142			6461	
Flt Permitted	0.95		1.00	0.95	0.97	1.00	0.06	1.00			1.00	
Satd. Flow (perm)	1733		1597	1600	1677	1511	107	5142			6461	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	155	0	335	501	89	501	102	2195	0	0	1880	32
RTOR Reduction (vph)	0	0	159	0	0	226	0	0	0	0	1	0
Lane Group Flow (vph)	155	0	176	291	299	275	102	2195	0	0	1911	0
Confl. Peds. (#/hr)	12					12	5					5
Heavy Vehicles (%)	3%	2%	0%	6%	3%	3%	1%	2%	3%	2%	2%	0%
Turn Type	Prot		Perm	Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases	3			4	4		1	2			2	
Permitted Phases			3	4		4	2					
Actuated Green, G (s)	21.9		21.9	33.9	33.9	33.9	80.2	69.6			69.6	
Effective Green, g (s)	21.9		21.9	33.9	33.9	33.9	80.2	69.6			69.6	
Actuated g/C Ratio	0.14		0.14	0.21	0.21	0.21	0.50	0.43			0.43	
Clearance Time (s)	7.0		7.0	7.0	7.0	7.0	3.0	7.0			7.0	
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0	3.0	3.0			3.0	
Lane Grp Cap (vph)	237		218	339	355	320	163	2236			2810	
v/s Ratio Prot	0.09						c0.04	c0.43			0.30	
v/s Ratio Perm			c0.11	c0.18	0.18	0.18	0.27					
v/c Ratio	0.65		0.81	0.86	0.84	0.86	0.63	0.98			0.68	
Uniform Delay, d1	65.5		67.0	60.7	60.5	60.7	28.0	44.6			36.3	
Progression Factor	1.00		1.00	1.00	1.00	1.00	1.49	0.92			1.00	
Incremental Delay, d2	6.3		19.3	18.9	16.4	19.8	0.7	2.9			1.3	
Delay (s)	71.8		86.3	79.6	76.9	80.6	42.4	44.0			37.6	
Level of Service	E		F	E	E	F	D	D			D	
Approach Delay (s/veh)		81.7			79.3			43.9			37.6	
Approach LOS		F			E			D			D	
Intersection Summary												
HCM 2000 Control Delay (s/veh)			51.7									D
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			160.0							24.0		
Intersection Capacity Utilization			94.9%									F
Analysis Period (min)			15									
c Critical Lane Group												