



February 25, 2020

Shashank Chitale, B.Arch, OAA

Antrix Architects Inc.
1109 Britannia Road East
Mississauga, ON L4W 3X1

**Re: Proposed Site Expansion
900 Eglinton Avenue East
Transportation Study Update**

CGE Transportation Consulting is pleased to submit this Transportation Study Update for the proposed site expansion located on the south side of Eglinton Avenue East and west of Tomken Road, in the City of Mississauga.

Based on a comprehensive review, the proposed parking supply is adequate to support the expected parking demand generated by the development proposal and it satisfied the City's Zoning By-law parking requirements.

In addition, the study concludes that the incremental site traffic generated by the proposed development can be accommodated by the existing transportation network, no roadway improvements are required. The proposed site accesses can adequately support the forecasted traffic operations.

In addition, this study also addressed the comments received from the City pertaining to our previous submission.

Should you have any questions regarding this study, please do not hesitate to contact the undersigned.

Yours truly,

CGE TRANSPORTATION CONSULTING



Casey Ge, P.Eng.
President

TABLE OF CONTENTS

| | Page |
|--|-----------|
| 1.0 Introduction..... | 1 |
| 2.0 Existing Area..... | 6 |
| 2.1 Existing Road Network | 6 |
| 2.2 Existing Transit Services..... | 6 |
| 3.0 Vehicular Parking Requirements | 9 |
| 3.1 Zoning By-law..... | 9 |
| 3.2 Site Observations..... | 9 |
| 4.0 Site Plan Review | 9 |
| 5.0 Traffic Volumes..... | 10 |
| 5.1 Existing Traffic Volumes | 10 |
| 5.2 Future Background Traffic Volumes | 10 |
| 5.2.1 Analysis Horizon Year | 10 |
| 5.2.2 Corridor Growth | 10 |
| 5.3 Site Traffic Projection | 13 |
| 5.3.1 Trip Generation..... | 13 |
| 5.3.2 Trip Distribution..... | 13 |
| 5.4 Future Road Network | 15 |
| 5.5 Future Total Traffic Volumes..... | 15 |
| 6.0 Operation Analysis..... | 15 |
| 7.0 Transportation Demand Management | 19 |
| 7.1 Transit Accommodation | 19 |
| 7.2 Pedestrian Accommodation..... | 19 |
| 7.3 Cyclist Accommodation | 19 |
| 8.0 Conclusions | 20 |

LIST OF TABLES

| | Page |
|---|-------------|
| Table 1 Site Trip Generation | 13 |
| Table 2 2023 Intersection Analysis Summary – AM Peak Hour | 17 |
| Table 3 2023 Intersection Analysis Summary – PM Peak Hour | 18 |

LIST OF FIGURES

| | Page |
|--|-------------|
| Figure 1 Site Location | 4 |
| Figure 2 Proposed Site Plan | 5 |
| Figure 3 Existing Road Network..... | 7 |
| Figure 4 Existing Transit Facilities..... | 8 |
| Figure 5 Existing Traffic Volumes..... | 11 |
| Figure 6 2023 Future Background Traffic Volumes..... | 12 |
| Figure 7 New Site Traffic Volumes..... | 14 |
| Figure 8 2023 Future Total Traffic Volumes..... | 16 |

TABLE OF APPENDICES

- Appendix A: Existing Traffic Data
- Appendix B: Synchro Analysis Output
 - B1: Existing Condition
 - B2: 2023 Background Condition
 - B3: 2023 Future Condition

1.0 INTRODUCTION

CGE Transportation Consulting was retained by Antrix Architects Inc. to prepare a Transportation Study Update for a proposed site expansion located on the south side of Eglinton Avenue East and west of Tomken Road, municipally known as 900 Eglinton Avenue East in the City of Mississauga.

Existing Site Descriptions:

The site is bounded by Eglinton Avenue East to the north, commercial uses to the east and south and vacant / environmental lands to the west. It is currently occupied by the Bab ul Ilm Islamic Centre (under the trust of Bani Hashim Society) in a one-storey building with a single full-movement driveway onto Eglinton Avenue East.

The location of the proposed development is illustrated in Figure 1.

Development Proposal Descriptions:

Based on the current version of the proposed site plan, the development proposal will expand the operations of the Bab ul Ilm Islamic Centre by constructing a new two-storey building with a floor area of 1,221.1 m² (13,144 ft²). The worship area is 448.7 m² (4,830 ft²) and it can accommodate approximately 170 attendees.

The existing driveway will be reconfigured into a right-in / right-out access and a total of 124 parking spaces will be provided.

As advised by the owner, the peak worship service (Nimaaz e Jumma) occurs on Friday afternoon at 1:30 PM (First Khutba) and 1:55 PM (Namaaz).

The proposed draft plan is provided in Figure 2.

Scope of Work:

Based on our review of the development proposal, the identified study area consists of the following key intersections:

- Eglinton Avenue East and Highway 403 Northbound Off-Ramp;
- Eglinton Avenue East and Tomken Road; and,
- Eglinton Avenue East and Site Driveway.

In consultation with City of Mississauga (the City) staff (Terms of Reference via email on September 11, 2019), estimation of site generated trip will utilize the *Trip Generation Manual, 10th Edition*, published by the Institute of Transportation Engineer (ITE) for “Mosque” (LUC 562). The analysis is developed for the Friday morning and afternoon peak hours.

The horizon of 2023 was selected which represents the expected full build-out and occupancy of the proposed development.

Agency Comments:

A first submission was provided to the City of Mississauga that included a Transportation Study Update dated January 8, 2019 and subsequently the City provided comments on the study via email. The comments are repeated below and they have been addressed under the relevant section in this study.

City's Comments

1. *Traffic Impact Study has been completed without an approval from the City of Mississauga Traffic Planning Staff or MTO for the Terms of Reference.*

CGE Response: City staff was contacted and comments for the Terms of Reference was provided via email on September 11, 2019. We have attempts to contact MTO staff but receive no response to date.

2. *Traffic Impact Study required to be signed and stamped by a licensed Professional Engineer of Ontario.*

CGE Response: This study is signed and stamped by a licensed Professional Engineer of Ontario.

3. *Traffic Impact Study is required to follow City of Mississauga TIS Guidelines (<http://www.mississauga.ca/file/COM/Traffic-Impact-Study-Guidelines.pdf>).*

CGE Response: The preparation of this study adheres to the requirements outline in the City of Mississauga Traffic Impact Study Guidelines.

4. *Due to the proximity of the MTO off/on ramps, the TIS will be required to be circulated to the MTO for review.*

N/A.

CGE Response: The initial study was circulated to MTO and no comments were received at the time of completing this report.

5. *Update TIS to include further detail about the proposal, municipal address, proposed land use, anticipated date of occupancy.*

Addressed in Section 1.0.

CGE Response: Additional details pertaining to the subject site and proposal are provided under Section 1.0 – Introduction.

6. *Confirmation regarding growth rates are required to be confirmed with Transportation Planning Staff Tyler Xuereb tyler.xuereb@mississauga.ca.*

Addressed in Section 4.2.2.

CGE Response: Growth rates on Eglinton Avenue East were provided by Transportation Planning staff and it is updated in this study.

Report Section

Addressed in Section 1.0.

See cover page.

Throughout the study.

7. *Site Trip Generation, 'Assumed Max Attendees' not an acceptable land use. Trip Generation to be used from ITE Trip Generation Manual 10th Edition Mosque (562).*

Addressed in
Section 4.3.1.

CGE Response: Trip generation was updated using the Trip Generation Manual, 10th Edition for LUC 562.

8. *Signal timings are required to be obtained from the City of Mississauga (Jim.Kartsomanis@mississauga.ca).*

Addressed in
Section 5.0.

CGE Response: Signal timing plans were obtained and incorporated into the analysis.

9. *Comments regarding parking justification will be provided by Planning staff.*

N/A.

CGE Response: Acknowledged.

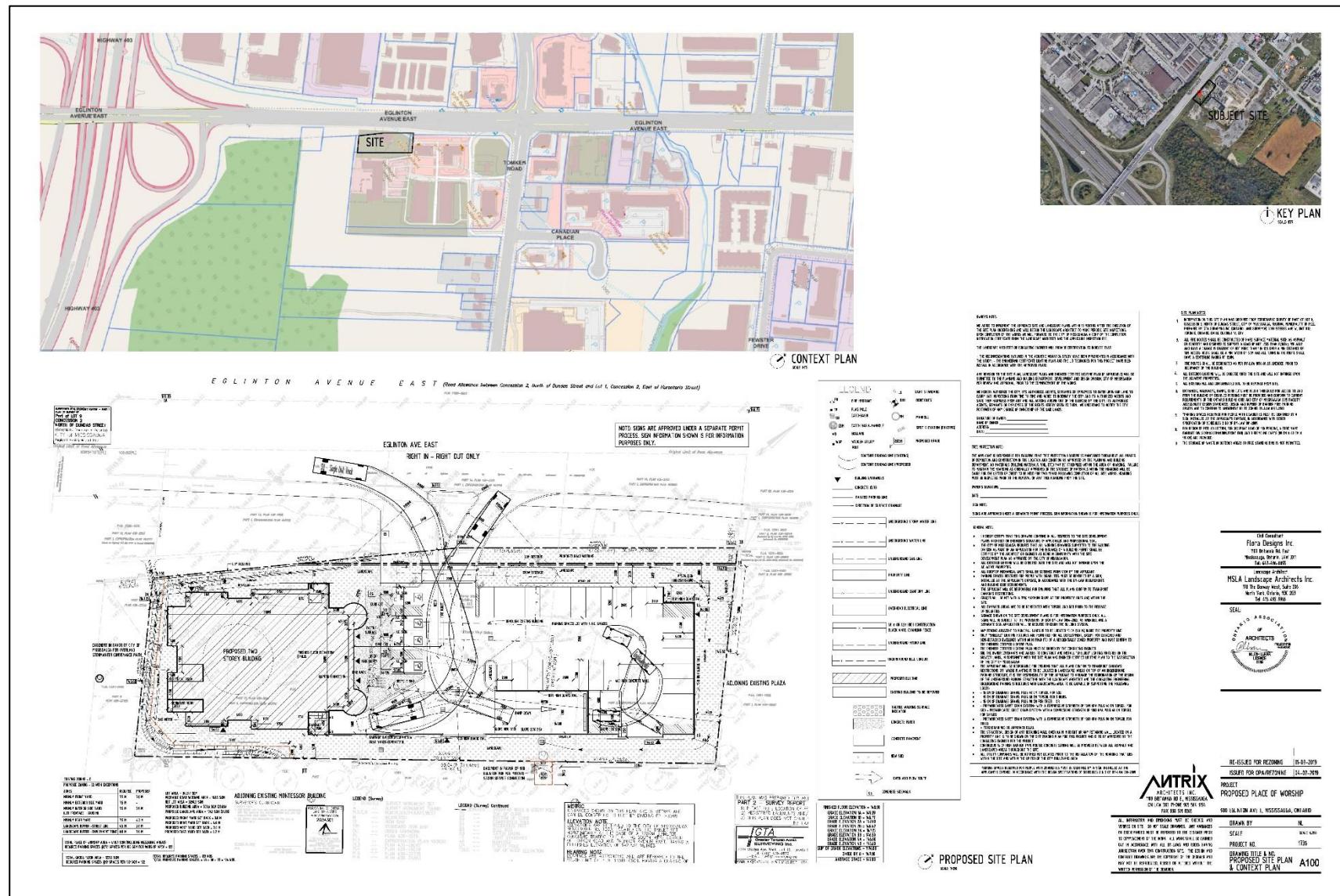
Figure 1 Site Location



Source: Google Maps

Transportation Study Update – 900 Eglinton Avenue East

Figure 2 Proposed Site Plan



2.0 EXISTING AREA

2.1 Existing Road Network

The existing road network, lane configuration and existing traffic control for the study area are shown in Figure 3. The details are described below:

- **Eglinton Avenue East:** is an east-west arterial road under the jurisdictional control of the City. It has 6 general purpose lanes and it maintains a posted speed limit of 60 km/h in the vicinity of the subject site. Sidewalks are provided on both sides of the road.
- **Tomken Road:** is a north-south major collector road under the jurisdictional control of the City and it has 4 general purpose lanes. North of Eglinton Avenue East: the posted speed limit is 60 km/h and sidewalks are provided on both sides of the road. South of Eglinton Avenue East: the posted speed limit is 50 km/h and sidewalks are provided on the east side of the road.

2.2 Existing Transit Services

The subject site is currently served by the following bus routes operated by MiWay. It provides existing and future residents access and connections to both local and regional public transit system and it is illustrated in Figure 4.

- **Bus Route No. 7 (Airport)** – operates between City Centre Transit Terminal and Westwood Square Bus Terminal, generally in an east-west direction, everyday. The average headways are approximately every 20-30 minutes during the weekday morning and afternoon peak periods.
- **Bus Route No. 35 (Eglinton-Ninth Line)** – operates between the area of Erin Centre Boulevard and Longford Drive and Islington Subway Bus Terminal, generally in an east-west direction, everyday. The average headways are approximately every 10 minutes during the weekday morning and afternoon peak periods.
- **Bus Route No. 51 (Tomken)** – operates between the area of Dundas Street and Tomken Road intersection and the area of Cardiff Boulevard and Lorimar Drive intersection, generally in a north-south direction, Monday to Saturday. The average headways are approximately every 11-13 minutes during the weekday morning and afternoon peak periods.
- **Bus Route No. 87 (Meadowvale-Skymark)** – operates between the area of Skymark Avenue and Commerce Boulevard intersection and Meadowvale Town Centre, generally in an east-west direction, rush hour only. The average headways are approximately every 23 minutes during the weekday afternoon peak periods.

Figure 3 Existing Road Network

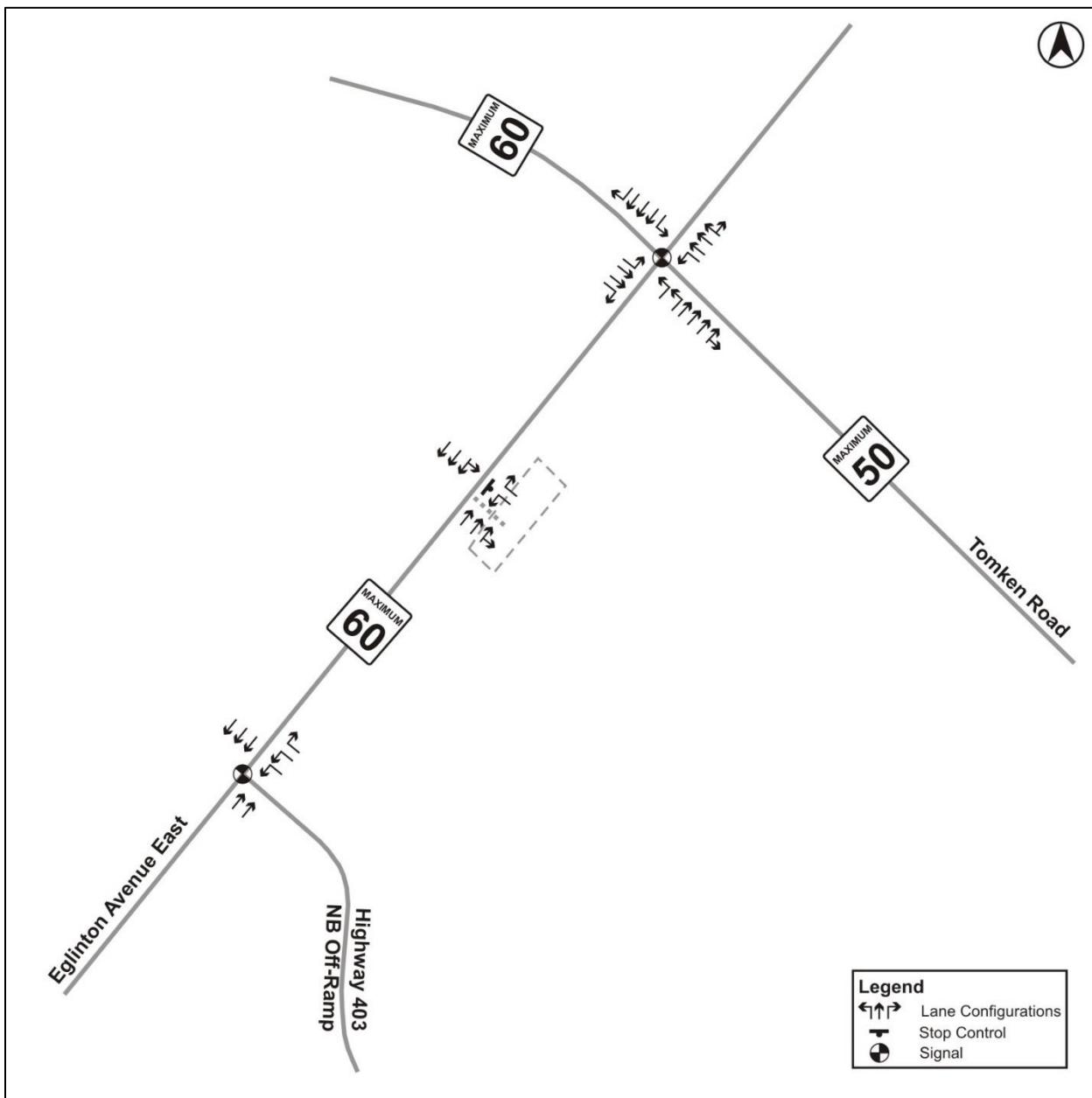
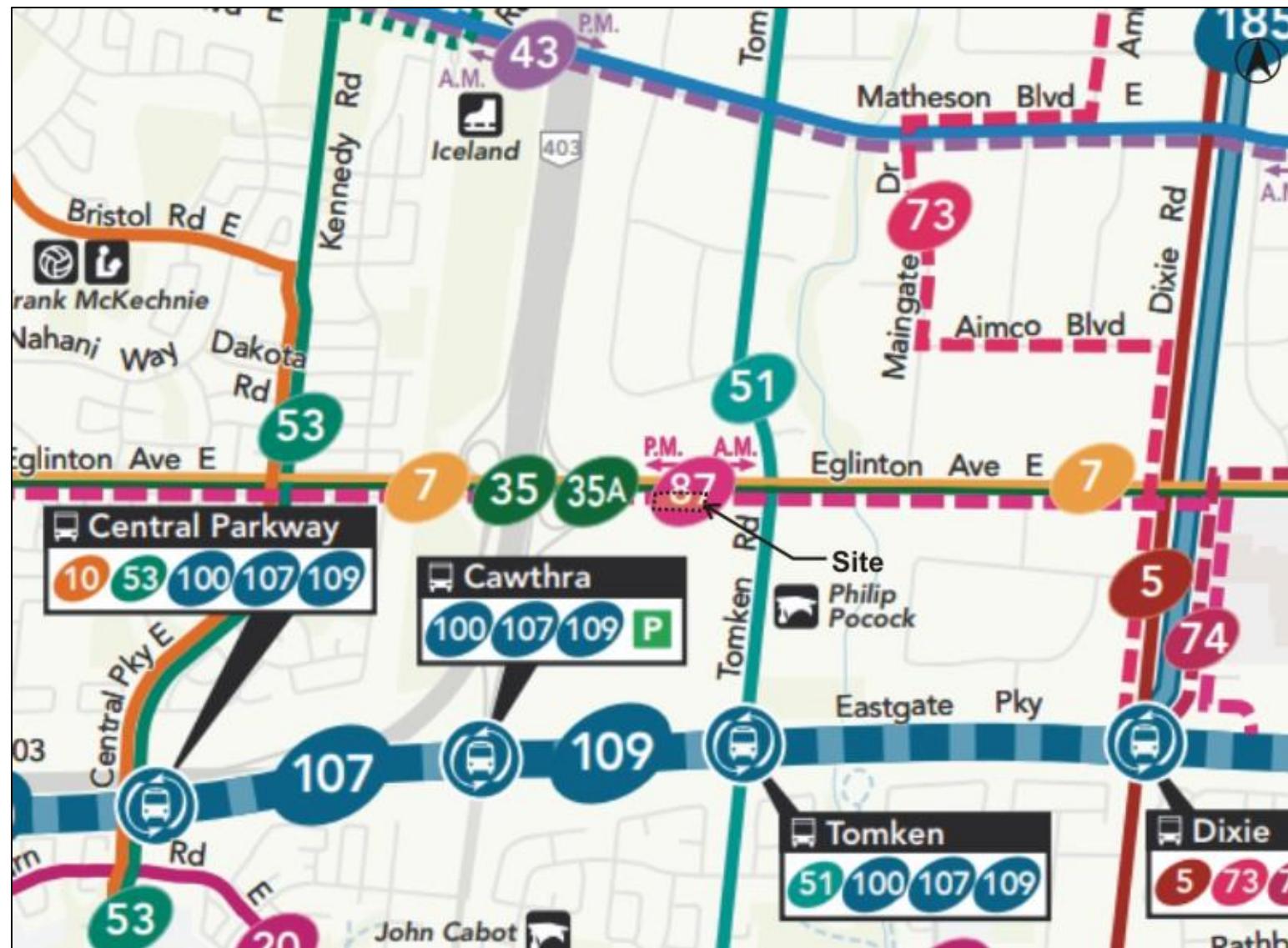


Figure 4 Existing Transit Facilities



Source: MiWay Service Map: Effective October 29, 2018

3.0 VEHICULAR PARKING REQUIREMENTS

3.1 Zoning By-law

In accordance to the City's Zoning By-law, Part 3 for Parking, Loading and Stacking Lane Regulations, the applicable parking requirement for the proposed development is:

- Place of Religious Assembly:
 - 1.0 space per 4.5 seats for permanent fixed seating; plus
 - 27.1 spaces for any non-fixed moveable seating per 100 m²; or
 - 27.1 spaces for all non-fixed moveable seating per 100 m²; or
 - 10.0 spaces per 100 m², whichever greater.

The proposed development will have a total floor area of 1,221.1 m² (13,144 ft²), including 448.7 m² (4,830 ft²) of worship area. No fixed / permeant seating is proposed. Therefore, in accordance to the Zoning By-law parking requirements, a total of 122 parking spaces are required. The proposed parking supply of 124 spaces satisfied the parking requirements.

3.2 Site Observations

In addition, the maximum observed existing parking demand is 38 spaces during the Friday afternoon worship period, or approximately 0.35 spaces per person capacity. The proposed site expansion is expected to generate 60 parking spaces based on a maximum capacity of 170 attendees.

4.0 SITE PLAN REVIEW

Truck manoeuvring diagrams are illustrated in the current site plan showing the truck entering and exiting the proposed loading space and the accessibility of a typical passenger vehicle.

5.0 TRAFFIC VOLUMES

5.1 Existing Traffic Volumes

Baseline traffic volumes at the Eglinton Avenue East and Highway 403 northbound off-ramp interaction was based on the traffic count administrated by the Ministry of Transportation on October 12, 2016. The intersection of Eglinton Avenue East and Tomken Road was counted by Accu-Traffic Inc. on November 16, 2018 during the AM (7:00 to 9:00) and PM (4:00 to 6:00) peak periods.

In addition, we have contacted the City and obtained the official signal timing plans and cycle lengths for the signalized intersection.

The assumed baseline traffic volumes are illustrated in Figure 5 and a copy of the data is provided in Appendix A.

5.2 Future Background Traffic Volumes

5.2.1 Analysis Horizon Year

Given the scale of the proposed development, the horizon year of 2023 was selected, which represents the expected full build-out of the site plus period for traffic normalization.

5.2.2 Corridor Growth

In consultation with Transportation Planning staff, the following growth rates were assumed:

- Eglinton Avenue (provided by City staff):
 - AM eastbound 0.0% and AM westbound 0.5%
 - PM eastbound 0.0% and PM westbound 0.5%
- Tomken Road (general growth rate):
 - AM and PM (northbound and southbound) 2.0%.

The noted growth rates were compounded annually for the through movements.

Future background traffic volumes are illustrated in Figure 6.

Figure 5 Existing Traffic Volumes

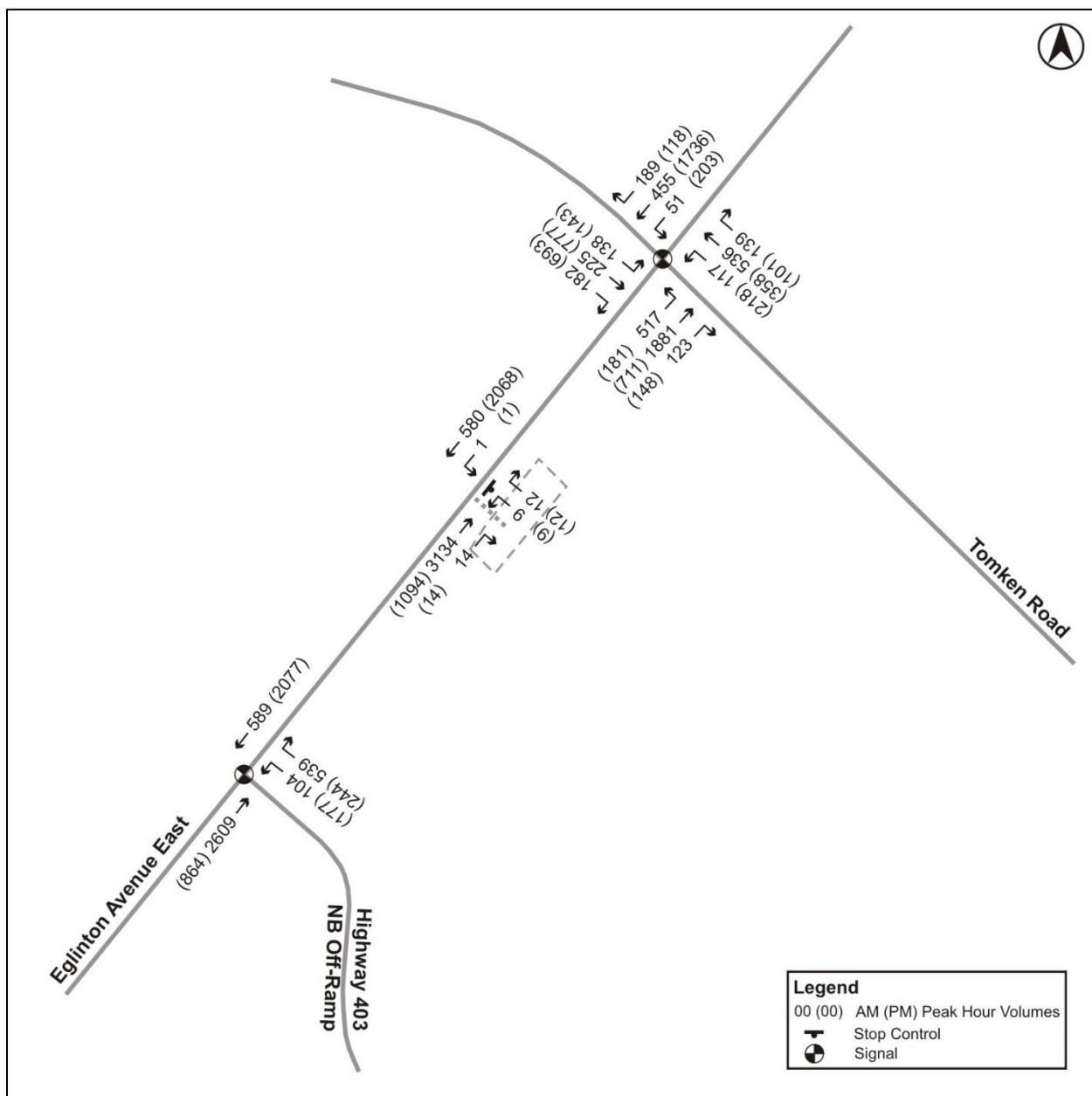
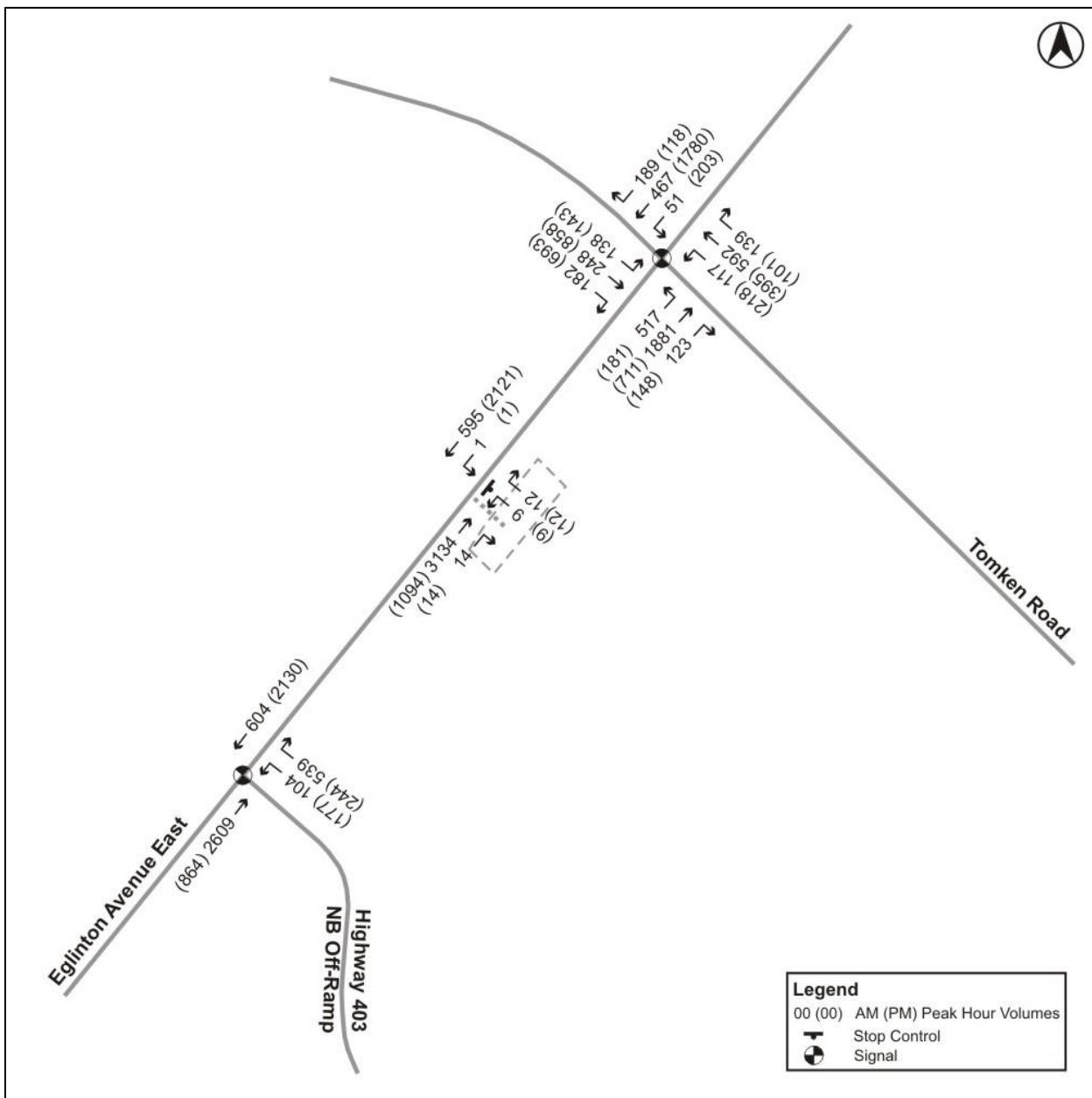


Figure 6 2023 Future Background Traffic Volumes



5.3 Site Traffic Projection

5.3.1 Trip Generation

In consultation with City of Mississauga (the City) staff, estimation of site generated trip will utilize the *Trip Generation Manual, 10th Edition*, published by the Institute of Transportation Engineer (ITE) for “Mosque” (LUC 562). The analysis is developed for the Friday morning and afternoon peak hours.

Table 1 summarizes the total site trip generation for the proposed development.

Table 1 Site Trip Generation

| Land Use | | Friday AM Peak Hour | | | Friday PM Peak Hour | | |
|--|-------|---------------------|------|-------|---------------------|------|-------|
| | | In | Out | Total | In | Out | Total |
| Mosque (13,144 ft ² GFA) | Rates | 6.39 | 3.12 | 9.51 | 9.21 | 9.20 | 18.41 |
| | Trips | 84 | 41 | 125 | 121 | 121 | 242 |

Based on the foregoing, the development proposal is anticipated to generate 125 two-way trips during the Friday AM peak hour and 242 two-way trips during the Friday PM peak hour.

Although the analysis in the study has been updated to reflect the comments provided by City staff. However, it is a conservative approach given the following:

- The survey sample is limited for LUC 562 in ITE Trip Generation Manual.
- The site is currently in operations and the proposed expansion can be better capture by using the existing trip rates.

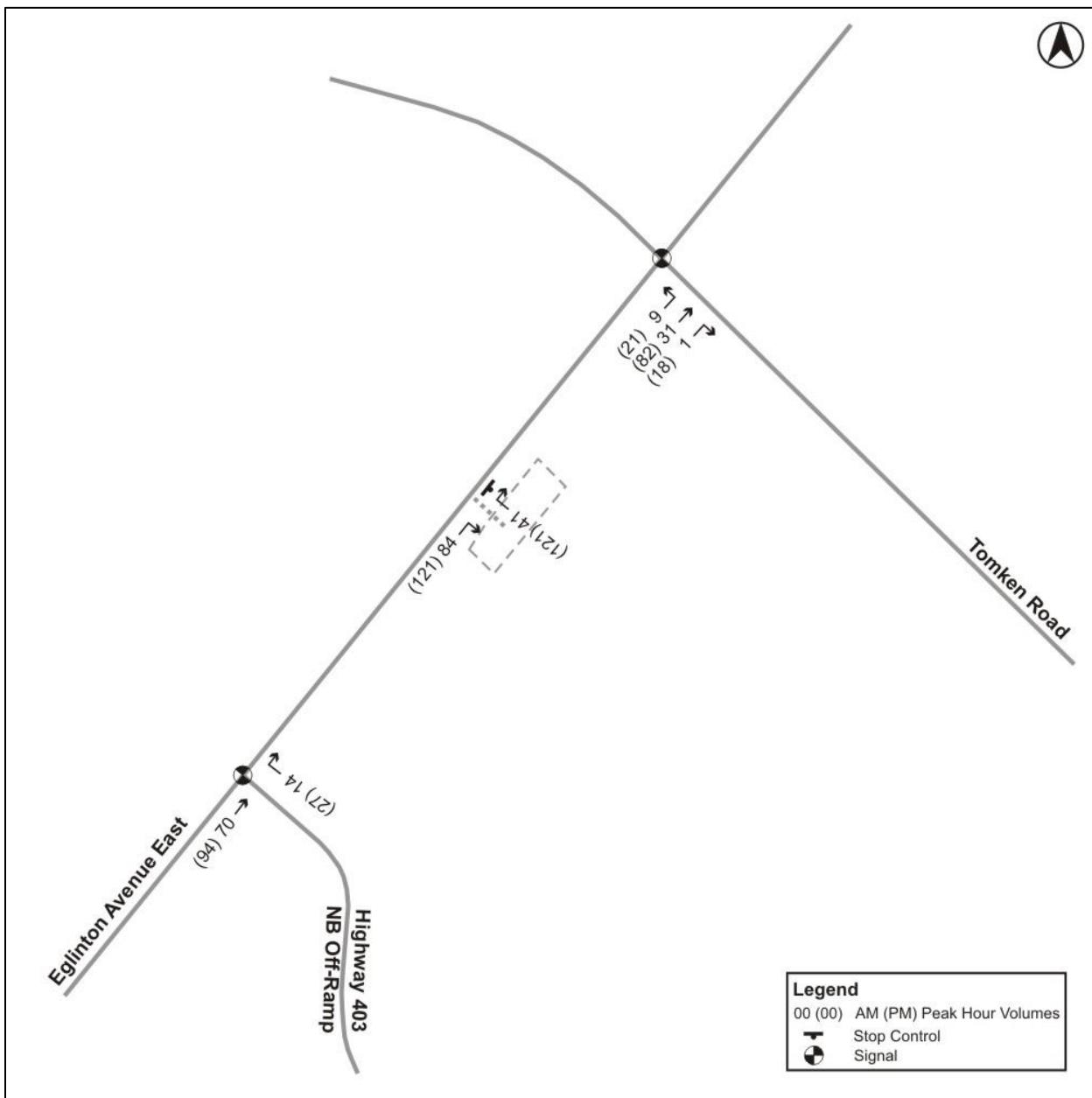
5.3.2 Trip Distribution

In accordance to the site plan, the site driveway will operate as right-in / right-out access. The assumed trip distribution rates are based on existing travel patterns observed at the site, proposed configuration of the site driveway and general traffic flow at the external intersections.

Based on my experience, Transportation Tomorrow Survey (TTS) have limited information and insufficient data for this land use to accurately calculate the trip distribution patterns.

New site traffic volumes are illustrated in Figure 7.

Figure 7 New Site Traffic Volumes



5.4 Future Road Network

Based on our review, there are no roadway improvements approved or scheduled within the study area.

5.5 Future Total Traffic Volumes

Future total traffic volumes were established by adding site generated traffic to the future background traffic, and they are illustrated in Figure 8.

6.0 OPERATION ANALYSIS

Analysis Methodology:

Intersection capacity analyses contained in this study were undertaken using the Synchro software, which is based on the methodologies and procedures outlined in the Highway Capacity Manual (HCM) 2000 published by the Transportation Research Board.

Analysis Summary:

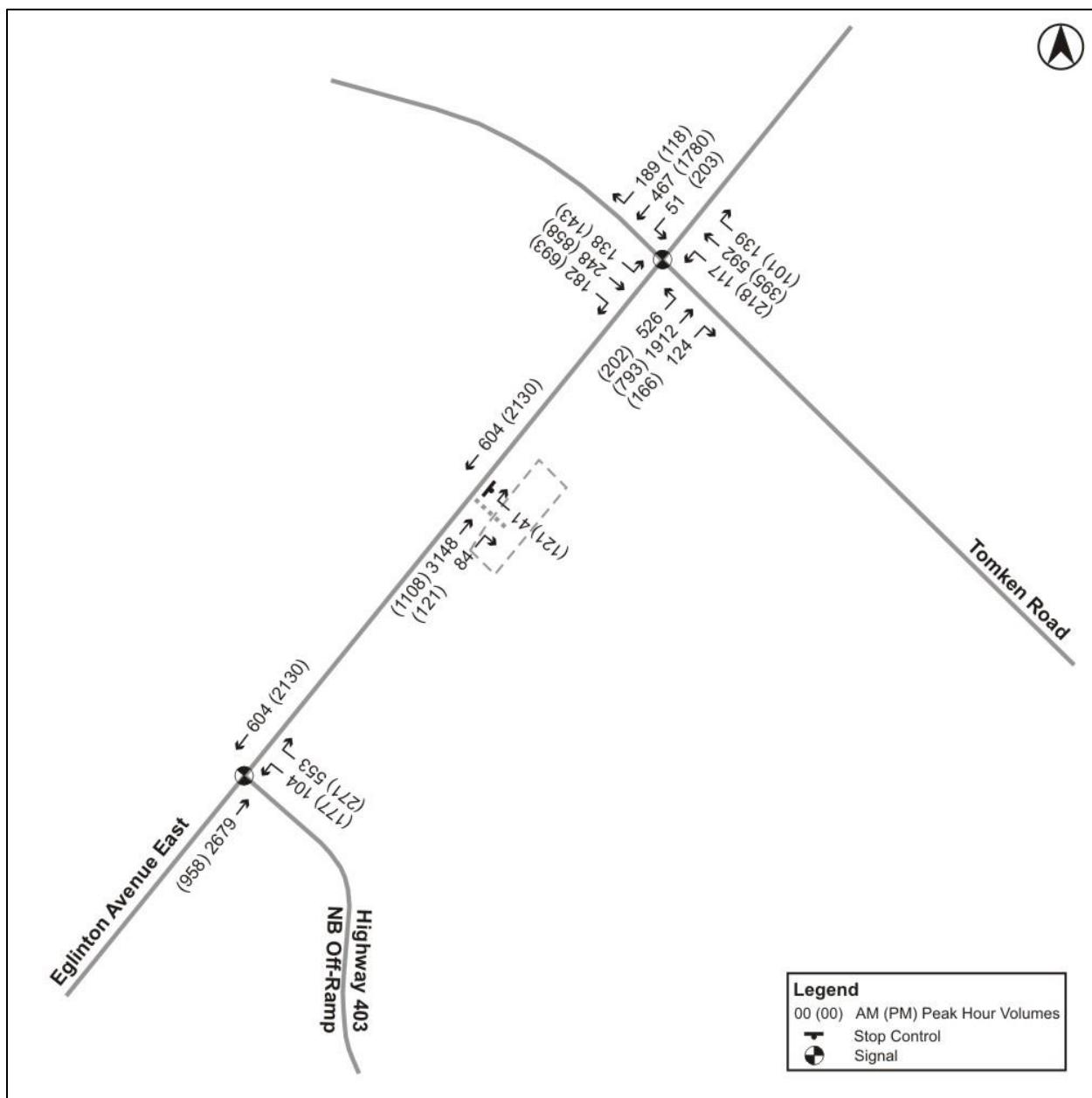
The analysis results are summarized in the following tables:

- Table 2: 2023 traffic conditions (AM Peak Hour)
- Table 3: 2023 traffic conditions (PM Peak Hour)

The study intersections are projected to operate with acceptable delays (LOS ‘E’ or better) and sufficient capacity (below v/c ratio of 1.00).

Detailed Synchro calculations are provided in Appendix B.

Figure 8 2023 Future Total Traffic Volumes



Transportation Study Update – 900 Eglinton Avenue East

Table 2 2023 Intersection Analysis Summary – AM Peak Hour

| Intersection | Movement | Existing | | | | Future Background | | | | Future Total | | | |
|--|----------|----------|------|--------|------------------------|-------------------|------|--------|------------------------|--------------|------|--------|------------------------|
| | | LOS | v/c | Delays | 95 th Queue | LOS | v/c | Delays | 95 th Queue | LOS | v/c | Delays | 95 th Queue |
| Eglinton Avenue East and Highway 403 NB Off-Ramp | EB T | C | 0.95 | 22.0 | 309.9 | B | 0.88 | 11.7 | 220.2 | B | 0.90 | 13.3 | 243.3 |
| | WB T | A | 0.17 | 4.8 | 17.9 | A | 0.17 | 4.2 | 16.9 | A | 0.17 | 4.2 | 16.9 |
| | NB L | D | 0.20 | 45.6 | 20.4 | D | 0.23 | 47.6 | 20.8 | D | 0.23 | 47.6 | 20.8 |
| | NB R | A | 0.35 | 0.6 | 0.0 | A | 0.35 | 0.6 | 0.0 | A | 0.36 | 0.7 | 0.0 |
| Eglinton Avenue East and Tomken Road | EB L | E | 0.84 | 58.1 | 85.1 | E | 0.84 | 58.1 | 85.1 | E | 0.84 | 58.3 | 86.6 |
| | EB T | D | 0.87 | 37.1 | 187.3 | D | 0.87 | 37.1 | 187.3 | D | 0.88 | 37.9 | 194.6 |
| | EB R | C | 0.09 | 21.4 | 12.1 | C | 0.09 | 21.4 | 12.1 | C | 0.09 | 21.4 | 12.5 |
| | WB L | C | 0.36 | 32.1 | 12.7 | C | 0.36 | 32.1 | 12.7 | C | 0.36 | 32.5 | 12.7 |
| | WB T | D | 0.36 | 36.8 | 46.2 | D | 0.37 | 36.9 | 47.4 | D | 0.38 | 37.2 | 47.4 |
| | WB R | C | 0.13 | 34.2 | 18.4 | C | 0.13 | 34.2 | 18.4 | C | 0.13 | 34.5 | 18.4 |
| | NB L | C | 0.27 | 28.0 | 31.4 | C | 0.27 | 28.0 | 31.4 | C | 0.27 | 28.0 | 31.4 |
| | NB T | D | 0.57 | 41.4 | 84.2 | D | 0.62 | 42.8 | 93.6 | D | 0.62 | 42.8 | 93.6 |
| | NB R | C | 0.10 | 34.5 | 16.9 | C | 0.12 | 34.8 | 19.1 | C | 0.12 | 34.8 | 19.1 |
| | SB L | C | 0.46 | 28.1 | 36.7 | C | 0.49 | 28.6 | 36.7 | C | 0.49 | 28.6 | 36.7 |
| | SB T | D | 0.24 | 35.0 | 36.1 | D | 0.26 | 35.4 | 39.5 | D | 0.26 | 35.4 | 39.5 |
| | SB R | A | 0.14 | 0.2 | 0.0 | A | 0.14 | 0.2 | 0.0 | A | 0.14 | 0.2 | 0.0 |
| Eglinton Avenue East and Site Driveway | WB L | A | 0.00 | 0.3 | 0.1 | A | 0.01 | 0.4 | 0.2 | - | - | - | - |
| | NB L | E | 0.09 | 44.5 | 2.3 | F | 0.19 | 96.1 | 4.9 | - | - | - | - |
| | NB R | B | 0.03 | 13.2 | 0.7 | B | 0.02 | 11.1 | 0.5 | B | 0.08 | 12.2 | 2.0 |

Note: signal timings and cycle lengths were maintained.

Transportation Study Update – 900 Eglinton Avenue East

Table 3 2023 Intersection Analysis Summary – PM Peak Hour

| Intersection | Movement | Existing | | | | Future Background | | | | Future Total | | | |
|--|----------|----------|------|--------|------------------------|-------------------|------|--------|------------------------|--------------|------|--------|------------------------|
| | | LOS | v/c | Delays | 95 th Queue | LOS | v/c | Delays | 95 th Queue | LOS | v/c | Delays | 95 th Queue |
| Eglinton Avenue East and Highway 403 NB Off-Ramp | EB T | B | 0.43 | 13.7 | 56.1 | B | 0.42 | 12.7 | 53.8 | B | 0.47 | 13.2 | 61.5 |
| | WB T | B | 0.70 | 17.9 | 108.5 | B | 0.70 | 16.9 | 108.8 | B | 0.70 | 16.9 | 108.8 |
| | NB L | C | 0.18 | 31.6 | 29.3 | C | 0.18 | 33.0 | 29.7 | C | 0.18 | 33.0 | 29.7 |
| | NB R | A | 0.19 | 0.3 | 0.0 | A | 0.19 | 0.3 | 0.0 | A | 0.21 | 0.4 | 0.0 |
| Eglinton Avenue East and Tomken Road | EB L | E | 0.57 | 55.5 | 34.3 | E | 0.57 | 55.5 | 34.3 | E | 0.60 | 55.6 | 37.4 |
| | EB T | C | 0.39 | 28.8 | 61.9 | C | 0.39 | 28.8 | 61.9 | C | 0.44 | 29.5 | 69.6 |
| | EB R | C | 0.11 | 25.5 | 14.3 | C | 0.11 | 25.5 | 14.3 | C | 0.12 | 25.7 | 15.0 |
| | WB L | C | 0.51 | 21.3 | 41.2 | C | 0.51 | 21.3 | 41.2 | C | 0.54 | 22.4 | 41.2 |
| | WB T | D | 0.96 | 51.7 | 206.5 | D | 0.89 | 43.9 | 181.3 | D | 0.91 | 45.7 | 185.2 |
| | WB R | C | 0.08 | 26.3 | 10.8 | C | 0.08 | 26.3 | 10.8 | C | 0.08 | 26.8 | 11.0 |
| | NB L | D | 0.83 | 48.7 | 75.9 | D | 0.83 | 49.3 | 75.9 | D | 0.83 | 49.3 | 75.9 |
| | NB T | D | 0.38 | 37.9 | 55.9 | D | 0.42 | 38.6 | 61.8 | D | 0.42 | 38.6 | 61.8 |
| | NB R | C | 0.07 | 34.0 | 8.6 | C | 0.07 | 34.0 | 8.6 | C | 0.07 | 34.0 | 8.6 |
| | SB L | C | 0.37 | 29.5 | 37.6 | C | 0.39 | 29.5 | 37.6 | C | 0.39 | 29.5 | 37.6 |
| | SB T | E | 0.87 | 55.3 | 136.7 | E | 0.96 | 66.8 | 159.9 | E | 0.96 | 66.8 | 159.9 |
| | SB R | A | 0.45 | 0.9 | 0.0 | A | 0.45 | 0.9 | 0.0 | A | 0.45 | 0.9 | 0.0 |
| Eglinton Avenue East and Site Driveway | WB L | A | 0.00 | 0.00 | 0.0 | A | 0.00 | 0.0 | 0.0 | - | - | - | - |
| | NB L | B | 0.02 | 14.7 | 0.6 | C | 0.03 | 16.6 | 0.7 | - | - | - | - |
| | NB R | A | 0.01 | 9.5 | 0.4 | A | 0.02 | 9.6 | 0.4 | B | 0.15 | 10.2 | 4.2 |

Note: signal timings and cycle lengths were maintained.

7.0 TRANSPORTATION DEMAND MANAGEMENT

It is recommended the Owner to provide dedicated carpool spaces and encourage attendees to carpool, particularly during large events. In addition, it is recommended the Owner to provide bicycle parking spaces and consider providing incentives to attendees who uses other modes of transportation including transit.

It is recommended that during the beginning of service time should high volumes of vehicles arrive within a short period of time, a parking management staff should be on-site to direct traffic and parking. Although, based on the existing site parking/traffic surveys and the small catchment area expected, it is not anticipated that traffic and parking will be a major issue at the subject site.

The subject site is also located within walking distance from Mississauga MiWay bus stops and transit services can be conveniently used.

7.1 Transit Accommodation

As detailed in Section 2.2, the site is currently serviced by multiple bus routes operated by MiWay. The nearest transit stop is located less than 200 m from the subject site.

Based on the City's Official Plan Schedule 6, Eglinton Avenue is identified as "Transit Priority Corridor". In addition, improvements are proposed for the adjacent major corridors including Dixie Road as "Transit Priority Corridor" and East Gate Parkway as "Bus Rapid Transit Corridor".

7.2 Pedestrian Accommodation

As detailed in Section 2.1, the site is currently situated in a pedestrian-oriented neighbourhood with sidewalks generally provided on both sides of the roads to encourage and facilitate pedestrian activities.

Furthermore, as shown on the site plan the proposed development will provide sidewalks throughout the site with connections onto the external sidewalk network.

7.3 Cyclist Accommodation

Although under the existing condition cyclist accommodation is limited, the Region and City is committed to promote non-auto modes of transportation.

Based on the City's Official Plan Schedule 7, Eglinton Avenue and Tomken Road are identified as "Primary On-Road / Boulevard Routes".

In addition, the proposed development will include bicycle racks to further encourage cycling to / from the site.

8.0 CONCLUSIONS

The site is bounded by Eglinton Avenue East to the north, commercial uses to the east and south and vacant / environmental lands to the west. It is currently occupied by the Bab ul Ilm Islamic Centre (under the trust of Bani Hashim Society) in a one-storey building with a single full-movement driveway onto Eglinton Avenue East.

Based on the current version of the proposed site plan, the development proposal will expand the operations of the Bab ul Ilm Islamic Centre by constructing a new two-storey building with a floor area of 1,221.1 m² (13,144 ft²). The worship area is 448.7 m² (4,830 ft²) and it can accommodate approximately 170 attendees. The existing driveway will be reconfigured into a right-in / right-out access and a total of 124 parking spaces will be provided.

As advised by the owner, the peak worship service (Nimaaz e Jumma) occurs on Friday afternoon at 1:30 PM (First Khutba) and 1:55 PM (Namaaz).

The key findings are summarized below:

- Parking supply is adequate to support the expected parking demand generated by the development proposal and it comply with the City's Zoning By-law parking requirements.
- Under future traffic analysis scenarios, the study intersections are operating with acceptable delays and sufficient capacity.
- New traffic generated by the development proposal can be accommodated at the study intersections. There is no mitigation measures required.
- The proposed site driveway is expected to operate with acceptable delays and sufficient capacity.

Appendix A:

Existing Traffic Data

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:45:00

To: 8:45:00

Municipality: Mississauga

Site #: 1814800001

Intersection: Eglinton Ave E & Tomken Rd

TFR File #: 1

Count date: 16-Nov-18

Weather conditions:

Person counted:

Person prepared:

Person checked:

** Signalized Intersection **

Major Road: Eglinton Ave E runs W/E

North Leg Total: 1787

North Entering: 545

North Peds: 23

Peds Cross: 

| | | | | |
|--------|-----|-----|-----|-----|
| Heavys | 17 | 9 | 5 | 31 |
| Trucks | 21 | 6 | 10 | 37 |
| Cars | 144 | 210 | 123 | 477 |
| Totals | 182 | 225 | 138 | |

East Leg Total: 2853

East Entering: 695

East Peds: 33

Peds Cross: 

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 18:00:00

One Hour Peak

From: 16:00:00

To: 17:00:00

Municipality: Mississauga

Site #: 1814800001

Intersection: Eglinton Ave E & Tomken Rd

TFR File #: 1

Count date: 16-Nov-18

Weather conditions:

Person counted:

Person prepared:

Person checked:

** Signalized Intersection **

Major Road: Eglinton Ave E runs W/E

North Leg Total: 2270

North Entering: 1613

North Peds:

Peds Cross: 

| | | | | |
|--------|-----|-----|-----|------|
| Heavys | 11 | 7 | 4 | 22 |
| Trucks | 2 | 1 | 5 | 8 |
| Cars | 680 | 769 | 134 | 1583 |
| Totals | 693 | 777 | 143 | |

| | |
|--------|-----|
| Heavys | 23 |
| Trucks | 15 |
| Cars | 619 |
| Totals | 657 |

East Leg Total: 3012

East Entering: 2057

East Peds: 36

Peds Cross: 

| | | | | |
|--------|----|----|------|------|
| Heavys | 46 | 16 | 2585 | 2647 |
| Trucks | | | | |
| Cars | | | | |
| Totals | | | | |

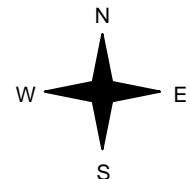


Tomken Rd

| | | | | |
|--------|------|----|----|------|
| Cars | 112 | 2 | 4 | 118 |
| Trucks | 1689 | 13 | 34 | 1736 |
| Heavys | 201 | 2 | 0 | 203 |
| Totals | 2002 | 17 | 38 | |

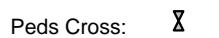
| | | | | |
|--------|----|----|-----|-----|
| Heavys | 13 | 8 | 160 | 181 |
| Trucks | 30 | 17 | 664 | 711 |
| Cars | 1 | 0 | 147 | 148 |
| Totals | 44 | 25 | 971 | |

Eglinton Ave E



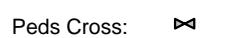
Eglinton Ave E

| | | | | |
|--------|-----|----|----|-----|
| Cars | 898 | 23 | 34 | 955 |
| Trucks | | | | |
| Heavys | | | | |
| Totals | | | | |

| | |
|-----------------|---|
| Peds Cross: |  |
| West Peds: | 31 |
| West Entering: | 1040 |
| West Leg Total: | 3687 |

| | |
|--------|------|
| Cars | 1117 |
| Trucks | 3 |
| Heavys | 8 |
| Totals | 1128 |

| | | | | |
|--------|-----|-----|-----|-----|
| Cars | 216 | 347 | 100 | 663 |
| Trucks | 1 | 5 | 1 | 7 |
| Heavys | 1 | 6 | 0 | 7 |
| Totals | 218 | 358 | 101 | |

| | |
|------------------|---|
| Peds Cross: |  |
| South Peds: | 62 |
| South Entering: | 677 |
| South Leg Total: | 1805 |

Comments

Accu-Traffic Inc.

Total Count Diagram

Municipality: Mississauga

Site #: 1814800001

Intersection: Eglinton Ave E & Tomken Rd

TFR File #: 1

Count date: 16-Nov-18

Weather conditions:

Person counted:

Person prepared:

Person checked:

**** Signalized Intersection ****

Major Road: Eglinton Ave E runs W/E

North Leg Total: 7473

North Entering: 3866

North Peds: 58

Peds Cross:

| | | | | |
|--------|------|------|-----|------|
| Heavys | 50 | 32 | 15 | 97 |
| Trucks | 38 | 15 | 24 | 77 |
| Cars | 1389 | 1831 | 472 | 3692 |
| Totals | 1477 | 1878 | 511 | |

Heavys 86

Trucks 56

Cars 3465

Totals 3607

East Leg Total: 10846

East Entering: 5089

East Peds: 154

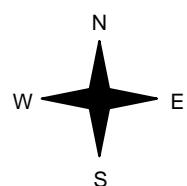
Peds Cross:

Heavys Trucks Cars Totals
188 110 5794 6092



Tomken Rd

Eglinton Ave E



Heavys Trucks Cars Totals
39 27 1206 1272
105 55 4636 4796
2 0 522 524
146 82 6364

| | | | | |
|--------|------|----|-----|------|
| Cars | 548 | 17 | 20 | 585 |
| Trucks | 3781 | 67 | 136 | 3984 |
| Heavys | 513 | 5 | 2 | 520 |
| Totals | 4842 | 89 | 158 | |

Eglinton Ave E

| | | | | |
|--------|------|----|-----|------|
| Cars | 5548 | 84 | 125 | 5757 |
| Trucks | | | | |
| Heavys | | | | |
| Totals | | | | |

Peds Cross:
West Peds: 144
West Entering: 6592
West Leg Total: 12684

Cars 2866
Trucks 20
Heavys 36
Totals 2922

Cars 624 1711 440 2775
Trucks 5 12 5 22
Heavys 2 27 5 34
Totals 631 1750 450

Peds Cross:
South Peds: 307
South Entering: 2831
South Leg Total: 5753

Comments

Accu-Traffic Inc.

Traffic Count Summary

| Intersection: Eglinton Ave E & Tomken Rd | | | | Count Date: 16-Nov-18 | | | Municipality: Mississauga | | | | | |
|---|---------------------------------|------|-------|-----------------------|------------|------------------------------|---------------------------|---------------------------------|------|-------|-------------|------------|
| North Approach Totals | | | | | | | South Approach Totals | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds | North/South Total Approaches | Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds |
| | Left | Thru | Right | Grand Total | | | | Left | Thru | Right | Grand Total | |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 7:00:00 | 0 | 0 | 0 | 0 | 0 |
| 8:00:00 | 91 | 180 | 109 | 380 | 24 | 1081 | 8:00:00 | 84 | 516 | 101 | 701 | 87 |
| 9:00:00 | 144 | 247 | 202 | 593 | 13 | 1445 | 9:00:00 | 138 | 557 | 157 | 852 | 82 |
| 16:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 16:00:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00:00 | 143 | 777 | 693 | 1613 | 13 | 2290 | 17:00:00 | 218 | 358 | 101 | 677 | 62 |
| 18:00:00 | 133 | 674 | 473 | 1280 | 8 | 1881 | 18:00:00 | 191 | 319 | 91 | 601 | 76 |
| Totals: | 511 | 1878 | 1477 | 3866 | 58 | 6697 | S Totals: | 631 | 1750 | 450 | 2831 | 307 |
| East Approach Totals | | | | | | | West Approach Totals | | | | | |
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds | East/West Total Approaches | Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds |
| | Left | Thru | Right | Grand Total | | | | Left | Thru | Right | Grand Total | |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 7:00:00 | 0 | 0 | 0 | 0 | 0 |
| 8:00:00 | 44 | 487 | 143 | 674 | 29 | 2942 | 8:00:00 | 467 | 1678 | 123 | 2268 | 34 |
| 9:00:00 | 69 | 474 | 189 | 732 | 38 | 3034 | 9:00:00 | 444 | 1738 | 120 | 2302 | 32 |
| 16:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 16:00:00 | 0 | 0 | 0 | 0 | 0 |
| 17:00:00 | 203 | 1736 | 118 | 2057 | 36 | 3097 | 17:00:00 | 181 | 711 | 148 | 1040 | 31 |
| 18:00:00 | 204 | 1287 | 135 | 1626 | 51 | 2608 | 18:00:00 | 180 | 669 | 133 | 982 | 47 |
| Totals: | 520 | 3984 | 585 | 5089 | 154 | 11681 | W Totals: | 1272 | 4796 | 524 | 6592 | 144 |
| Calculated Values for Traffic Crossing Major Street | | | | | | | | | | | | |
| Hours Ending: | 7:00 | 8:00 | 9:00 | 16:00 | | | 17:00 | 18:00 | 0:00 | 0:00 | | |
| Crossing Values: | 0 | 754 | 909 | 0 | | | 1205 | 1096 | 0 | 0 | | |



Accu-Traffic Inc.

Count Date: 16-Nov-18 Site #: 1814800001

| Interval Time | Passenger Cars - North Approach | | | | | | Trucks - North Approach | | | | | | Heavys - North Approach | | | | | | Pedestrians | |
|---------------|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | North Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15:00 | 14 | 14 | 46 | 46 | 28 | 28 | 1 | 1 | 1 | 1 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| 7:30:00 | 29 | 15 | 88 | 42 | 46 | 18 | 2 | 1 | 2 | 1 | 5 | 2 | 3 | 1 | 4 | 2 | 5 | 3 | 5 | 4 |
| 7:45:00 | 47 | 18 | 129 | 41 | 66 | 20 | 3 | 1 | 4 | 2 | 6 | 1 | 4 | 1 | 6 | 2 | 9 | 4 | 12 | 7 |
| 8:00:00 | 82 | 35 | 168 | 39 | 87 | 21 | 5 | 2 | 4 | 0 | 8 | 2 | 4 | 0 | 8 | 2 | 14 | 5 | 24 | 12 |
| 8:15:00 | 108 | 26 | 213 | 45 | 126 | 39 | 6 | 1 | 5 | 1 | 14 | 6 | 5 | 1 | 9 | 1 | 16 | 2 | 27 | 3 |
| 8:30:00 | 141 | 33 | 272 | 59 | 167 | 41 | 10 | 4 | 10 | 5 | 22 | 8 | 6 | 1 | 11 | 2 | 21 | 5 | 29 | 2 |
| 8:45:00 | 170 | 29 | 339 | 67 | 210 | 43 | 13 | 3 | 10 | 0 | 27 | 5 | 9 | 3 | 15 | 4 | 26 | 5 | 35 | 6 |
| 9:00:00 | 208 | 38 | 398 | 59 | 247 | 37 | 17 | 4 | 11 | 1 | 32 | 5 | 10 | 1 | 18 | 3 | 32 | 6 | 37 | 2 |
| 9:15:00 | 208 | 0 | 398 | 0 | 247 | 0 | 17 | 0 | 11 | 0 | 32 | 0 | 10 | 0 | 18 | 0 | 32 | 0 | 37 | 0 |
| 16:00:00 | 208 | 0 | 398 | 0 | 247 | 0 | 17 | 0 | 11 | 0 | 32 | 0 | 10 | 0 | 18 | 0 | 32 | 0 | 37 | 0 |
| 16:15:00 | 249 | 41 | 565 | 167 | 431 | 184 | 17 | 0 | 11 | 0 | 32 | 0 | 12 | 2 | 20 | 2 | 36 | 4 | 44 | 7 |
| 16:30:00 | 287 | 38 | 783 | 218 | 600 | 169 | 20 | 3 | 12 | 1 | 33 | 1 | 13 | 1 | 21 | 1 | 39 | 3 | 44 | 0 |
| 16:45:00 | 320 | 33 | 973 | 190 | 806 | 206 | 20 | 0 | 12 | 0 | 33 | 0 | 13 | 0 | 24 | 3 | 42 | 3 | 46 | 2 |
| 17:00:00 | 342 | 22 | 1167 | 194 | 927 | 121 | 22 | 2 | 12 | 0 | 34 | 1 | 14 | 1 | 25 | 1 | 43 | 1 | 50 | 4 |
| 17:15:00 | 384 | 42 | 1384 | 217 | 1088 | 161 | 23 | 1 | 13 | 1 | 36 | 2 | 14 | 0 | 26 | 1 | 47 | 4 | 54 | 4 |
| 17:30:00 | 424 | 40 | 1557 | 173 | 1214 | 126 | 24 | 1 | 14 | 1 | 38 | 2 | 14 | 0 | 27 | 1 | 48 | 1 | 58 | 4 |
| 17:45:00 | 448 | 24 | 1713 | 156 | 1318 | 104 | 24 | 0 | 14 | 0 | 38 | 0 | 15 | 1 | 29 | 2 | 48 | 0 | 58 | 0 |
| 18:00:00 | 472 | 24 | 1831 | 118 | 1389 | 71 | 24 | 0 | 15 | 1 | 38 | 0 | 15 | 0 | 32 | 3 | 50 | 2 | 58 | 0 |
| 18:15:00 | 472 | 0 | 1831 | 0 | 1389 | 0 | 24 | 0 | 15 | 0 | 38 | 0 | 15 | 0 | 32 | 0 | 50 | 0 | 58 | 0 |
| 18:15:15 | 472 | 0 | 1831 | 0 | 1389 | 0 | 24 | 0 | 15 | 0 | 38 | 0 | 15 | 0 | 32 | 0 | 50 | 0 | 58 | 0 |



Accu-Traffic Inc.

Count Date: 16-Nov-18 Site #: 1814800001

| Interval Time | Passenger Cars - East Approach | | | | | | Trucks - East Approach | | | | | | Heavys - East Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | East Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15:00 | 8 | 8 | 105 | 105 | 25 | 25 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 11 | 11 | 2 | 2 | 3 | 3 |
| 7:30:00 | 22 | 14 | 251 | 146 | 59 | 34 | 0 | 0 | 7 | 5 | 1 | 1 | 0 | 0 | 21 | 10 | 4 | 2 | 8 | 5 |
| 7:45:00 | 34 | 12 | 343 | 92 | 92 | 33 | 0 | 0 | 10 | 3 | 2 | 1 | 1 | 1 | 28 | 7 | 6 | 2 | 22 | 14 |
| 8:00:00 | 42 | 8 | 433 | 90 | 130 | 38 | 1 | 1 | 13 | 3 | 6 | 4 | 1 | 0 | 41 | 13 | 7 | 1 | 29 | 7 |
| 8:15:00 | 53 | 11 | 533 | 100 | 175 | 45 | 1 | 0 | 18 | 5 | 6 | 0 | 2 | 1 | 47 | 6 | 7 | 0 | 40 | 11 |
| 8:30:00 | 72 | 19 | 628 | 95 | 217 | 42 | 1 | 0 | 27 | 9 | 9 | 3 | 2 | 0 | 59 | 12 | 9 | 2 | 47 | 7 |
| 8:45:00 | 83 | 11 | 734 | 106 | 266 | 49 | 1 | 0 | 35 | 8 | 11 | 2 | 2 | 0 | 67 | 8 | 12 | 3 | 55 | 8 |
| 9:00:00 | 109 | 26 | 844 | 110 | 306 | 40 | 2 | 1 | 42 | 7 | 12 | 1 | 2 | 0 | 75 | 8 | 14 | 2 | 67 | 12 |
| 9:15:00 | 109 | 0 | 844 | 0 | 306 | 0 | 2 | 0 | 42 | 0 | 12 | 0 | 2 | 0 | 75 | 0 | 14 | 0 | 67 | 0 |
| 16:00:00 | 109 | 0 | 844 | 0 | 306 | 0 | 2 | 0 | 42 | 0 | 12 | 0 | 2 | 0 | 75 | 0 | 14 | 0 | 67 | 0 |
| 16:15:00 | 151 | 42 | 1310 | 466 | 345 | 39 | 3 | 1 | 44 | 2 | 12 | 0 | 2 | 0 | 81 | 6 | 15 | 1 | 67 | 0 |
| 16:30:00 | 217 | 66 | 1694 | 384 | 374 | 29 | 3 | 0 | 48 | 4 | 12 | 0 | 2 | 0 | 89 | 8 | 17 | 2 | 78 | 11 |
| 16:45:00 | 261 | 44 | 2133 | 439 | 391 | 17 | 4 | 1 | 52 | 4 | 13 | 1 | 2 | 0 | 98 | 9 | 18 | 1 | 92 | 14 |
| 17:00:00 | 310 | 49 | 2533 | 400 | 418 | 27 | 4 | 0 | 55 | 3 | 14 | 1 | 2 | 0 | 109 | 11 | 18 | 0 | 103 | 11 |
| 17:15:00 | 365 | 55 | 2867 | 334 | 454 | 36 | 4 | 0 | 58 | 3 | 14 | 0 | 2 | 0 | 120 | 11 | 19 | 1 | 132 | 29 |
| 17:30:00 | 423 | 58 | 3237 | 370 | 486 | 32 | 4 | 0 | 59 | 1 | 14 | 0 | 2 | 0 | 125 | 5 | 20 | 1 | 139 | 7 |
| 17:45:00 | 464 | 41 | 3543 | 306 | 514 | 28 | 5 | 1 | 64 | 5 | 15 | 1 | 2 | 0 | 130 | 5 | 20 | 0 | 147 | 8 |
| 18:00:00 | 513 | 49 | 3781 | 238 | 548 | 34 | 5 | 0 | 67 | 3 | 17 | 2 | 2 | 0 | 136 | 6 | 20 | 0 | 154 | 7 |
| 18:15:00 | 513 | 0 | 3781 | 0 | 548 | 0 | 5 | 0 | 67 | 0 | 17 | 0 | 2 | 0 | 136 | 0 | 20 | 0 | 154 | 0 |
| 18:15:15 | 513 | 0 | 3781 | 0 | 548 | 0 | 5 | 0 | 67 | 0 | 17 | 0 | 2 | 0 | 136 | 0 | 20 | 0 | 154 | 0 |



Accu-Traffic Inc.

Count Date: 16-Nov-18 Site #: 1814800001

| Interval Time | Passenger Cars - South Approach | | | | | | Trucks - South Approach | | | | | | Heavys - South Approach | | | | | | Pedestrians | |
|---------------|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | South Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15:00 | 13 | 13 | 121 | 121 | 25 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 19 | 19 |
| 7:30:00 | 33 | 20 | 224 | 103 | 45 | 20 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 45 | 26 |
| 7:45:00 | 61 | 28 | 368 | 144 | 72 | 27 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 73 | 28 |
| 8:00:00 | 83 | 22 | 507 | 139 | 101 | 29 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 8 | 3 | 0 | 0 | 87 | 14 |
| 8:15:00 | 110 | 27 | 624 | 117 | 135 | 34 | 1 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 10 | 2 | 1 | 1 | 111 | 24 |
| 8:30:00 | 142 | 32 | 760 | 136 | 172 | 37 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 12 | 2 | 2 | 1 | 129 | 18 |
| 8:45:00 | 175 | 33 | 894 | 134 | 208 | 36 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 13 | 1 | 3 | 1 | 141 | 12 |
| 9:00:00 | 219 | 44 | 1055 | 161 | 253 | 45 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 15 | 2 | 5 | 2 | 169 | 28 |
| 9:15:00 | 219 | 0 | 1055 | 0 | 253 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 5 | 0 | 169 | 0 |
| 16:00:00 | 219 | 0 | 1055 | 0 | 253 | 0 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 15 | 0 | 5 | 0 | 169 | 0 |
| 16:15:00 | 269 | 50 | 1121 | 66 | 283 | 30 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 16 | 1 | 5 | 0 | 178 | 9 |
| 16:30:00 | 337 | 68 | 1223 | 102 | 302 | 19 | 3 | 0 | 4 | 1 | 1 | 1 | 0 | 0 | 18 | 2 | 5 | 0 | 186 | 8 |
| 16:45:00 | 389 | 52 | 1321 | 98 | 324 | 22 | 4 | 1 | 7 | 3 | 1 | 0 | 1 | 1 | 20 | 2 | 5 | 0 | 210 | 24 |
| 17:00:00 | 435 | 46 | 1402 | 81 | 353 | 29 | 4 | 0 | 8 | 1 | 1 | 0 | 1 | 0 | 21 | 1 | 5 | 0 | 231 | 21 |
| 17:15:00 | 488 | 53 | 1472 | 70 | 378 | 25 | 4 | 0 | 8 | 0 | 3 | 2 | 2 | 1 | 22 | 1 | 5 | 0 | 243 | 12 |
| 17:30:00 | 540 | 52 | 1547 | 75 | 393 | 15 | 4 | 0 | 10 | 2 | 4 | 1 | 2 | 0 | 23 | 1 | 5 | 0 | 262 | 19 |
| 17:45:00 | 574 | 34 | 1627 | 80 | 418 | 25 | 5 | 1 | 12 | 2 | 4 | 0 | 2 | 0 | 25 | 2 | 5 | 0 | 293 | 31 |
| 18:00:00 | 624 | 50 | 1711 | 84 | 440 | 22 | 5 | 0 | 12 | 0 | 5 | 1 | 2 | 0 | 27 | 2 | 5 | 0 | 307 | 14 |
| 18:15:00 | 624 | 0 | 1711 | 0 | 440 | 0 | 5 | 0 | 12 | 0 | 5 | 0 | 2 | 0 | 27 | 0 | 5 | 0 | 307 | 0 |
| 18:15:15 | 624 | 0 | 1711 | 0 | 440 | 0 | 5 | 0 | 12 | 0 | 5 | 0 | 2 | 0 | 27 | 0 | 5 | 0 | 307 | 0 |



Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 16-Nov-18 Site #: 1814800001

| Interval Time | Passenger Cars - West Approach | | | | | | Trucks - West Approach | | | | | | Heavys - West Approach | | | | | | Pedestrians | |
|---------------|--------------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|------------------------|------|------|------|-------|------|-------------|------|
| | Left | | Thru | | Right | | Left | | Thru | | Right | | Left | | Thru | | Right | | West Cross | |
| | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr | Cum | Incr |
| 7:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:15:00 | 76 | 76 | 319 | 319 | 21 | 21 | 0 | 0 | 2 | 2 | 0 | 0 | 2 | 2 | 7 | 7 | 0 | 0 | 4 | 4 |
| 7:30:00 | 180 | 104 | 744 | 425 | 57 | 36 | 0 | 0 | 3 | 1 | 0 | 0 | 4 | 2 | 13 | 6 | 0 | 0 | 12 | 8 |
| 7:45:00 | 286 | 106 | 1123 | 379 | 86 | 29 | 1 | 1 | 5 | 2 | 0 | 0 | 5 | 1 | 19 | 6 | 0 | 0 | 19 | 7 |
| 8:00:00 | 453 | 167 | 1642 | 519 | 123 | 37 | 5 | 4 | 10 | 5 | 0 | 0 | 9 | 4 | 26 | 7 | 0 | 0 | 34 | 15 |
| 8:15:00 | 564 | 111 | 2086 | 444 | 153 | 30 | 7 | 2 | 15 | 5 | 0 | 0 | 11 | 2 | 31 | 5 | 0 | 0 | 37 | 3 |
| 8:30:00 | 661 | 97 | 2504 | 418 | 175 | 22 | 10 | 3 | 17 | 2 | 0 | 0 | 17 | 6 | 36 | 5 | 1 | 1 | 45 | 8 |
| 8:45:00 | 777 | 116 | 2965 | 461 | 208 | 33 | 13 | 3 | 23 | 6 | 0 | 0 | 19 | 2 | 40 | 4 | 1 | 0 | 51 | 6 |
| 9:00:00 | 874 | 97 | 3342 | 377 | 242 | 34 | 15 | 2 | 28 | 5 | 0 | 0 | 22 | 3 | 46 | 6 | 1 | 0 | 66 | 15 |
| 9:15:00 | 874 | 0 | 3342 | 0 | 242 | 0 | 15 | 0 | 28 | 0 | 0 | 0 | 22 | 0 | 46 | 0 | 1 | 0 | 66 | 0 |
| 16:00:00 | 874 | 0 | 3342 | 0 | 242 | 0 | 15 | 0 | 28 | 0 | 0 | 0 | 22 | 0 | 46 | 0 | 1 | 0 | 66 | 0 |
| 16:15:00 | 930 | 56 | 3512 | 170 | 276 | 34 | 18 | 3 | 34 | 6 | 0 | 0 | 24 | 2 | 53 | 7 | 1 | 0 | 78 | 12 |
| 16:30:00 | 963 | 33 | 3662 | 150 | 305 | 29 | 19 | 1 | 38 | 4 | 0 | 0 | 27 | 3 | 59 | 6 | 1 | 0 | 85 | 7 |
| 16:45:00 | 1000 | 37 | 3833 | 171 | 345 | 40 | 20 | 1 | 41 | 3 | 0 | 0 | 32 | 5 | 67 | 8 | 1 | 0 | 92 | 7 |
| 17:00:00 | 1034 | 34 | 4006 | 173 | 389 | 44 | 23 | 3 | 45 | 4 | 0 | 0 | 35 | 3 | 76 | 9 | 2 | 1 | 97 | 5 |
| 17:15:00 | 1074 | 40 | 4151 | 145 | 420 | 31 | 23 | 0 | 49 | 4 | 0 | 0 | 35 | 0 | 83 | 7 | 2 | 0 | 113 | 16 |
| 17:30:00 | 1107 | 33 | 4320 | 169 | 457 | 37 | 25 | 2 | 53 | 4 | 0 | 0 | 35 | 0 | 90 | 7 | 2 | 0 | 125 | 12 |
| 17:45:00 | 1163 | 56 | 4467 | 147 | 487 | 30 | 25 | 0 | 55 | 2 | 0 | 0 | 37 | 2 | 100 | 10 | 2 | 0 | 136 | 11 |
| 18:00:00 | 1206 | 43 | 4636 | 169 | 522 | 35 | 27 | 2 | 55 | 0 | 0 | 0 | 39 | 2 | 105 | 5 | 2 | 0 | 144 | 8 |
| 18:15:00 | 1206 | 0 | 4636 | 0 | 522 | 0 | 27 | 0 | 55 | 0 | 0 | 0 | 39 | 0 | 105 | 0 | 2 | 0 | 144 | 0 |
| 18:15:15 | 1206 | 0 | 4636 | 0 | 522 | 0 | 27 | 0 | 55 | 0 | 0 | 0 | 39 | 0 | 105 | 0 | 2 | 0 | 144 | 0 |



Ministry of Transportation
Ministère des Transports

2016

Intersection Layout Sheet

Version: 1.0 Feb 1, 2016

Contract # 9015-E-0009
Work Order # 590

Date: Oct 121 Day: We 1 Hrs: 6-10 + 15-19 + -
Location: Eglinton Ave IC East Ramps Ramps: East 124, 2
Reg/Mun: CR Town/City: Mississauga Area: _____
File Name: 3482550000 Device: Gretch / Jamar Unit #: 15 1 Interval 1: (AM) NN / PM
Observer: Renat Shuliko Weather: Clear/Cloudy Road Condition: Good

LHRS & O/S: 48255 0 Comments:
GPS: G-Starr IV
Datum: WGS 84 (Y) N
Lat: 43.622923
Long: -79.634840

SIGNALIZED (Y) N

If intersection is unsignalized;
Sign Type: Stop / Yield

Sign Size: _____ cm x _____ cm

Sign Condition:

NA: New / Good / Poor / Missing

SA: New / Good / Poor / Missing

WA: New / Good / Poor / Missing

EA: New / Good / Poor / Missing

Photograph all approach's

including all Signs (Y) N

40

Hwy / Street Name

HWY 403
East

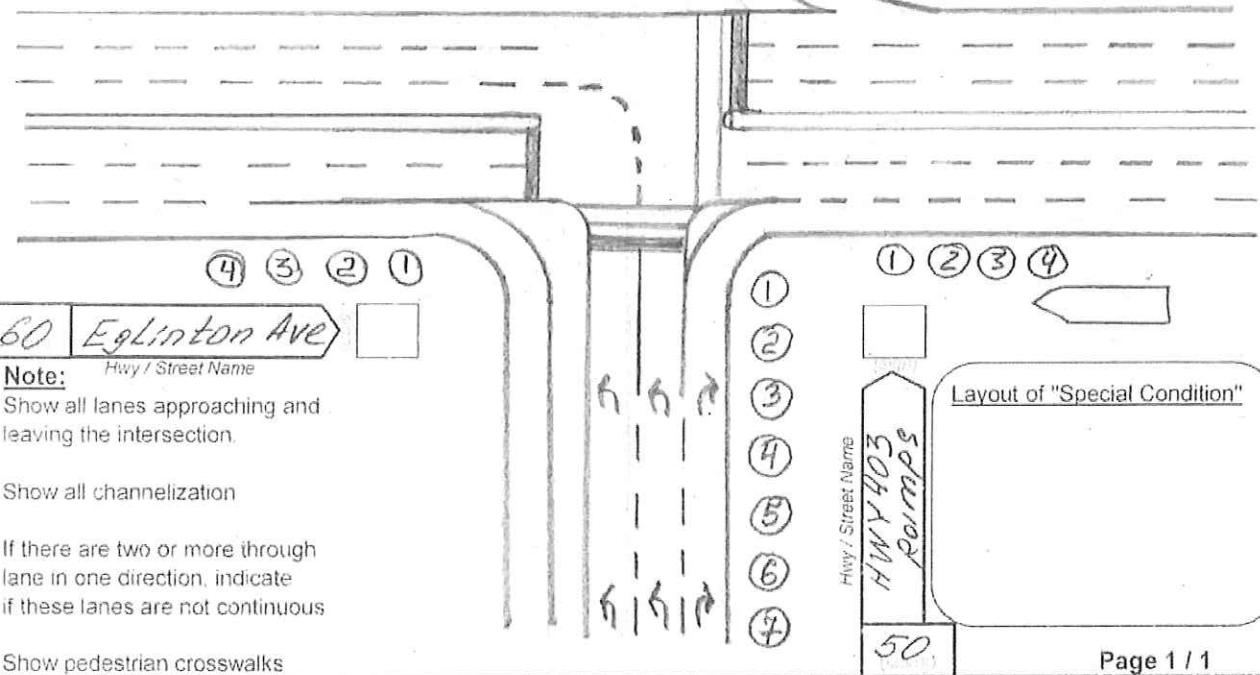
N

INDICATE LOCATION &
DIRECTION OF VEHICLE

Vehicle N S E (W)

Hwy / Street Name

Eglinton Ave 60





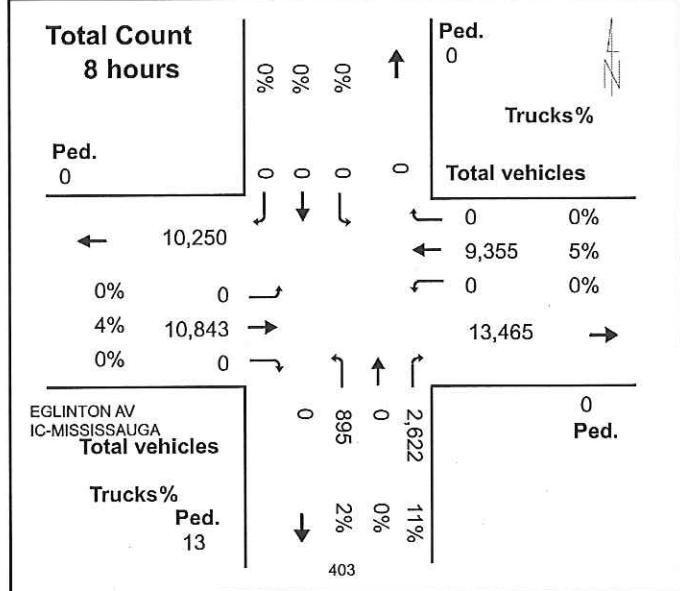
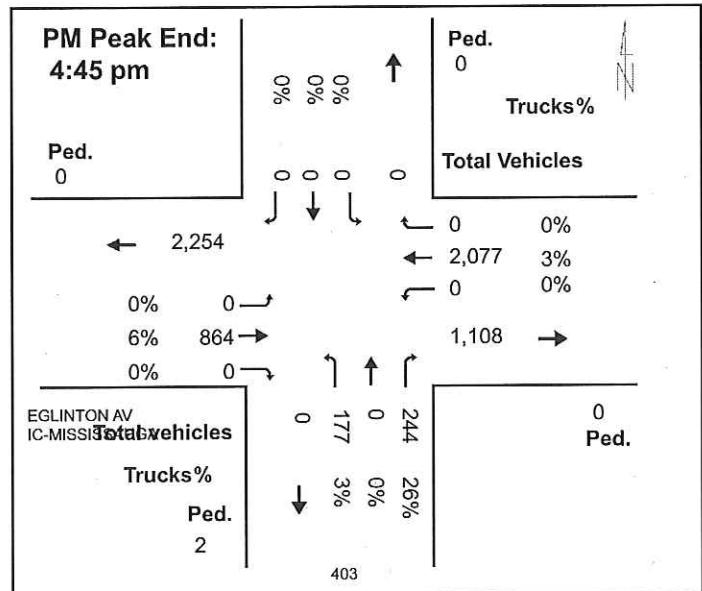
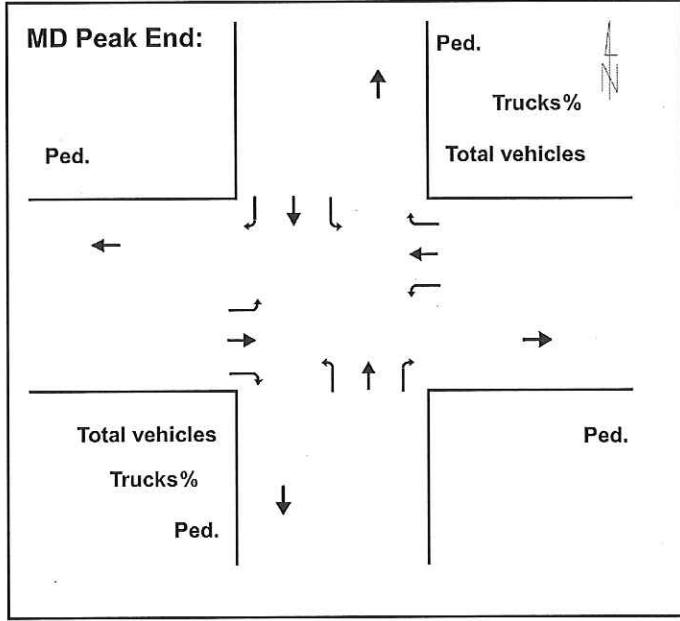
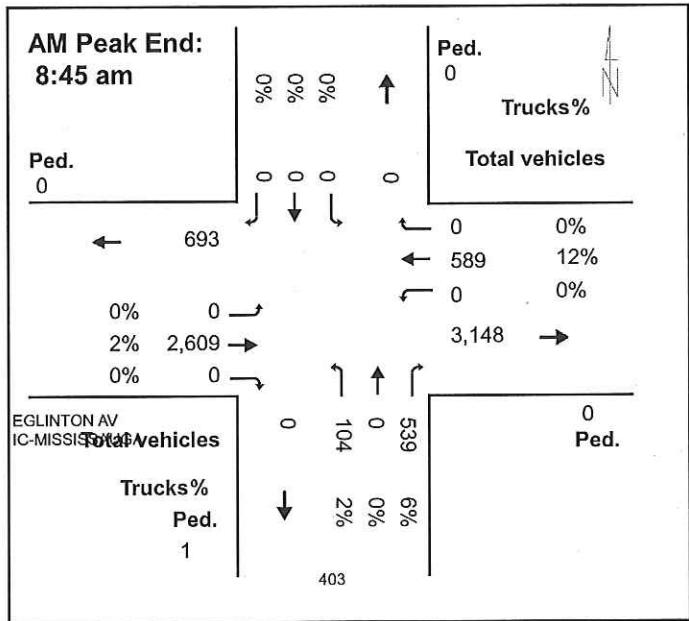
HWY 403 @ EGLINTON AV IC-MISSISSAUGA

Central

Intersection ID:482550000(--E--)

Count Day: Wednesday

Count Date: 12-Oct-2016



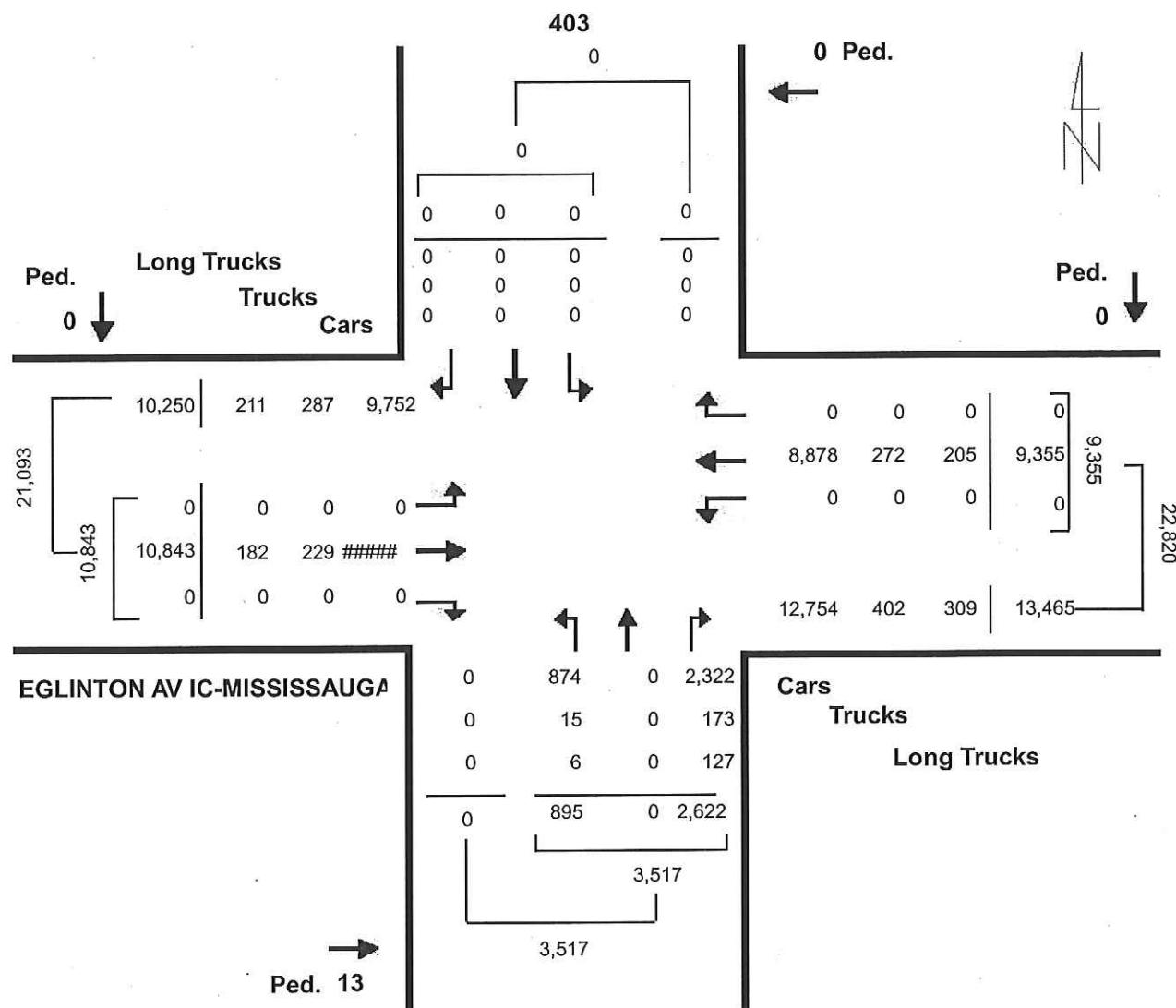
COUNT TOTAL

HWY 403 @ EGLINTON AV IC-MISSISSAUGA

Central

Intersection ID:482550000(--E--)

Date: 12-Oct-2016



15 MIN REPORT

Intersection ID:482550000(--E--) HWY 403 @ EGLINTON AV IC-MISSIONAUGA

Municipality: Central

Date: 12-Oct-2016

| NORTH APPROACH | | EAST APPROACH | | | | | | SOUTH APPROACH | | | | | | WEST APPROACH | | | | | | | | | | | | | | |
|----------------|------|---------------|-------|------|-------|-------|--------|----------------|-------|-------|------|--------|------|---------------|-------|------|--------|-------|------|-------|-------|--------|------|-------|---------|-----|-------|----|
| Time | Cars | Trucks | Left | Thru | Right | Cars | Trucks | Left | Thru | Right | Cars | Trucks | Left | Thru | Right | Cars | Trucks | Left | Thru | Right | Cars | Trucks | Left | Thru | Right | Ped | Total | |
| | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Left | Thru | Right | Heavies | Ped | | |
| Period1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 45 | 0 | 0 | 2 | 0 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 8 | 0 | 0 | |
| 6:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 0 | 2 | 0 | 0 | 5 | 0 | 0 | 13 | 0 | 96 | 0 | 0 | 2 | 0 | 0 | 0 | 4 | 0 |
| 6:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52 | 0 | 0 | 9 | 0 | 0 | 13 | 0 | 0 | 18 | 0 | 118 | 0 | 0 | 3 | 0 | 0 | 0 | 5 | 0 |
| 7:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 0 | 0 | 14 | 0 | 0 | 10 | 0 | 0 | 19 | 0 | 111 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 |
| 7:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 89 | 0 | 0 | 13 | 0 | 0 | 8 | 0 | 0 | 17 | 0 | 77 | 1 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| 7:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 114 | 0 | 0 | 8 | 0 | 0 | 4 | 0 | 0 | 12 | 0 | 71 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 10 |
| 7:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 92 | 0 | 0 | 9 | 0 | 0 | 6 | 0 | 0 | 18 | 0 | 73 | 0 | 0 | 1 | 0 | 0 | 0 | 6 | 0 |
| 8:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 124 | 0 | 0 | 4 | 0 | 0 | 7 | 0 | 0 | 27 | 0 | 113 | 0 | 0 | 2 | 0 | 0 | 0 | 5 | 0 |
| 8:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132 | 0 | 0 | 9 | 0 | 0 | 4 | 0 | 0 | 21 | 0 | 138 | 0 | 0 | 9 | 0 | 0 | 0 | 4 | 0 |
| 8:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118 | 0 | 0 | 14 | 0 | 0 | 8 | 0 | 0 | 30 | 0 | 121 | 0 | 0 | 7 | 0 | 0 | 0 | 12 | 0 |
| 8:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 145 | 0 | 0 | 17 | 0 | 0 | 7 | 0 | 0 | 24 | 0 | 134 | 1 | 0 | 3 | 1 | 0 | 0 | 5 | 0 |
| 9:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 137 | 0 | 0 | 11 | 0 | 0 | 6 | 0 | 0 | 31 | 0 | 143 | 0 | 0 | 7 | 0 | 0 | 0 | 7 | 0 |
| 9:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 179 | 0 | 0 | 13 | 0 | 0 | 4 | 0 | 0 | 21 | 0 | 122 | 2 | 0 | 9 | 2 | 0 | 0 | 3 | 0 |
| 9:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 0 | 0 | 9 | 0 | 0 | 9 | 0 | 0 | 22 | 0 | 93 | 1 | 0 | 5 | 0 | 0 | 0 | 6 | 0 |
| 9:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 0 | 0 | 10 | 0 | 0 | 7 | 0 | 0 | 30 | 0 | 91 | 0 | 0 | 10 | 0 | 0 | 0 | 16 | 0 |
| 10:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 143 | 0 | 0 | 16 | 0 | 0 | 9 | 0 | 0 | 24 | 0 | 86 | 1 | 0 | 3 | 0 | 0 | 0 | 7 | 0 |
| Period2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 15:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 371 | 0 | 0 | 8 | 0 | 0 | 9 | 0 | 0 | 17 | 0 | 31 | 2 | 0 | 12 | 1 | 0 | 5 | 1 | 0 |
| 15:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 380 | 0 | 0 | 10 | 0 | 0 | 3 | 0 | 0 | 23 | 0 | 33 | 1 | 0 | 5 | 0 | 0 | 0 | 10 | 0 |
| 15:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 414 | 0 | 0 | 6 | 0 | 0 | 3 | 0 | 0 | 24 | 0 | 32 | 0 | 0 | 5 | 0 | 0 | 0 | 8 | 0 |
| 16:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 485 | 0 | 0 | 11 | 0 | 0 | 7 | 0 | 0 | 19 | 0 | 40 | 1 | 0 | 8 | 0 | 0 | 0 | 204 | 0 |
| 16:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 508 | 0 | 0 | 9 | 0 | 0 | 6 | 0 | 0 | 41 | 0 | 39 | 2 | 0 | 18 | 0 | 0 | 0 | 207 | 0 |
| 16:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 485 | 0 | 0 | 12 | 0 | 0 | 4 | 0 | 0 | 54 | 0 | 54 | 1 | 0 | 7 | 1 | 0 | 2 | 199 | 0 |
| 16:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 534 | 0 | 0 | 6 | 0 | 0 | 10 | 0 | 0 | 57 | 0 | 48 | 1 | 0 | 6 | 0 | 0 | 0 | 205 | 0 |
| 17:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 471 | 0 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 37 | 0 | 50 | 0 | 0 | 10 | 0 | 0 | 0 | 3 | 2 |
| 17:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 515 | 0 | 0 | 7 | 0 | 0 | 6 | 0 | 0 | 41 | 0 | 39 | 2 | 0 | 18 | 0 | 0 | 0 | 216 | 0 |
| 17:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 497 | 0 | 0 | 6 | 0 | 0 | 4 | 0 | 0 | 26 | 0 | 39 | 1 | 0 | 8 | 0 | 0 | 0 | 189 | 0 |
| 17:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 466 | 0 | 0 | 3 | 0 | 0 | 3 | 0 | 0 | 30 | 0 | 40 | 0 | 0 | 4 | 0 | 0 | 0 | 219 | 0 |
| 18:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 424 | 0 | 0 | 5 | 0 | 0 | 8 | 0 | 0 | 35 | 0 | 40 | 0 | 0 | 4 | 0 | 0 | 0 | 198 | 0 |
| 18:15 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 458 | 0 | 0 | 9 | 0 | 0 | 6 | 0 | 0 | 31 | 0 | 33 | 0 | 0 | 6 | 0 | 0 | 0 | 194 | 0 |
| 18:30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 488 | 0 | 0 | 5 | 0 | 0 | 7 | 0 | 0 | 33 | 0 | 49 | 0 | 0 | 4 | 0 | 0 | 0 | 192 | 0 |
| 18:45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 394 | 0 | 0 | 6 | 0 | 0 | 10 | 0 | 0 | 38 | 0 | 44 | 0 | 0 | 6 | 0 | 0 | 0 | 188 | 0 |
| 19:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 250 | 0 | 0 | 5 | 0 | 0 | 5 | 0 | 0 | 40 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 166 | 0 |

Signal Timing Report

Runtime: 2019-09-11 12:48:21

Device: 2701

Signal Timing Report

Runtime: 2018-12-13 13:21:27

Device: 2702

| Region: Mississauga | | Signal ID: 2702 | | Location: EGLINTON AVENUE E at Tomken Road | | | | | | |
|---------------------|-----------|-----------------|-----------------|--|------------------|--------------|------------------|--------------|----------------|--|
| Phase | Units | 1 WB-L | 2 EB | 3 SB-L | 4 NB | 5 EB-L | 6 WB | 7 NB-L | 8 SB | |
| Walk | Sec | 0 | 12 | 0 | 13 | 0 | 12 | 0 | 13 | |
| Ped Clear | Sec | 0 | 18 | 0 | 19 | 0 | 18 | 0 | 19 | |
| Min Green | Sec | 5 | 8 | 5 | 8 | 5 | 8 | 5 | 8 | |
| Passage | Sec | 2.0 | 3.0 | 2.0 | 3.0 | 2.0 | 3.0 | 2.0 | 3.0 | |
| Maximum 1 | Sec | 15 | 32 | 15 | 30 | 25 | 32 | 15 | 30 | |
| Maximum 2 | Sec | 15 | 32 | 15 | 30 | 25 | 32 | 15 | 30 | |
| Yellow Change | Sec | 3.0 | 4.0 | 3.0 | 4.0 | 3.0 | 4.0 | 3.0 | 4.0 | |
| Red Clearance | Sec | 0.0 | 2.5 | 0.0 | 3.0 | 2.0 | 2.5 | 0.0 | 3.0 | |
| Red Revert | Sec | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Added Initial | Sec | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Max Initial | Sec | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Time Before | Sec | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Cars Before | Veh | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Time To Reduce | Sec | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Reduce By | Sec | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Min Gap | Sec | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| Dynamic Max Limit | Sec | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Dynamic Max Step | Sec | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | |
| [P2] Start Up | Enum | phaseNotOn | redClear | phaseNotOn | phaseNotOn | phaseNotOn | redClear | phaseNotOn | phaseNotOn | |
| [P2] Options | Bit | Enabled | Enabled | Enabled | Enabled | Enabled | Enabled | Enabled | Enabled | |
| | | Non Lock Det | Non Actuated 1 | Non Lock Det | Non Lock Det | Non Lock Det | Non Actuated 1 | Non Lock Det | Non Lock Det | |
| | | | Max Veh Recall | | Max Veh Recall | | Max Veh Recall | | Max Veh Recall | |
| | | | Ped Recall | | Dual Entry | | Ped Recall | | Dual Entry | |
| | | | Dual Entry | | Act Rest In Walk | | Act Rest In Walk | | | |
| [P2] Ring | Ring | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | |
| [P2] Concurrency | Phase (,) | (5,6) | (5,6) | (7,8) | (7,8) | (1,2) | (1,2) | (3,4) | (3,4) | |
| Coord Pattern | Units | 1 2 | 3 4 | 5 6 | 7 8 | | | | | |
| Cycle Time | Sec | 160 | 160 | 160 | 0 | 0 | 0 | 0 | 0 | |
| Offset | Sec | 114 | 58 | 58 | 0 | 0 | 0 | 0 | 0 | |
| Split | Split | 1 | 2 | 3 | 0 | 0 | 0 | 0 | 0 | |
| Sequence | Sequence | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | |
| Coord Split | Units | 1 2 | 3 4 | 5 6 | 7 8 | | | | | |
| Split 1 - Mode | Enum | none | none | none | none | none | none | phaseOmitted | none | |
| Split 1 - Time | Sec | 12 | 75 | 14 | 59 | 37 | 50 | 0 | 73 | |
| Split 1 - Coord | Enum | false | true | false | false | false | true | false | false | |
| Split 2 - Mode | Enum | none | none | none | none | none | none | phaseOmitted | none | |
| Split 2 - Time | Sec | 19 | 61 | 22 | 58 | 29 | 51 | 0 | 80 | |
| Split 2 - Coord | Enum | false | true | false | false | false | true | false | false | |
| Split 3 - Mode | Enum | none | none | none | none | none | none | none | none | |
| Split 3 - Time | Sec | 30 | 53 | 18 | 59 | 22 | 61 | 21 | 56 | |
| Split 3 - Coord | Enum | false | true | false | false | false | true | false | false | |
| TB Schedule | Units | 1 2 | 3 4 | 5 6 | 7 8 | | | | | |
| Month | Bit | JFMAMJJASOND | JFMAMJJASOND | JFMAMJJASOND | J----- | -F----- | --M----- | ---M----- | ----J---- | |
| Day of Week | Bit | -MTWTF- | S----- | -----S | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | |
| Day of Month | Bit | 123456789012345 | 12345678901234 | 12345678901234 | 1----- | -----9----- | ----- | -----1----- | -----2----- | |
| | | 678901234567890 | 56789012345678 | 56789012345678 | ----- | ----- | -----0----- | ----- | ----- | |
| | | 1 | 901 | 901 | | | | | | |
| Day Plan | Number | 1 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | |
| TB Schedule | Units | 9 10 | 11 12 | 13 14 | 15 16 | | | | | |
| Month | Bit | -----A--- | -----S-- | -----O-- | -----D | -----D | -----D | 0 | 0 | |
| Day of Week | Bit | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | SMTWTFS | |
| Day of Month | Bit | -----6----- | -----3----- | -----8----- | ----- | ----- | ----- | 0 | 0 | |
| Day Plan | Number | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | |
| TB Dayplan | Units | 1 2 | 3 4 | 5 6 | 7 8 | | | | | |
| Plan 1 Hour | Hour | 0 | 6 | 9 | 15 | 19 | 0 | 0 | 0 | |
| Plan 1 Minute | Min | 0 | 0 | 30 | 0 | 30 | 0 | 0 | 0 | |
| Plan 1 Action | Number | 8 | 1 | 2 | 3 | 2 | 0 | 0 | 0 | |
| Plan 2 Hour | Hour | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Plan 2 Minute | Min | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Plan 2 Action | Number | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Plan 3 Hour | Hour | 0 | 8 | 23 | 0 | 0 | 0 | 0 | 0 | |
| Plan 3 Minute | Min | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Plan 3 Action | Number | 8 | 2 | 8 | 0 | 0 | 0 | 0 | 0 | |
| TB Action | Units | 1 2 | 3 4 | 5 6 | 7 8 | | | | | |
| Pattern | Enum | Pattern 1 | Pattern 2 | Pattern 3 | Pattern 4 | Pattern 5 | Pattern 6 | Pattern 7 | Free | |
| Aux. Functions | Bit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Spec. Functions | Bit | 0 | 0 | 0 | 0 | 0 | 0 | 0 | Special Func 4 | |

Appendix B:

Synchro Analysis Output

Appendix B1

Existing Condition

Queues

1: Highway 403 NB Off-Ramp & Eglinton Ave E

16/12/2018



| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|--------|-------|-------|------|
| Lane Group Flow (vph) | 2609 | 589 | 104 | 539 |
| v/c Ratio | 0.95 | 0.17 | 0.20 | 0.35 |
| Control Delay | 23.4 | 4.9 | 45.9 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 23.4 | 4.9 | 45.9 | 0.6 |
| Queue Length 50th (m) | 247.1 | 14.0 | 11.8 | 0.0 |
| Queue Length 95th (m) | #309.9 | 17.9 | 20.4 | 0.0 |
| Internal Link Dist (m) | 315.3 | 297.1 | 382.4 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 2747 | 3415 | 514 | 1524 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.95 | 0.17 | 0.20 | 0.35 |

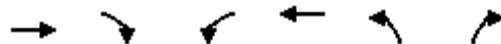
Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis
1: Highway 403 NB Off-Ramp & Eglinton Ave E

16/12/2018



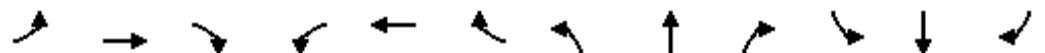
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------|------|------|---------------------------|-------|-------|
| Lane Configurations | | | | | | |
| Volume (vph) | 2609 | 0 | 0 | 589 | 104 | 539 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.5 | | | 6.5 | 7.0 | 4.0 |
| Lane Util. Factor | *1.00 | | | 0.91 | 0.97 | 1.00 |
| Fr _t | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3725 | | | 4631 | 3433 | 1524 |
| Flt Permitted | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3725 | | | 4631 | 3433 | 1524 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 2609 | 0 | 0 | 589 | 104 | 539 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 2609 | 0 | 0 | 589 | 104 | 539 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 12% | 2% | 6% |
| Turn Type | NA | | | NA | Perm | Free |
| Protected Phases | 4 | | | 8 | | |
| Permitted Phases | | | | 2 | Free | |
| Actuated Green, G (s) | 88.5 | | | 88.5 | 18.0 | 120.0 |
| Effective Green, g (s) | 88.5 | | | 88.5 | 18.0 | 120.0 |
| Actuated g/C Ratio | 0.74 | | | 0.74 | 0.15 | 1.00 |
| Clearance Time (s) | 6.5 | | | 6.5 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 2747 | | | 3415 | 514 | 1524 |
| v/s Ratio Prot | c0.70 | | | 0.13 | | |
| v/s Ratio Perm | | | | 0.03 | c0.35 | |
| v/c Ratio | 0.95 | | | 0.17 | 0.20 | 0.35 |
| Uniform Delay, d1 | 13.8 | | | 4.7 | 44.7 | 0.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 8.2 | | | 0.0 | 0.9 | 0.6 |
| Delay (s) | 22.0 | | | 4.8 | 45.6 | 0.6 |
| Level of Service | C | | | A | D | A |
| Approach Delay (s) | 22.0 | | | 4.8 | 7.9 | |
| Approach LOS | C | | | A | A | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | 17.0 | | | HCM 2000 Level of Service | B | |
| HCM 2000 Volume to Capacity ratio | 0.87 | | | | | |
| Actuated Cycle Length (s) | 120.0 | | | Sum of lost time (s) | 13.5 | |
| Intersection Capacity Utilization | 86.7% | | | ICU Level of Service | E | |
| Analysis Period (min) | 15 | | | | | |

c Critical Lane Group

Queues

2: Tomken Rd & Eglinton Ave E

16/12/2018



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| Lane Group Flow (vph) | 517 | 1881 | 123 | 51 | 455 | 189 | 117 | 536 | 139 | 138 | 225 | 182 |
| V/c Ratio | 0.84 | 0.86 | 0.19 | 0.32 | 0.36 | 0.35 | 0.25 | 0.56 | 0.28 | 0.44 | 0.24 | 0.14 |
| Control Delay | 61.0 | 37.0 | 4.7 | 22.3 | 37.5 | 6.9 | 23.8 | 42.3 | 7.8 | 27.4 | 36.0 | 0.2 |
| 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 | 61.0 | 37.0 | 4.7 | 22.3 | 37.5 | 6.9 | 23.8 | 42.3 | 7.8 | 27.4 | 36.0 | 0.2 |
| Queue Length 50th (m) | 65.4 | 159.9 | 0.0 | 6.1 | 34.8 | 0.0 | 18.3 | 62.4 | 0.2 | 21.9 | 23.4 | 0.0 |
| Queue Length 95th (m) | 85.1 | 187.3 | 12.1 | 12.7 | 46.2 | 18.4 | 31.4 | 84.2 | 16.9 | 36.7 | 36.1 | 0.0 |
| Internal Link Dist (m) | | 243.1 | | | 294.8 | | | 402.8 | | | 371.6 | |
| Turn Bay Length (m) | 125.0 | | 115.0 | 100.0 | | 105.0 | 125.0 | | 50.0 | 110.0 | | 150.0 |
| Base Capacity (vph) | 675 | 2199 | 646 | 265 | 1254 | 537 | 523 | 949 | 488 | 348 | 938 | 1306 |
| 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 | 0.77 | 0.86 | 0.19 | 0.19 | 0.36 | 0.35 | 0.22 | 0.56 | 0.28 | 0.40 | 0.24 | 0.14 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis

2: Tomken Rd & Eglinton Ave E

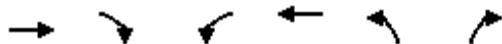
16/12/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|-------|-------|-------|------|------|-------|-------|------|-------|------|-------|
| Lane Configurations | ↑↑ | ↑↑↑ | ↑ | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ |
| Volume (vph) | 517 | 1881 | 123 | 51 | 455 | 189 | 117 | 536 | 139 | 138 | 225 | 182 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | 4.0 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 1.00 | 1.00 | 0.99 | 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) | 3335 | 5085 | 1333 | 1671 | 4550 | 1453 | 1696 | 3539 | 1446 | 1616 | 3374 | 1306 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.61 | 1.00 | 1.00 | 0.31 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3335 | 5085 | 1333 | 206 | 4550 | 1453 | 1092 | 3539 | 1446 | 521 | 3374 | 1306 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 517 | 1881 | 123 | 51 | 455 | 189 | 117 | 536 | 139 | 138 | 225 | 182 |
| RTOR Reduction (vph) | 0 | 0 | 70 | 0 | 0 | 137 | 0 | 0 | 101 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 517 | 1881 | 53 | 51 | 455 | 52 | 117 | 536 | 38 | 138 | 225 | 182 |
| Confl. Peds. (#/hr) | 23 | | 68 | 68 | | 23 | 32 | | 33 | 33 | | 32 |
| Heavy Vehicles (%) | 5% | 2% | 1% | 8% | 14% | 4% | 3% | 2% | 2% | 11% | 7% | 21% |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | 2 | 6 | | 6 | 4 | | 4 | 8 | | Free |
| Actuated Green, G (s) | 22.9 | 52.8 | 52.8 | 40.3 | 34.1 | 34.1 | 43.7 | 33.1 | 33.1 | 46.3 | 34.4 | 123.5 |
| Effective Green, g (s) | 22.9 | 52.8 | 52.8 | 40.3 | 34.1 | 34.1 | 43.7 | 33.1 | 33.1 | 46.3 | 34.4 | 123.5 |
| Actuated g/C Ratio | 0.19 | 0.43 | 0.43 | 0.33 | 0.28 | 0.28 | 0.35 | 0.27 | 0.27 | 0.37 | 0.28 | 1.00 |
| Clearance Time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | |
| 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 | |
| Lane Grp Cap (vph) | 618 | 2173 | 569 | 140 | 1256 | 401 | 438 | 948 | 387 | 300 | 939 | 1306 |
| v/s Ratio Prot | c0.16 | c0.37 | | 0.02 | 0.10 | | 0.02 | c0.15 | | c0.04 | 0.07 | |
| v/s Ratio Perm | | | 0.04 | 0.10 | | 0.04 | 0.07 | | 0.03 | 0.13 | | 0.14 |
| v/c Ratio | 0.84 | 0.87 | 0.09 | 0.36 | 0.36 | 0.13 | 0.27 | 0.57 | 0.10 | 0.46 | 0.24 | 0.14 |
| Uniform Delay, d1 | 48.5 | 32.1 | 21.1 | 30.5 | 36.0 | 33.6 | 27.7 | 39.0 | 34.0 | 27.0 | 34.4 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 9.6 | 4.9 | 0.3 | 1.6 | 0.8 | 0.7 | 0.3 | 2.4 | 0.5 | 1.1 | 0.6 | 0.2 |
| Delay (s) | 58.1 | 37.1 | 21.4 | 32.1 | 36.8 | 34.2 | 28.0 | 41.4 | 34.5 | 28.1 | 35.0 | 0.2 |
| Level of Service | E | D | C | C | D | C | C | D | C | C | D | A |
| Approach Delay (s) | | 40.6 | | | 35.7 | | | 38.2 | | | 21.7 | |
| Approach LOS | | D | | | D | | | D | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | 37.2 | | | | | | | | | D |
| HCM 2000 Volume to Capacity ratio | | | 0.74 | | | | | | | | | |
| Actuated Cycle Length (s) | | | 123.5 | | | | | | | | | 21.5 |
| Intersection Capacity Utilization | | | 80.1% | | | | | | | | | D |
| Analysis Period (min) | | | 15 | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Unsignalized Intersection Capacity Analysis

3: Site Access & Eglinton Ave E

16/12/2018



| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
|-----------------------------------|-------|------|-------|----------------------|------|------|------|------|
| Lane Configurations | | | | | | | | |
| Volume (veh/h) | 3134 | 14 | 1 | 580 | 9 | 12 | | |
| Sign Control | Free | | | Free | Stop | | | |
| Grade | 0% | | | 0% | 0% | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Hourly flow rate (vph) | 3134 | 14 | 1 | 580 | 9 | 12 | | |
| Pedestrians | | | | | | | | |
| Lane Width (m) | | | | | | | | |
| Walking Speed (m/s) | | | | | | | | |
| Percent Blockage | | | | | | | | |
| Right turn flare (veh) | | | | | | | | |
| Median type | TWLTL | | | None | | | | |
| Median storage veh | 2 | | | | | | | |
| Upstream signal (m) | 321 | | | 267 | | | | |
| pX, platoon unblocked | | | 0.41 | 0.42 | 0.41 | | | |
| vC, conflicting volume | | | 3148 | 3336 | 1052 | | | |
| vC1, stage 1 conf vol | | | | 3141 | | | | |
| vC2, stage 2 conf vol | | | | 195 | | | | |
| vCu, unblocked vol | | | 1228 | 1567 | 0 | | | |
| tC, single (s) | | | 4.1 | 6.8 | 6.9 | | | |
| tC, 2 stage (s) | | | | 5.8 | | | | |
| tF (s) | | | 2.2 | 3.5 | 3.3 | | | |
| p0 queue free % | | | 100 | 91 | 97 | | | |
| cM capacity (veh/h) | | | 237 | 100 | 451 | | | |
| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 | NB 2 |
| Volume Total | 1254 | 1254 | 641 | 117 | 232 | 232 | 9 | 12 |
| Volume Left | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 0 |
| Volume Right | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 12 |
| cSH | 1700 | 1700 | 1700 | 237 | 1700 | 1700 | 100 | 451 |
| Volume to Capacity | 0.74 | 0.74 | 0.38 | 0.00 | 0.14 | 0.14 | 0.09 | 0.03 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 2.3 | 0.7 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 44.5 | 13.2 |
| Lane LOS | | | | A | | | E | B |
| Approach Delay (s) | 0.0 | | | 0.1 | | | 26.6 | |
| Approach LOS | | | | | | | D | |
| Intersection Summary | | | | | | | | |
| Average Delay | | | 0.2 | | | | | |
| Intersection Capacity Utilization | | | 70.9% | ICU Level of Service | | | C | |
| Analysis Period (min) | | | 15 | | | | | |

Queues

1: Highway 403 NB Off-Ramp & Eglinton Ave E

16/12/2018

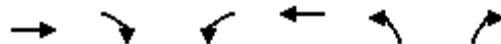


| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 864 | 2077 | 177 | 244 |
| V/c Ratio | 0.43 | 0.70 | 0.18 | 0.19 |
| Control Delay | 13.8 | 18.2 | 34.1 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.8 | 18.2 | 34.1 | 0.3 |
| Queue Length 50th (m) | 58.1 | 123.5 | 16.8 | 0.0 |
| Queue Length 95th (m) | 56.1 | 108.5 | 29.3 | 0.0 |
| Internal Link Dist (m) | 315.3 | 297.1 | 382.4 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 2370 | 3504 | 1011 | 1282 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.59 | 0.18 | 0.19 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
1: Highway 403 NB Off-Ramp & Eglinton Ave E

16/12/2018



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------|------|------|---------------------------|-------|-------|
| Lane Configurations | | | | | | |
| Volume (vph) | 864 | 0 | 0 | 2077 | 177 | 244 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.5 | | | 6.5 | 7.0 | 4.0 |
| Lane Util. Factor | 0.95 | | | 0.91 | 0.97 | 1.00 |
| Fr _t | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3406 | | | 5036 | 3400 | 1282 |
| Flt Permitted | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3406 | | | 5036 | 3400 | 1282 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 864 | 0 | 0 | 2077 | 177 | 244 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 864 | 0 | 0 | 2077 | 177 | 244 |
| Heavy Vehicles (%) | 6% | 0% | 0% | 3% | 3% | 26% |
| Turn Type | NA | | | NA | Perm | Free |
| Protected Phases | 4 | | | 8 | | |
| Permitted Phases | | | | 2 | Free | |
| Actuated Green, G (s) | 70.8 | | | 70.8 | 35.7 | 120.0 |
| Effective Green, g (s) | 70.8 | | | 70.8 | 35.7 | 120.0 |
| Actuated g/C Ratio | 0.59 | | | 0.59 | 0.30 | 1.00 |
| Clearance Time (s) | 6.5 | | | 6.5 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 2009 | | | 2971 | 1011 | 1282 |
| v/s Ratio Prot | 0.25 | | | c0.41 | | |
| v/s Ratio Perm | | | | 0.05 | c0.19 | |
| v/c Ratio | 0.43 | | | 0.70 | 0.18 | 0.19 |
| Uniform Delay, d1 | 13.5 | | | 17.2 | 31.2 | 0.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.1 | | | 0.7 | 0.4 | 0.3 |
| Delay (s) | 13.7 | | | 17.9 | 31.6 | 0.3 |
| Level of Service | B | | | B | C | A |
| Approach Delay (s) | 13.7 | | | 17.9 | 13.5 | |
| Approach LOS | B | | | B | B | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | 16.3 | | | HCM 2000 Level of Service | B | |
| HCM 2000 Volume to Capacity ratio | 0.54 | | | | | |
| Actuated Cycle Length (s) | 120.0 | | | Sum of lost time (s) | 13.5 | |
| Intersection Capacity Utilization | 56.4% | | | ICU Level of Service | B | |
| Analysis Period (min) | 15 | | | | | |

c Critical Lane Group

Queues

2: Tomken Rd & Eglinton Ave E

16/12/2018



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|------|-------|-------|--------|-------|-------|------|-------|-------|--------|-------|
| Lane Group Flow (vph) | 181 | 711 | 148 | 203 | 1736 | 118 | 218 | 358 | 101 | 143 | 777 | 693 |
| V/c Ratio | 0.57 | 0.39 | 0.25 | 0.50 | 0.96 | 0.19 | 0.81 | 0.38 | 0.21 | 0.35 | 0.87 | 0.45 |
| Control Delay | 59.9 | 29.3 | 5.3 | 20.0 | 52.1 | 4.4 | 50.8 | 38.8 | 4.2 | 25.4 | 55.8 | 0.9 |
| 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 | 59.9 | 29.3 | 5.3 | 20.0 | 52.1 | 4.4 | 50.8 | 38.8 | 4.2 | 25.4 | 55.8 | 0.9 |
| Queue Length 50th (m) | 23.0 | 48.4 | 0.0 | 26.5 | 157.5 | 0.0 | 36.2 | 39.3 | 0.0 | 22.7 | 101.6 | 0.0 |
| Queue Length 95th (m) | 34.3 | 61.9 | 14.3 | 41.2 | #206.5 | 10.8 | #75.9 | 55.9 | 8.6 | 37.6 | #136.7 | 0.0 |
| Internal Link Dist (m) | | | | 243.1 | | 294.8 | | | 402.8 | | | 371.6 |
| Turn Bay Length (m) | 125.0 | | 115.0 | 100.0 | | 105.0 | 125.0 | | 50.0 | 110.0 | | 150.0 |
| Base Capacity (vph) | 632 | 1822 | 601 | 444 | 1814 | 615 | 282 | 941 | 482 | 455 | 897 | 1550 |
| 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 | 0.29 | 0.39 | 0.25 | 0.46 | 0.96 | 0.19 | 0.77 | 0.38 | 0.21 | 0.31 | 0.87 | 0.45 |

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Tomken Rd & Eglinton Ave E

16/12/2018

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|-------|------|-------|-------|------|-------|------|------|-------|------|-------|
| Lane Configurations | ↑↑ | ↑↑↑↑ | ↑ | ↑ | ↑↑↑↑ | ↑ | ↑↑ | ↑↑ | ↑ | ↑ | ↑↑↑↑ | ↑ |
| Volume (vph) | 181 | 711 | 148 | 203 | 1736 | 118 | 218 | 358 | 101 | 143 | 777 | 693 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | 4.0 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 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) | 3127 | 4848 | 1355 | 1763 | 5036 | 1474 | 1787 | 3505 | 1449 | 1662 | 3574 | 1550 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.33 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.51 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3127 | 4848 | 1355 | 615 | 5036 | 1474 | 227 | 3505 | 1449 | 900 | 3574 | 1550 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 181 | 711 | 148 | 203 | 1736 | 118 | 218 | 358 | 101 | 143 | 777 | 693 |
| RTOR Reduction (vph) | 0 | 0 | 92 | 0 | 0 | 75 | 0 | 0 | 74 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 181 | 711 | 56 | 203 | 1736 | 43 | 218 | 358 | 27 | 143 | 777 | 693 |
| Confl. Peds. (#/hr) | 13 | | 62 | 62 | | 13 | 31 | | 36 | 36 | | 31 |
| Heavy Vehicles (%) | 12% | 7% | 1% | 1% | 3% | 5% | 1% | 3% | 1% | 6% | 1% | 2% |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | 2 | 6 | | 6 | 4 | | 4 | 8 | | Free |
| Actuated Green, G (s) | 12.5 | 46.4 | 46.4 | 57.1 | 44.5 | 44.5 | 47.2 | 33.2 | 33.2 | 42.8 | 31.0 | 123.5 |
| Effective Green, g (s) | 12.5 | 46.4 | 46.4 | 57.1 | 44.5 | 44.5 | 47.2 | 33.2 | 33.2 | 42.8 | 31.0 | 123.5 |
| Actuated g/C Ratio | 0.10 | 0.38 | 0.38 | 0.46 | 0.36 | 0.36 | 0.38 | 0.27 | 0.27 | 0.35 | 0.25 | 1.00 |
| Clearance Time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | |
| 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 | |
| Lane Grp Cap (vph) | 316 | 1821 | 509 | 401 | 1814 | 531 | 263 | 942 | 389 | 384 | 897 | 1550 |
| v/s Ratio Prot | c0.06 | 0.15 | | 0.05 | c0.34 | | c0.09 | 0.10 | | 0.04 | 0.22 | |
| v/s Ratio Perm | | | 0.04 | 0.18 | | 0.03 | c0.22 | | 0.02 | 0.09 | | c0.45 |
| v/c Ratio | 0.57 | 0.39 | 0.11 | 0.51 | 0.96 | 0.08 | 0.83 | 0.38 | 0.07 | 0.37 | 0.87 | 0.45 |
| Uniform Delay, d1 | 53.0 | 28.2 | 25.1 | 20.3 | 38.6 | 26.0 | 29.8 | 36.8 | 33.6 | 28.9 | 44.3 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.5 | 0.6 | 0.4 | 1.0 | 13.1 | 0.3 | 18.9 | 1.2 | 0.3 | 0.6 | 11.0 | 0.9 |
| Delay (s) | 55.5 | 28.8 | 25.5 | 21.3 | 51.7 | 26.3 | 48.7 | 37.9 | 34.0 | 29.5 | 55.3 | 0.9 |
| Level of Service | E | C | C | C | D | C | D | D | C | C | E | A |
| Approach Delay (s) | | 33.0 | | | 47.3 | | | 40.8 | | | 29.6 | |
| Approach LOS | | C | | | D | | | D | | | C | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 38.4 | | | | | | | | | | D |
| HCM 2000 Volume to Capacity ratio | | 0.88 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 123.5 | | | | | | | | | | 21.5 |
| Intersection Capacity Utilization | | 91.0% | | | | | | | | | | F |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Unsignalized Intersection Capacity Analysis

3: Site Access & Eglinton Ave E

16/12/2018



| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
|-----------------------------------|-------|------|-------|----------------------|------|------|------|------|
| Lane Configurations | | | | | | | | |
| Volume (veh/h) | 1094 | 14 | 1 | 2068 | 9 | 12 | | |
| Sign Control | Free | | | Free | Stop | | | |
| Grade | 0% | | | 0% | 0% | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Hourly flow rate (vph) | 1094 | 14 | 1 | 2068 | 9 | 12 | | |
| Pedestrians | | | | | | | | |
| Lane Width (m) | | | | | | | | |
| Walking Speed (m/s) | | | | | | | | |
| Percent Blockage | | | | | | | | |
| Right turn flare (veh) | | | | | | | | |
| Median type | TWLTL | | | None | | | | |
| Median storage veh | 2 | | | | | | | |
| Upstream signal (m) | 321 | | | 267 | | | | |
| pX, platoon unblocked | | | 0.95 | 0.72 | 0.95 | | | |
| vC, conflicting volume | | | 1108 | 1792 | 372 | | | |
| vC1, stage 1 conf vol | | | | 1101 | | | | |
| vC2, stage 2 conf vol | | | | 691 | | | | |
| vCu, unblocked vol | | | 941 | 321 | 168 | | | |
| tC, single (s) | | | 4.1 | 6.8 | 6.9 | | | |
| tC, 2 stage (s) | | | | 5.8 | | | | |
| tF (s) | | | 2.2 | 3.5 | 3.3 | | | |
| p0 queue free % | | | 100 | 98 | 99 | | | |
| cM capacity (veh/h) | | | 702 | 382 | 813 | | | |
| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 | NB 2 |
| Volume Total | 438 | 438 | 233 | 415 | 827 | 827 | 9 | 12 |
| Volume Left | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 0 |
| Volume Right | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 12 |
| cSH | 1700 | 1700 | 1700 | 702 | 1700 | 1700 | 382 | 813 |
| Volume to Capacity | 0.26 | 0.26 | 0.14 | 0.00 | 0.49 | 0.49 | 0.02 | 0.01 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.4 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.7 | 9.5 |
| Lane LOS | | | | A | | | B | A |
| Approach Delay (s) | 0.0 | | | 0.0 | | | 11.7 | |
| Approach LOS | | | | | | | B | |
| Intersection Summary | | | | | | | | |
| Average Delay | | | 0.1 | | | | | |
| Intersection Capacity Utilization | | | 50.6% | ICU Level of Service | | | A | |
| Analysis Period (min) | | | 15 | | | | | |

Appendix B2

2023 Background Condition

Queues

1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020

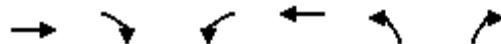


| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 2609 | 604 | 104 | 539 |
| v/c Ratio | 0.88 | 0.17 | 0.23 | 0.35 |
| Control Delay | 13.1 | 4.3 | 47.9 | 0.6 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.1 | 4.3 | 47.9 | 0.6 |
| Queue Length 50th (m) | 179.6 | 13.2 | 12.0 | 0.0 |
| Queue Length 95th (m) | 220.2 | 16.9 | 20.8 | 0.0 |
| Internal Link Dist (m) | 315.3 | 297.1 | 382.4 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 2964 | 3492 | 457 | 1524 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.88 | 0.17 | 0.23 | 0.35 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020



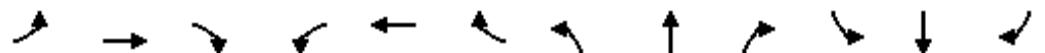
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------|------|------|---------------------------|-------|-------|
| Lane Configurations | ↑↑ | | | ↑↑↑ | ↖↖ | ↗ |
| Volume (vph) | 2609 | 0 | 0 | 604 | 104 | 539 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 1.5 | | | 6.5 | 7.0 | 4.0 |
| Lane Util. Factor | *1.00 | | | 0.91 | 0.97 | 1.00 |
| Fr _t | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3725 | | | 4631 | 3433 | 1524 |
| Flt Permitted | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3725 | | | 4631 | 3433 | 1524 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 2609 | 0 | 0 | 604 | 104 | 539 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 2609 | 0 | 0 | 604 | 104 | 539 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 12% | 2% | 6% |
| Turn Type | NA | | | NA | Perm | Free |
| Protected Phases | 4 | | | 8 | | |
| Permitted Phases | | | | 2 | Free | |
| Actuated Green, G (s) | 90.5 | | | 90.5 | 16.0 | 120.0 |
| Effective Green, g (s) | 95.5 | | | 90.5 | 16.0 | 120.0 |
| Actuated g/C Ratio | 0.80 | | | 0.75 | 0.13 | 1.00 |
| Clearance Time (s) | 6.5 | | | 6.5 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 2964 | | | 3492 | 457 | 1524 |
| v/s Ratio Prot | c0.70 | | | 0.13 | | |
| v/s Ratio Perm | | | | 0.03 | c0.35 | |
| v/c Ratio | 0.88 | | | 0.17 | 0.23 | 0.35 |
| Uniform Delay, d1 | 8.4 | | | 4.2 | 46.5 | 0.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.4 | | | 0.0 | 1.2 | 0.6 |
| Delay (s) | 11.7 | | | 4.2 | 47.6 | 0.6 |
| Level of Service | B | | | A | D | A |
| Approach Delay (s) | 11.7 | | | 4.2 | 8.2 | |
| Approach LOS | B | | | A | A | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | 10.0 | | | HCM 2000 Level of Service | A | |
| HCM 2000 Volume to Capacity ratio | 0.86 | | | | | |
| Actuated Cycle Length (s) | 120.0 | | | Sum of lost time (s) | 13.5 | |
| Intersection Capacity Utilization | 84.6% | | | ICU Level of Service | E | |
| Analysis Period (min) | 15 | | | | | |

c = Critical Lane Group

Queues

2: Tomken Rd & Eglinton Ave E

25/02/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| Lane Group Flow (vph) | 517 | 1881 | 123 | 51 | 467 | 189 | 117 | 592 | 139 | 138 | 248 | 182 |
| V/c Ratio | 0.84 | 0.86 | 0.19 | 0.32 | 0.37 | 0.35 | 0.25 | 0.62 | 0.29 | 0.47 | 0.26 | 0.14 |
| Control Delay | 61.0 | 37.0 | 4.7 | 22.3 | 37.6 | 6.9 | 23.9 | 43.7 | 9.4 | 28.3 | 36.3 | 0.2 |
| 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 | 61.0 | 37.0 | 4.7 | 22.3 | 37.6 | 6.9 | 23.9 | 43.7 | 9.4 | 28.3 | 36.3 | 0.2 |
| Queue Length 50th (m) | 65.4 | 159.9 | 0.0 | 6.1 | 35.8 | 0.0 | 18.3 | 70.3 | 2.1 | 21.9 | 26.0 | 0.0 |
| Queue Length 95th (m) | 85.1 | 187.3 | 12.1 | 12.7 | 47.4 | 18.4 | 31.4 | 93.6 | 19.1 | 36.7 | 39.5 | 0.0 |
| Internal Link Dist (m) | | 243.1 | | | 294.8 | | | 402.8 | | | 371.6 | |
| Turn Bay Length (m) | 125.0 | | 115.0 | 100.0 | | 105.0 | 125.0 | | 50.0 | 110.0 | | 150.0 |
| Base Capacity (vph) | 675 | 2199 | 646 | 265 | 1254 | 537 | 517 | 949 | 481 | 328 | 938 | 1306 |
| 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 | 0.77 | 0.86 | 0.19 | 0.19 | 0.37 | 0.35 | 0.23 | 0.62 | 0.29 | 0.42 | 0.26 | 0.14 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis

2: Tomken Rd & Eglinton Ave E

25/02/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|------|-------|------|------|-------|-------|------|-------|------|-------|
| Lane Configurations | ↑↑ | ↑↑↑ | ↑ | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ |
| Volume (vph) | 517 | 1881 | 123 | 51 | 467 | 189 | 117 | 592 | 139 | 138 | 248 | 182 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | 4.0 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 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) | 3335 | 5085 | 1333 | 1671 | 4550 | 1453 | 1699 | 3539 | 1446 | 1619 | 3374 | 1306 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.60 | 1.00 | 1.00 | 0.26 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3335 | 5085 | 1333 | 206 | 4550 | 1453 | 1070 | 3539 | 1446 | 449 | 3374 | 1306 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 517 | 1881 | 123 | 51 | 467 | 189 | 117 | 592 | 139 | 138 | 248 | 182 |
| RTOR Reduction (vph) | 0 | 0 | 70 | 0 | 0 | 137 | 0 | 0 | 94 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 517 | 1881 | 53 | 51 | 467 | 52 | 117 | 592 | 45 | 138 | 248 | 182 |
| Confl. Peds. (#/hr) | 23 | | 68 | 68 | | 23 | 32 | | 33 | 33 | | 32 |
| Heavy Vehicles (%) | 5% | 2% | 1% | 8% | 14% | 4% | 3% | 2% | 2% | 11% | 7% | 21% |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | 2 | 6 | | 6 | 4 | | 4 | 8 | | Free |
| Actuated Green, G (s) | 22.9 | 52.8 | 52.8 | 40.3 | 34.1 | 34.1 | 43.7 | 33.1 | 33.1 | 46.3 | 34.4 | 123.5 |
| Effective Green, g (s) | 22.9 | 52.8 | 52.8 | 40.3 | 34.1 | 34.1 | 43.7 | 33.1 | 33.1 | 46.3 | 34.4 | 123.5 |
| Actuated g/C Ratio | 0.19 | 0.43 | 0.43 | 0.33 | 0.28 | 0.28 | 0.35 | 0.27 | 0.27 | 0.37 | 0.28 | 1.00 |
| Clearance Time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | |
| 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 | |
| Lane Grp Cap (vph) | 618 | 2173 | 569 | 140 | 1256 | 401 | 432 | 948 | 387 | 281 | 939 | 1306 |
| v/s Ratio Prot | c0.16 | c0.37 | | 0.02 | 0.10 | | 0.02 | c0.17 | | c0.05 | 0.07 | |
| v/s Ratio Perm | | | 0.04 | 0.10 | | 0.04 | 0.07 | | 0.03 | 0.14 | | 0.14 |
| v/c Ratio | 0.84 | 0.87 | 0.09 | 0.36 | 0.37 | 0.13 | 0.27 | 0.62 | 0.12 | 0.49 | 0.26 | 0.14 |
| Uniform Delay, d1 | 48.5 | 32.1 | 21.1 | 30.5 | 36.1 | 33.6 | 27.7 | 39.7 | 34.2 | 27.3 | 34.7 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 9.6 | 4.9 | 0.3 | 1.6 | 0.8 | 0.7 | 0.3 | 3.1 | 0.6 | 1.4 | 0.7 | 0.2 |
| Delay (s) | 58.1 | 37.1 | 21.4 | 32.1 | 36.9 | 34.2 | 28.0 | 42.8 | 34.8 | 28.6 | 35.4 | 0.2 |
| Level of Service | E | D | C | C | D | C | C | D | C | C | D | A |
| Approach Delay (s) | | 40.6 | | | 35.8 | | | 39.5 | | | 22.5 | |
| Approach LOS | | D | | | D | | | D | | | C | |

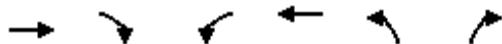
Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 37.5 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.76 | | |
| Actuated Cycle Length (s) | 123.5 | Sum of lost time (s) | 21.5 |
| Intersection Capacity Utilization | 81.6% | ICU Level of Service | D |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis

3: Site Access & Eglinton Ave E

25/02/2020



| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
|-----------------------------------|-------|----------------------|------|------|------|------|------|------|
| Lane Configurations | | | | | | | | |
| Volume (veh/h) | 3134 | 14 | 1 | 595 | 9 | 12 | | |
| Sign Control | Free | | | Free | Stop | | | |
| Grade | 0% | | | 0% | 0% | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Hourly flow rate (vph) | 3134 | 14 | 1 | 595 | 9 | 12 | | |
| Pedestrians | | | | | | | | |
| Lane Width (m) | | | | | | | | |
| Walking Speed (m/s) | | | | | | | | |
| Percent Blockage | | | | | | | | |
| Right turn flare (veh) | | | | | | | | |
| Median type | TWLTL | | | None | | | | |
| Median storage veh | 2 | | | | | | | |
| Upstream signal (m) | 321 | | | 267 | | | | |
| pX, platoon unblocked | | | 0.55 | 0.56 | 0.55 | | | |
| vC, conflicting volume | | | 3148 | 3341 | 1052 | | | |
| vC1, stage 1 conf vol | | | | 3141 | | | | |
| vC2, stage 2 conf vol | | | | 200 | | | | |
| vCu, unblocked vol | | | 2040 | 2244 | 0 | | | |
| tC, single (s) | | | 4.1 | 6.8 | 6.9 | | | |
| tC, 2 stage (s) | | | | 5.8 | | | | |
| tF (s) | | | 2.2 | 3.5 | 3.3 | | | |
| p0 queue free % | | | 99 | 81 | 98 | | | |
| cM capacity (veh/h) | | | 154 | 48 | 600 | | | |
| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 | NB 2 |
| Volume Total | 1254 | 1254 | 641 | 120 | 238 | 238 | 9 | 12 |
| Volume Left | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 0 |
| Volume Right | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 12 |
| cSH | 1700 | 1700 | 1700 | 154 | 1700 | 1700 | 48 | 600 |
| Volume to Capacity | 0.74 | 0.74 | 0.38 | 0.01 | 0.14 | 0.14 | 0.19 | 0.02 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 4.9 | 0.5 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 96.1 | 11.1 |
| Lane LOS | | | | A | | | F | B |
| Approach Delay (s) | 0.0 | | | 0.1 | | | 47.6 | |
| Approach LOS | | | | | | | E | |
| Intersection Summary | | | | | | | | |
| Average Delay | 0.3 | | | | | | | |
| Intersection Capacity Utilization | 70.9% | ICU Level of Service | C | | | | | |
| Analysis Period (min) | 15 | | | | | | | |

Queues

1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020

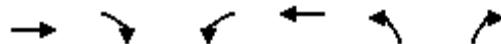


| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 864 | 2130 | 177 | 244 |
| v/c Ratio | 0.42 | 0.70 | 0.18 | 0.19 |
| Control Delay | 12.8 | 17.3 | 35.4 | 0.3 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 12.8 | 17.3 | 35.4 | 0.3 |
| Queue Length 50th (m) | 55.5 | 123.1 | 17.2 | 0.0 |
| Queue Length 95th (m) | 53.8 | 108.8 | 29.7 | 0.0 |
| Internal Link Dist (m) | 315.3 | 297.1 | 382.4 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 2370 | 3504 | 961 | 1282 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.36 | 0.61 | 0.18 | 0.19 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------|------|------|---------------------------|-------|-------|
| Lane Configurations | | | | | | |
| Volume (vph) | 864 | 0 | 0 | 2130 | 177 | 244 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.5 | | | 6.5 | 7.0 | 4.0 |
| Lane Util. Factor | 0.95 | | | 0.91 | 0.97 | 1.00 |
| Fr _t | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3406 | | | 5036 | 3400 | 1282 |
| Flt Permitted | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3406 | | | 5036 | 3400 | 1282 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 864 | 0 | 0 | 2130 | 177 | 244 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 864 | 0 | 0 | 2130 | 177 | 244 |
| Heavy Vehicles (%) | 6% | 0% | 0% | 3% | 3% | 26% |
| Turn Type | NA | | | NA | Perm | Free |
| Protected Phases | 4 | | | 8 | | |
| Permitted Phases | | | | 2 | Free | |
| Actuated Green, G (s) | 72.6 | | | 72.6 | 33.9 | 120.0 |
| Effective Green, g (s) | 72.6 | | | 72.6 | 33.9 | 120.0 |
| Actuated g/C Ratio | 0.60 | | | 0.60 | 0.28 | 1.00 |
| Clearance Time (s) | 6.5 | | | 6.5 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 2060 | | | 3046 | 960 | 1282 |
| v/s Ratio Prot | 0.25 | | | c0.42 | | |
| v/s Ratio Perm | | | | 0.05 | c0.19 | |
| v/c Ratio | 0.42 | | | 0.70 | 0.18 | 0.19 |
| Uniform Delay, d1 | 12.5 | | | 16.2 | 32.6 | 0.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.1 | | | 0.7 | 0.4 | 0.3 |
| Delay (s) | 12.7 | | | 16.9 | 33.0 | 0.3 |
| Level of Service | B | | | B | C | A |
| Approach Delay (s) | 12.7 | | | 16.9 | 14.1 | |
| Approach LOS | B | | | B | B | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | 15.5 | | | HCM 2000 Level of Service | B | |
| HCM 2000 Volume to Capacity ratio | 0.55 | | | | | |
| Actuated Cycle Length (s) | 120.0 | | | Sum of lost time (s) | 13.5 | |
| Intersection Capacity Utilization | 57.5% | | | ICU Level of Service | B | |
| Analysis Period (min) | 15 | | | | | |

c Critical Lane Group

Queues

2: Tomken Rd & Eglinton Ave E

25/02/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|-------|-------|--------|-------|-------|-------|------|-------|--------|-------|
| Lane Group Flow (vph) | 181 | 711 | 148 | 203 | 1780 | 118 | 218 | 395 | 101 | 143 | 858 | 693 |
| V/c Ratio | 0.57 | 0.39 | 0.25 | 0.50 | 0.89 | 0.19 | 0.81 | 0.42 | 0.21 | 0.36 | 0.96 | 0.45 |
| Control Delay | 59.9 | 29.3 | 5.3 | 20.0 | 44.4 | 4.4 | 50.8 | 39.4 | 4.2 | 25.6 | 67.2 | 0.9 |
| 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 | 59.9 | 29.3 | 5.3 | 20.0 | 44.4 | 4.4 | 50.8 | 39.4 | 4.2 | 25.6 | 67.2 | 0.9 |
| Queue Length 50th (m) | 23.0 | 48.4 | 0.0 | 26.5 | 141.9 | 0.0 | 36.2 | 43.9 | 0.0 | 22.7 | 115.5 | 0.0 |
| Queue Length 95th (m) | 34.3 | 61.9 | 14.3 | 41.2 | #181.3 | 10.8 | #75.9 | 61.8 | 8.6 | 37.6 | #159.9 | 0.0 |
| Internal Link Dist (m) | | 243.1 | | | 294.8 | | | 402.8 | | | 371.6 | |
| Turn Bay Length (m) | 125.0 | | 115.0 | 100.0 | | 105.0 | 125.0 | | 50.0 | 110.0 | | 150.0 |
| Base Capacity (vph) | 632 | 1822 | 601 | 444 | 1994 | 615 | 282 | 941 | 482 | 437 | 897 | 1550 |
| 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 | 0.29 | 0.39 | 0.25 | 0.46 | 0.89 | 0.19 | 0.77 | 0.42 | 0.21 | 0.33 | 0.96 | 0.45 |

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Tomken Rd & Eglinton Ave E

25/02/2020

| Movement | EBL | EBT | EBC | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|-------|------|-------|-------|------|-------|------|------|-------|-------|-------|
| Lane Configurations | ↑↑ | ↑↑↑↑ | ↑ | ↑ | ↑↑↑↑ | ↑ | ↑↑ | ↑↑ | ↑ | ↑↑ | ↑↑↑↑ | ↑ |
| Volume (vph) | 181 | 711 | 148 | 203 | 1780 | 118 | 218 | 395 | 101 | 143 | 858 | 693 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | 4.0 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | *1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 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) | 3127 | 4848 | 1355 | 1763 | 5534 | 1474 | 1787 | 3505 | 1449 | 1669 | 3574 | 1550 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.33 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.48 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3127 | 4848 | 1355 | 615 | 5534 | 1474 | 227 | 3505 | 1449 | 835 | 3574 | 1550 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 181 | 711 | 148 | 203 | 1780 | 118 | 218 | 395 | 101 | 143 | 858 | 693 |
| RTOR Reduction (vph) | 0 | 0 | 92 | 0 | 0 | 75 | 0 | 0 | 74 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 181 | 711 | 56 | 203 | 1780 | 43 | 218 | 395 | 27 | 143 | 858 | 693 |
| Confl. Peds. (#/hr) | 13 | | 62 | 62 | | 13 | 31 | | 36 | 36 | | 31 |
| Heavy Vehicles (%) | 12% | 7% | 1% | 1% | 3% | 5% | 1% | 3% | 1% | 6% | 1% | 2% |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | 2 | 6 | | 6 | 4 | | 4 | 8 | | Free |
| Actuated Green, G (s) | 12.5 | 46.4 | 46.4 | 57.1 | 44.5 | 44.5 | 47.2 | 33.2 | 33.2 | 42.8 | 31.0 | 123.5 |
| Effective Green, g (s) | 12.5 | 46.4 | 46.4 | 57.1 | 44.5 | 44.5 | 47.2 | 33.2 | 33.2 | 42.8 | 31.0 | 123.5 |
| Actuated g/C Ratio | 0.10 | 0.38 | 0.38 | 0.46 | 0.36 | 0.36 | 0.38 | 0.27 | 0.27 | 0.35 | 0.25 | 1.00 |
| Clearance Time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | |
| 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 | |
| Lane Grp Cap (vph) | 316 | 1821 | 509 | 401 | 1994 | 531 | 263 | 942 | 389 | 369 | 897 | 1550 |
| v/s Ratio Prot | c0.06 | 0.15 | | 0.05 | c0.32 | | c0.09 | 0.11 | | 0.04 | c0.24 | |
| v/s Ratio Perm | | | 0.04 | 0.18 | | 0.03 | 0.22 | | 0.02 | 0.10 | | c0.45 |
| v/c Ratio | 0.57 | 0.39 | 0.11 | 0.51 | 0.89 | 0.08 | 0.83 | 0.42 | 0.07 | 0.39 | 0.96 | 0.45 |
| Uniform Delay, d1 | 53.0 | 28.2 | 25.1 | 20.3 | 37.2 | 26.0 | 30.3 | 37.2 | 33.6 | 28.9 | 45.6 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 2.5 | 0.6 | 0.4 | 1.0 | 6.6 | 0.3 | 18.9 | 1.4 | 0.3 | 0.7 | 21.2 | 0.9 |
| Delay (s) | 55.5 | 28.8 | 25.5 | 21.3 | 43.9 | 26.3 | 49.3 | 38.6 | 34.0 | 29.5 | 66.8 | 0.9 |
| Level of Service | E | C | C | C | D | C | D | D | C | C | E | A |
| Approach Delay (s) | | 33.0 | | | 40.7 | | | 41.2 | | | 36.7 | |
| Approach LOS | | C | | | D | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | 38.1 | | | | | | | | | | D |
| HCM 2000 Volume to Capacity ratio | | 0.87 | | | | | | | | | | |
| Actuated Cycle Length (s) | | 123.5 | | | | | | | | | | 21.5 |
| Intersection Capacity Utilization | | 94.1% | | | | | | | | | | F |
| Analysis Period (min) | | 15 | | | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Unsignalized Intersection Capacity Analysis

3: Site Access & Eglinton Ave E

25/02/2020



| Movement | EBT | EBR | WBL | WBT | NBL | NBR | | |
|-----------------------------------|-------|------|-------|----------------------|------|------|------|------|
| Lane Configurations | | | | | | | | |
| Volume (veh/h) | 1094 | 14 | 1 | 2121 | 9 | 12 | | |
| Sign Control | Free | | | Free | Stop | | | |
| Grade | 0% | | | 0% | 0% | | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | | |
| Hourly flow rate (vph) | 1094 | 14 | 1 | 2121 | 9 | 12 | | |
| Pedestrians | | | | | | | | |
| Lane Width (m) | | | | | | | | |
| Walking Speed (m/s) | | | | | | | | |
| Percent Blockage | | | | | | | | |
| Right turn flare (veh) | | | | | | | | |
| Median type | TWLTL | | | None | | | | |
| Median storage veh | 2 | | | | | | | |
| Upstream signal (m) | 321 | | | 267 | | | | |
| pX, platoon unblocked | | | 0.96 | 0.74 | 0.96 | | | |
| vC, conflicting volume | | | 1108 | 1810 | 372 | | | |
| vC1, stage 1 conf vol | | | | 1101 | | | | |
| vC2, stage 2 conf vol | | | | 709 | | | | |
| vCu, unblocked vol | | | 961 | 475 | 193 | | | |
| tC, single (s) | | | 4.1 | 6.8 | 6.9 | | | |
| tC, 2 stage (s) | | | | 5.8 | | | | |
| tF (s) | | | 2.2 | 3.5 | 3.3 | | | |
| p0 queue free % | | | 100 | 97 | 98 | | | |
| cM capacity (veh/h) | | | 694 | 320 | 788 | | | |
| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 | NB 2 |
| Volume Total | 438 | 438 | 233 | 425 | 848 | 848 | 9 | 12 |
| Volume Left | 0 | 0 | 0 | 1 | 0 | 0 | 9 | 0 |
| Volume Right | 0 | 0 | 14 | 0 | 0 | 0 | 0 | 12 |
| cSH | 1700 | 1700 | 1700 | 694 | 1700 | 1700 | 320 | 788 |
| Volume to Capacity | 0.26 | 0.26 | 0.14 | 0.00 | 0.50 | 0.50 | 0.03 | 0.02 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 | 0.4 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.6 | 9.6 |
| Lane LOS | | | | A | | | C | A |
| Approach Delay (s) | 0.0 | | | 0.0 | | | 12.6 | |
| Approach LOS | | | | | | | B | |
| Intersection Summary | | | | | | | | |
| Average Delay | | | 0.1 | | | | | |
| Intersection Capacity Utilization | | | 51.7% | ICU Level of Service | | | A | |
| Analysis Period (min) | | | 15 | | | | | |

Appendix B3

2023 Total Condition

Queues

1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020

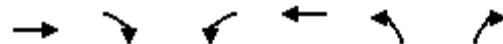


| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 2679 | 604 | 104 | 553 |
| v/c Ratio | 0.90 | 0.17 | 0.23 | 0.36 |
| Control Delay | 14.7 | 4.3 | 47.9 | 0.7 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 14.7 | 4.3 | 47.9 | 0.7 |
| Queue Length 50th (m) | 196.9 | 13.2 | 12.0 | 0.0 |
| Queue Length 95th (m) | 243.3 | 16.9 | 20.8 | 0.0 |
| Internal Link Dist (m) | 315.3 | 297.1 | 382.4 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 2964 | 3492 | 457 | 1524 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.90 | 0.17 | 0.23 | 0.36 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020



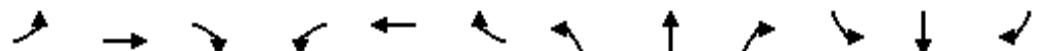
| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|-------|------|------|---------------------------|-------|-------|
| Lane Configurations | ↑↑ | | | ↑↑↑ | ↖↖ | ↗ |
| Volume (vph) | 2679 | 0 | 0 | 604 | 104 | 553 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 1.5 | | | 6.5 | 7.0 | 4.0 |
| Lane Util. Factor | *1.00 | | | 0.91 | 0.97 | 1.00 |
| Fr _t | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3725 | | | 4631 | 3433 | 1524 |
| Flt Permitted | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3725 | | | 4631 | 3433 | 1524 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 2679 | 0 | 0 | 604 | 104 | 553 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 2679 | 0 | 0 | 604 | 104 | 553 |
| Heavy Vehicles (%) | 2% | 0% | 0% | 12% | 2% | 6% |
| Turn Type | NA | | | NA | Perm | Free |
| Protected Phases | 4 | | | 8 | | |
| Permitted Phases | | | | 2 | Free | |
| Actuated Green, G (s) | 90.5 | | | 90.5 | 16.0 | 120.0 |
| Effective Green, g (s) | 95.5 | | | 90.5 | 16.0 | 120.0 |
| Actuated g/C Ratio | 0.80 | | | 0.75 | 0.13 | 1.00 |
| Clearance Time (s) | 6.5 | | | 6.5 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 2964 | | | 3492 | 457 | 1524 |
| v/s Ratio Prot | c0.72 | | | 0.13 | | |
| v/s Ratio Perm | | | | 0.03 | c0.36 | |
| v/c Ratio | 0.90 | | | 0.17 | 0.23 | 0.36 |
| Uniform Delay, d1 | 8.9 | | | 4.2 | 46.5 | 0.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 4.4 | | | 0.0 | 1.2 | 0.7 |
| Delay (s) | 13.3 | | | 4.2 | 47.6 | 0.7 |
| Level of Service | B | | | A | D | A |
| Approach Delay (s) | 13.3 | | | 4.2 | 8.1 | |
| Approach LOS | B | | | A | A | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | 11.0 | | | HCM 2000 Level of Service | B | |
| HCM 2000 Volume to Capacity ratio | 0.88 | | | | | |
| Actuated Cycle Length (s) | 120.0 | | | Sum of lost time (s) | 13.5 | |
| Intersection Capacity Utilization | 86.6% | | | ICU Level of Service | E | |
| Analysis Period (min) | 15 | | | | | |

c = Critical Lane Group

Queues

2: Tomken Rd & Eglinton Ave E

25/02/2020



| Lane Group | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|--------|-------|-------|-------|-------|-------|-------|------|-------|-------|-------|
| Lane Group Flow (vph) | 526 | 1912 | 124 | 51 | 467 | 189 | 117 | 592 | 139 | 138 | 248 | 182 |
| V/c Ratio | 0.84 | 0.87 | 0.19 | 0.32 | 0.37 | 0.35 | 0.25 | 0.62 | 0.29 | 0.47 | 0.26 | 0.14 |
| Control Delay | 61.3 | 37.8 | 4.8 | 22.3 | 37.8 | 7.0 | 23.9 | 43.7 | 9.4 | 28.3 | 36.3 | 0.2 |
| 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 | 61.3 | 37.8 | 4.8 | 22.3 | 37.8 | 7.0 | 23.9 | 43.7 | 9.4 | 28.3 | 36.3 | 0.2 |
| Queue Length 50th (m) | 66.4 | 164.1 | 0.2 | 6.1 | 36.0 | 0.0 | 18.3 | 70.3 | 2.1 | 21.9 | 26.0 | 0.0 |
| Queue Length 95th (m) | 86.6 | #194.6 | 12.5 | 12.7 | 47.4 | 18.4 | 31.4 | 93.6 | 19.1 | 36.7 | 39.5 | 0.0 |
| Internal Link Dist (m) | | 243.1 | | | 294.8 | | | 402.8 | | | 371.6 | |
| Turn Bay Length (m) | 125.0 | | 115.0 | 100.0 | | 105.0 | 125.0 | | 50.0 | 110.0 | | 150.0 |
| Base Capacity (vph) | 675 | 2199 | 646 | 265 | 1246 | 535 | 517 | 949 | 481 | 328 | 938 | 1306 |
| 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 | 0.78 | 0.87 | 0.19 | 0.19 | 0.37 | 0.35 | 0.23 | 0.62 | 0.29 | 0.42 | 0.26 | 0.14 |

Intersection Summary

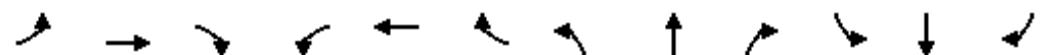
95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Tomken Rd & Eglinton Ave E

25/02/2020



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|------|-------|------|------|-------|-------|------|-------|------|-------|
| Lane Configurations | ↑↑ | ↑↑↑↑ | ↑ | ↑ | ↑↑↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ | ↑↑↑↑ | ↑ |
| Volume (vph) | 526 | 1912 | 124 | 51 | 467 | 189 | 117 | 592 | 139 | 138 | 248 | 182 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | 4.0 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.83 | 1.00 | 1.00 | 0.94 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.97 | 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) | 3335 | 5085 | 1333 | 1671 | 4550 | 1453 | 1699 | 3539 | 1446 | 1619 | 3374 | 1306 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.60 | 1.00 | 1.00 | 0.26 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3335 | 5085 | 1333 | 208 | 4550 | 1453 | 1070 | 3539 | 1446 | 449 | 3374 | 1306 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 526 | 1912 | 124 | 51 | 467 | 189 | 117 | 592 | 139 | 138 | 248 | 182 |
| RTOR Reduction (vph) | 0 | 0 | 70 | 0 | 0 | 137 | 0 | 0 | 94 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 526 | 1912 | 54 | 51 | 467 | 52 | 117 | 592 | 45 | 138 | 248 | 182 |
| Confl. Peds. (#/hr) | 23 | | 68 | 68 | | 23 | 32 | | 33 | 33 | | 32 |
| Heavy Vehicles (%) | 5% | 2% | 1% | 8% | 14% | 4% | 3% | 2% | 2% | 11% | 7% | 21% |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | 2 | 6 | | 6 | 4 | | 4 | 8 | | Free |
| Actuated Green, G (s) | 23.2 | 52.8 | 52.8 | 40.0 | 33.8 | 33.8 | 43.7 | 33.1 | 33.1 | 46.3 | 34.4 | 123.5 |
| Effective Green, g (s) | 23.2 | 52.8 | 52.8 | 40.0 | 33.8 | 33.8 | 43.7 | 33.1 | 33.1 | 46.3 | 34.4 | 123.5 |
| Actuated g/C Ratio | 0.19 | 0.43 | 0.43 | 0.32 | 0.27 | 0.27 | 0.35 | 0.27 | 0.27 | 0.37 | 0.28 | 1.00 |
| Clearance Time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | |
| 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 | |
| Lane Grp Cap (vph) | 626 | 2173 | 569 | 140 | 1245 | 397 | 432 | 948 | 387 | 281 | 939 | 1306 |
| v/s Ratio Prot | c0.16 | c0.38 | | 0.02 | 0.10 | | 0.02 | c0.17 | | c0.05 | 0.07 | |
| v/s Ratio Perm | | | 0.04 | 0.10 | | 0.04 | 0.07 | | 0.03 | 0.14 | | 0.14 |
| v/c Ratio | 0.84 | 0.88 | 0.09 | 0.36 | 0.38 | 0.13 | 0.27 | 0.62 | 0.12 | 0.49 | 0.26 | 0.14 |
| Uniform Delay, d1 | 48.4 | 32.4 | 21.1 | 30.8 | 36.3 | 33.8 | 27.7 | 39.7 | 34.2 | 27.3 | 34.7 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 9.9 | 5.5 | 0.3 | 1.6 | 0.9 | 0.7 | 0.3 | 3.1 | 0.6 | 1.4 | 0.7 | 0.2 |
| Delay (s) | 58.3 | 37.9 | 21.4 | 32.5 | 37.2 | 34.5 | 28.0 | 42.8 | 34.8 | 28.6 | 35.4 | 0.2 |
| Level of Service | E | D | C | C | D | C | C | D | C | C | D | A |
| Approach Delay (s) | | 41.3 | | | 36.1 | | | 39.5 | | | 22.5 | |
| Approach LOS | | D | | | D | | | D | | | C | |

Intersection Summary

| | | | |
|-----------------------------------|-------|---------------------------|------|
| HCM 2000 Control Delay | 37.9 | HCM 2000 Level of Service | D |
| HCM 2000 Volume to Capacity ratio | 0.77 | | |
| Actuated Cycle Length (s) | 123.5 | Sum of lost time (s) | 21.5 |
| Intersection Capacity Utilization | 82.2% | ICU Level of Service | E |
| Analysis Period (min) | 15 | | |
| c Critical Lane Group | | | |

HCM Unsignalized Intersection Capacity Analysis

3: Site Access & Eglinton Ave E

25/02/2020



| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
|-----------------------------------|------|-------|------|----------------------|------|------|------|
| Lane Configurations | ↑↑↓ | | | ↑↑↑ | | ↑ | |
| Volume (veh/h) | 3148 | 84 | 0 | 604 | 0 | 41 | |
| Sign Control | Free | | | Free | Stop | | |
| Grade | 0% | | | 0% | 0% | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly flow rate (vph) | 3148 | 84 | 0 | 604 | 0 | 41 | |
| Pedestrians | | | | | | | |
| Lane Width (m) | | | | | | | |
| Walking Speed (m/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | None | | | None | | | |
| Median storage (veh) | | | | | | | |
| Upstream signal (m) | 321 | | | 267 | | | |
| pX, platoon unblocked | | 0.50 | | 0.51 | 0.50 | | |
| vC, conflicting volume | | 3232 | | 3391 | 1091 | | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | | 1953 | | 2074 | 0 | | |
| 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 | 92 | | |
| cM capacity (veh/h) | | 151 | | 24 | 543 | | |
| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 |
| Volume Total | 1259 | 1259 | 714 | 201 | 201 | 201 | 41 |
| Volume Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 84 | 0 | 0 | 0 | 41 |
| cSH | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 543 |
| Volume to Capacity | 0.74 | 0.74 | 0.42 | 0.12 | 0.12 | 0.12 | 0.08 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.2 |
| Lane LOS | | | | | | | B |
| Approach Delay (s) | 0.0 | | | 0.0 | | | 12.2 |
| Approach LOS | | | | | | | B |
| Intersection Summary | | | | | | | |
| Average Delay | | | 0.1 | | | | |
| Intersection Capacity Utilization | | 72.7% | | ICU Level of Service | | | C |
| Analysis Period (min) | | 15 | | | | | |

Queues

1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020

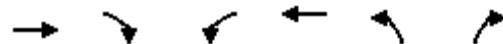


| Lane Group | EBT | WBT | NBL | NBR |
|------------------------|-------|-------|-------|------|
| Lane Group Flow (vph) | 958 | 2130 | 177 | 271 |
| v/c Ratio | 0.47 | 0.70 | 0.18 | 0.21 |
| Control Delay | 13.4 | 17.3 | 35.4 | 0.4 |
| Queue Delay | 0.0 | 0.0 | 0.0 | 0.0 |
| Total Delay | 13.4 | 17.3 | 35.4 | 0.4 |
| Queue Length 50th (m) | 63.9 | 123.1 | 17.2 | 0.0 |
| Queue Length 95th (m) | 61.5 | 108.8 | 29.7 | 0.0 |
| Internal Link Dist (m) | 315.3 | 297.1 | 382.4 | |
| Turn Bay Length (m) | | | | |
| Base Capacity (vph) | 2370 | 3504 | 961 | 1282 |
| Starvation Cap Reductn | 0 | 0 | 0 | 0 |
| Spillback Cap Reductn | 0 | 0 | 0 | 0 |
| Storage Cap Reductn | 0 | 0 | 0 | 0 |
| Reduced v/c Ratio | 0.40 | 0.61 | 0.18 | 0.21 |

Intersection Summary

HCM Signalized Intersection Capacity Analysis
1: Highway 403 NB Off-Ramp & Eglinton Ave E

25/02/2020



| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|-----------------------------------|------|------|-------|---------------------------|-------|-------|
| Lane Configurations | ↑↑ | | | ↑↑↑ | ↖↖ | ↗ |
| Volume (vph) | 958 | 0 | 0 | 2130 | 177 | 271 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 6.5 | | | 6.5 | 7.0 | 4.0 |
| Lane Util. Factor | 0.95 | | | 0.91 | 0.97 | 1.00 |
| Fr _t | 1.00 | | | 1.00 | 1.00 | 0.85 |
| Flt Protected | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (prot) | 3406 | | | 5036 | 3400 | 1282 |
| Flt Permitted | 1.00 | | | 1.00 | 0.95 | 1.00 |
| Satd. Flow (perm) | 3406 | | | 5036 | 3400 | 1282 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 958 | 0 | 0 | 2130 | 177 | 271 |
| RTOR Reduction (vph) | 0 | 0 | 0 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 958 | 0 | 0 | 2130 | 177 | 271 |
| Heavy Vehicles (%) | 6% | 0% | 0% | 3% | 3% | 26% |
| Turn Type | NA | | | NA | Perm | Free |
| Protected Phases | 4 | | | 8 | | |
| Permitted Phases | | | | 2 | Free | |
| Actuated Green, G (s) | 72.6 | | | 72.6 | 33.9 | 120.0 |
| Effective Green, g (s) | 72.6 | | | 72.6 | 33.9 | 120.0 |
| Actuated g/C Ratio | 0.60 | | | 0.60 | 0.28 | 1.00 |
| Clearance Time (s) | 6.5 | | | 6.5 | 7.0 | |
| Vehicle Extension (s) | 3.0 | | | 3.0 | 3.0 | |
| Lane Grp Cap (vph) | 2060 | | | 3046 | 960 | 1282 |
| v/s Ratio Prot | 0.28 | | | c0.42 | | |
| v/s Ratio Perm | | | | 0.05 | c0.21 | |
| v/c Ratio | 0.47 | | | 0.70 | 0.18 | 0.21 |
| Uniform Delay, d1 | 13.0 | | | 16.2 | 32.6 | 0.0 |
| Progression Factor | 1.00 | | | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 0.2 | | | 0.7 | 0.4 | 0.4 |
| Delay (s) | 13.2 | | | 16.9 | 33.0 | 0.4 |
| Level of Service | B | | | B | C | A |
| Approach Delay (s) | 13.2 | | | 16.9 | 13.3 | |
| Approach LOS | B | | | B | B | |
| Intersection Summary | | | | | | |
| HCM 2000 Control Delay | | | 15.5 | HCM 2000 Level of Service | | B |
| HCM 2000 Volume to Capacity ratio | | | 0.56 | | | |
| Actuated Cycle Length (s) | | | 120.0 | Sum of lost time (s) | | 13.5 |
| Intersection Capacity Utilization | | | 57.5% | ICU Level of Service | | B |
| Analysis Period (min) | | | 15 | | | |

c Critical Lane Group

Queues

2: Tomken Rd & Eglinton Ave E

25/02/2020



| Lane Group | EBL | EBT | EBC | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|------------------------|-------|-------|-------|-------|--------|-------|-------|-------|------|-------|--------|-------|
| Lane Group Flow (vph) | 202 | 793 | 166 | 203 | 1780 | 118 | 218 | 395 | 101 | 143 | 858 | 693 |
| V/c Ratio | 0.60 | 0.44 | 0.27 | 0.53 | 0.91 | 0.19 | 0.81 | 0.42 | 0.21 | 0.36 | 0.96 | 0.45 |
| Control Delay | 59.8 | 30.0 | 5.2 | 21.0 | 46.3 | 4.6 | 50.8 | 39.4 | 4.2 | 25.6 | 67.2 | 0.9 |
| 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 | 59.8 | 30.0 | 5.2 | 21.0 | 46.3 | 4.6 | 50.8 | 39.4 | 4.2 | 25.6 | 67.2 | 0.9 |
| Queue Length 50th (m) | 25.7 | 55.0 | 0.0 | 26.5 | 143.5 | 0.0 | 36.2 | 43.9 | 0.0 | 22.7 | 115.5 | 0.0 |
| Queue Length 95th (m) | 37.4 | 69.6 | 15.0 | 41.2 | #185.2 | 11.0 | #75.9 | 61.8 | 8.6 | 37.6 | #159.9 | 0.0 |
| Internal Link Dist (m) | | 243.1 | | | 294.8 | | | 402.8 | | | 371.6 | |
| Turn Bay Length (m) | 125.0 | | 115.0 | 100.0 | | 105.0 | 125.0 | | 50.0 | 110.0 | | 150.0 |
| Base Capacity (vph) | 632 | 1822 | 613 | 419 | 1958 | 606 | 282 | 941 | 482 | 437 | 897 | 1550 |
| 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 | 0.32 | 0.44 | 0.27 | 0.48 | 0.91 | 0.19 | 0.77 | 0.42 | 0.21 | 0.33 | 0.96 | 0.45 |

Intersection Summary

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

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Tomken Rd & Eglinton Ave E

25/02/2020

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|-----------------------------------|-------|------|------|-------|-------|------|-------|------|------|-------|-------|-------|
| Lane Configurations | ↑↑ | ↑↑↑ | ↑ | ↑ | ↑↑↑ | ↑ | ↑ | ↑↑ | ↑ | ↑ | ↑↑ | ↑ |
| Volume (vph) | 202 | 793 | 166 | 203 | 1780 | 118 | 218 | 395 | 101 | 143 | 858 | 693 |
| Ideal Flow (vphpl) | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 | 1900 |
| Total Lost time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | 4.0 |
| Lane Util. Factor | 0.97 | 0.91 | 1.00 | 1.00 | *1.00 | 1.00 | 1.00 | 0.95 | 1.00 | 1.00 | 0.95 | 1.00 |
| Frpb, ped/bikes | 1.00 | 1.00 | 0.85 | 1.00 | 1.00 | 0.96 | 1.00 | 1.00 | 0.91 | 1.00 | 1.00 | 0.98 |
| Flpb, ped/bikes | 1.00 | 1.00 | 1.00 | 0.99 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 0.98 | 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) | 3127 | 4848 | 1355 | 1769 | 5534 | 1474 | 1787 | 3505 | 1449 | 1669 | 3574 | 1550 |
| Flt Permitted | 0.95 | 1.00 | 1.00 | 0.30 | 1.00 | 1.00 | 0.12 | 1.00 | 1.00 | 0.48 | 1.00 | 1.00 |
| Satd. Flow (perm) | 3127 | 4848 | 1355 | 551 | 5534 | 1474 | 227 | 3505 | 1449 | 835 | 3574 | 1550 |
| Peak-hour factor, PHF | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Adj. Flow (vph) | 202 | 793 | 166 | 203 | 1780 | 118 | 218 | 395 | 101 | 143 | 858 | 693 |
| RTOR Reduction (vph) | 0 | 0 | 104 | 0 | 0 | 76 | 0 | 0 | 74 | 0 | 0 | 0 |
| Lane Group Flow (vph) | 202 | 793 | 62 | 203 | 1780 | 42 | 218 | 395 | 27 | 143 | 858 | 693 |
| Confl. Peds. (#/hr) | 13 | | 62 | 62 | | 13 | 31 | | 36 | 36 | | 31 |
| Heavy Vehicles (%) | 12% | 7% | 1% | 1% | 3% | 5% | 1% | 3% | 1% | 6% | 1% | 2% |
| Turn Type | Prot | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Perm | pm+pt | NA | Free |
| Protected Phases | 5 | 2 | | 1 | 6 | | 7 | 4 | | 3 | 8 | |
| Permitted Phases | | | 2 | 6 | | 6 | 4 | | 4 | 8 | | Free |
| Actuated Green, G (s) | 13.3 | 46.4 | 46.4 | 56.3 | 43.7 | 43.7 | 47.2 | 33.2 | 33.2 | 42.8 | 31.0 | 123.5 |
| Effective Green, g (s) | 13.3 | 46.4 | 46.4 | 56.3 | 43.7 | 43.7 | 47.2 | 33.2 | 33.2 | 42.8 | 31.0 | 123.5 |
| Actuated g/C Ratio | 0.11 | 0.38 | 0.38 | 0.46 | 0.35 | 0.35 | 0.38 | 0.27 | 0.27 | 0.35 | 0.25 | 1.00 |
| Clearance Time (s) | 5.0 | 6.5 | 6.5 | 3.0 | 6.5 | 6.5 | 3.0 | 7.0 | 7.0 | 3.0 | 7.0 | |
| 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 | |
| Lane Grp Cap (vph) | 336 | 1821 | 509 | 375 | 1958 | 521 | 263 | 942 | 389 | 369 | 897 | 1550 |
| v/s Ratio Prot | c0.06 | 0.16 | | 0.06 | c0.32 | | c0.09 | 0.11 | | 0.04 | c0.24 | |
| v/s Ratio Perm | | | 0.05 | 0.19 | | 0.03 | 0.22 | | 0.02 | 0.10 | | c0.45 |
| v/c Ratio | 0.60 | 0.44 | 0.12 | 0.54 | 0.91 | 0.08 | 0.83 | 0.42 | 0.07 | 0.39 | 0.96 | 0.45 |
| Uniform Delay, d1 | 52.6 | 28.8 | 25.2 | 20.8 | 38.0 | 26.5 | 30.3 | 37.2 | 33.6 | 28.9 | 45.6 | 0.0 |
| Progression Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Incremental Delay, d2 | 3.0 | 0.8 | 0.5 | 1.6 | 7.7 | 0.3 | 18.9 | 1.4 | 0.3 | 0.7 | 21.2 | 0.9 |
| Delay (s) | 55.6 | 29.5 | 25.7 | 22.4 | 45.7 | 26.8 | 49.3 | 38.6 | 34.0 | 29.5 | 66.8 | 0.9 |
| Level of Service | E | C | C | C | D | C | D | D | C | C | E | A |
| Approach Delay (s) | | 33.5 | | | 42.4 | | | 41.2 | | | 36.7 | |
| Approach LOS | | C | | | D | | | D | | | D | |
| Intersection Summary | | | | | | | | | | | | |
| HCM 2000 Control Delay | | | | 38.7 | | | | | | | | D |
| HCM 2000 Volume to Capacity ratio | | | | 0.88 | | | | | | | | |
| Actuated Cycle Length (s) | | | | 123.5 | | | | | | | | 21.5 |
| Intersection Capacity Utilization | | | | 94.7% | | | | | | | | F |
| Analysis Period (min) | | | | 15 | | | | | | | | |
| c Critical Lane Group | | | | | | | | | | | | |

HCM Unsignalized Intersection Capacity Analysis

3: Site Access & Eglinton Ave E

25/02/2020



| Movement | EBT | EBR | WBL | WBT | NBL | NBR | |
|-----------------------------------|------|-------|------|----------------------|------|------|------|
| Lane Configurations | | | | | | | |
| Volume (veh/h) | 1108 | 121 | 0 | 2130 | 0 | 121 | |
| Sign Control | Free | | | Free | Stop | | |
| Grade | 0% | | | 0% | 0% | | |
| Peak Hour Factor | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | |
| Hourly flow rate (vph) | 1108 | 121 | 0 | 2130 | 0 | 121 | |
| Pedestrians | | | | | | | |
| Lane Width (m) | | | | | | | |
| Walking Speed (m/s) | | | | | | | |
| Percent Blockage | | | | | | | |
| Right turn flare (veh) | | | | | | | |
| Median type | None | | | None | | | |
| Median storage veh) | | | | | | | |
| Upstream signal (m) | 321 | | | 267 | | | |
| pX, platoon unblocked | | 0.94 | | 0.75 | 0.94 | | |
| vC, conflicting volume | | 1229 | | 1878 | 430 | | |
| vC1, stage 1 conf vol | | | | | | | |
| vC2, stage 2 conf vol | | | | | | | |
| vCu, unblocked vol | | 1008 | | 408 | 154 | | |
| 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 | 85 | | |
| cM capacity (veh/h) | | 651 | | 430 | 815 | | |
| Direction, Lane # | EB 1 | EB 2 | EB 3 | WB 1 | WB 2 | WB 3 | NB 1 |
| Volume Total | 443 | 443 | 343 | 710 | 710 | 710 | 121 |
| Volume Left | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Volume Right | 0 | 0 | 121 | 0 | 0 | 0 | 121 |
| cSH | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 815 |
| Volume to Capacity | 0.26 | 0.26 | 0.20 | 0.42 | 0.42 | 0.42 | 0.15 |
| Queue Length 95th (m) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 |
| Control Delay (s) | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 |
| Lane LOS | | | | | | | B |
| Approach Delay (s) | 0.0 | | | 0.0 | | | 10.2 |
| Approach LOS | | | | | | | B |
| Intersection Summary | | | | | | | |
| Average Delay | | | 0.4 | | | | |
| Intersection Capacity Utilization | | 44.5% | | ICU Level of Service | | | A |
| Analysis Period (min) | | 15 | | | | | |