

FEBRUARY 27, 2017

REFER TO FILE: 1286-4458

SENT BY EMAIL:

NBOUTIN@VALOURCAPITAL.COM

2487586 Ontario Inc.
3410 South Service Road, Suite G5
Burlington, ON L7N 3T2

Attention: Nicole Boutin

**RE: TRAFFIC OPINION LETTER
248 MARTIN STREET
TOWN OF MILTON**

Dear Nicole,

Pursuant to your request for a transportation analysis regarding the proposed residential development located at 248 Martin Street, in the Town of Milton, this Traffic Opinion Letter (TOL) has been composed to support the Zoning By-Law Amendment and Site Plan Applications.

This letter reviews the development plan from a transportation engineering perspective. The main aspects reviewed in this letter are:

- The existing traffic operations at the study intersection of Martin Street at Caves Court during the weekday a.m. and p.m. peak hours.
- The trips generated by the proposed development.
- The traffic operations at the study intersection when considering site generated traffic and background developments for a five year study horizon to 2022.
- Safety at the site access.

Correspondence between Nawfal Kammah (Crozier & Associates) and Michael Turco (Town of Milton) confirmed the scope of work used in this Traffic Opinion Letter and has been included in the attachments.

1.0 PROJECT PROPOSAL

Due to the skewed directions, Martin Street has been given a north-south alignment and Caves Court has been given an east-west alignment, to help provide clarity throughout the letter.



The subject property (248 Martin Street) is located on the west side of Martin Street, in the Town of Milton. The subject lands are categorized as a "Low Density Residential- RLD" zone by the Town of Milton Zoning By-Law 016-2014.

The subject lands currently contain a single-family detached house on the north-end of the property and an industrial development on the south and west ends. The subject property is bounded by residential developments to the north and south, green fields to the west and Martin Street to the east. The site location and surrounding area are illustrated in **Figure 1**.

The project proposal is for a townhouse development consisting of 19 dwelling units separated into four blocks. A total of 43 parking spaces are proposed on-site, including 38 resident parking spaces and five visitor parking spaces. The proposed development has a full-moves access to Martin Street, transforming the three-legged intersection of Martin Street at Caves Court into a four-legged intersection. Refer to **Figure 2** for the Site Plan prepared by Orchard Design Studio Inc. dated January, 2017.

2.0 EXISTING CONDITIONS

2.1 Boundary Road Network

Martin Street is a north-south roadway with a two-lane cross-section, one lane in each direction. Martin Street is under the jurisdiction of the Town of Milton and is defined as a collector roadway per the Town of Milton Official Plan Schedule F, with a posted speed limit of 50 km/h at the site frontage. Sidewalks are located on both sides of the roadway at the site frontage, separated from the roadway by a boulevard strip.

Caves Court is an east-west roadway with a two-lane cross-section, one lane in each direction. Caves Court is under the jurisdiction of the Town of Milton and is defined as a local roadway per the Town of Milton Official Plan Schedule F, with an assumed speed limit of 50 km/h at the site frontage. A sidewalk is located on the south side of the roadway near the site frontage, separated from the roadway by a boulevard strip.

The three-legged intersection of Martin Street at Caves Court is one-way stop-controlled. The northbound approach (Martin Street) is under free-flow conditions and consists of a shared through/right-turn lane. The southbound approach (Martin Street) is under free-flow conditions and consists of a shared through/left-turn lane. The westbound approach (Caves Court) is stop-controlled and consists of a shared left/right-turn lane.

2.2 Cycling Facilities

There are no cycling facilities currently located along Martin Street and Caves Court. However, the Town of Milton Trails and Cycling MasterPlan Update Map 3.2 proposes on-road signed routes along Martin Street, as well as on-road signed routes along Caves Court for a distance of approximately 100 metres from the intersection of Martin Street at Caves Court. Relevant maps have been attached to this letter.

2.3 Public Transit

There are no public transit routes servicing the immediate surroundings of the proposed development. The closest Milton Transit bus routes are Route 1A/1B – Industrial, which travels along Steeles Avenue West

approximately 520 metres north of the proposed development, as well as Route 2 – Main, which travels along Millside Drive approximately 550 metres south of the proposed development. Relevant transit maps have been attached to this letter.

2.4 Traffic Data

Turning Movement counts at the intersection Martin Street at Caves Court were completed by Ontario Traffic Inc. on Wednesday December 14th, 2016, between 7 a.m. and 10 a.m. The peak hours of the turning movement counts occurred between 7:30 a.m. and 8:30 a.m.

The turning movement counts regarding the weekday p.m. peak hour were taken from the *Traffic Opinion Letter* prepared by Crozier & Associates dated January 30th, 2015. The counts were completed by Ontario Traffic Inc. on Friday January 22nd, 2015, between 4 p.m. and 6 p.m. The peak hours of the turning movement counts occurred between 4:30 p.m. and 5:30 p.m. These counts were used for the weekday p.m. peak hour because, at the time of the counts, the Martin Street Public School was not closed yet. The weekday p.m. peak hour of the elementary school is between 3:15 p.m. and 4:15 p.m. and does not match the weekday p.m. traffic peak hour. Therefore, using the 2015 weekday p.m. counts considers the trips generated by the school prior to its closure and will allow for a more precise analysis when considering the additional trips generated by the school's expansion as local background development.

Summary of the traffic data has been attached to this letter.

2.5 Traffic Modelling

The assessment of intersections is based on the method outlined in the "Highway Capacity Manual, 2010" using Synchro 8 modeling software. Intersections are assessed using a Level of Service metric, with ranges of delay assigned a letter from "A" to "F". For stop-controlled intersections, a Level of Service "A" or "B" would typically be measured during off-peak hours when lesser traffic volumes are on the roadways. Levels of Service "C" through "F" would typically be measured in the commuter peak hours when greater vehicle volumes cause longer travel times. The Level of Service (LOS) definitions for signalized intersections are attached to this letter.

2.6 Intersection Operations

The 2016 existing traffic operations at the intersection of Martin Street at Caves Court were analyzed on the basis of the traffic volumes recorded. The 2015 weekday p.m. traffic volumes were grown using an industry standard of two percent applied to all turning movements. Detailed capacity analyses are attached to this Traffic Opinion Letter.

The operations of the critical intersection were analyzed on the basis of the traffic volumes illustrated in **Figure 3. Table 1** outlines the existing traffic Levels of Service.

Table 1: 2016 Existing Levels of Service

| Intersection | Control | Peak Hour | Level of Service (Approach) | Average Delay per Vehicle(s) | Max V/C Ratio (Approach) | V/C Ratio(s) > 0.85 (Approach) | 95 th %ile Queues > Storage Length |
|------------------------------|--------------|-----------|-----------------------------|------------------------------|--------------------------|--------------------------------|---|
| Martin Street at Caves Court | One-Way Stop | A.M. | C (WB) | 16.3 | 0.06 (WB) | None | None |
| | | P.M. | C (WB) | 18.3 | 0.06 (WB) | None | None |

Note: The Level of Service of a stop-controlled intersection is based on the delay of the critical minor approach.

As illustrated in **Table 1**, the intersection of Martin Street at Caves Court operates at a Level of Service “C” during the weekday a.m. and p.m. peak hours. The maximum average delay per vehicle is 18.3 seconds during the weekday p.m. peak hour, with a maximum volume-to-capacity ratio of 0.06 for the westbound movement. Significant reserve capacity is available for future traffic volume growth.

3.0 LOCAL BACKGROUND DEVELOPMENTS

In order to complete a conservative analysis, local background developments were included to assess the full impact of the proposed development on the boundary road network. The various local background developments that impact the intersection of Martin Street at Caves Court are detailed below.

3.1 Martin Street Public School Expansion

The Martin Street Public School, which is currently closed, is in the process of expanding its facilities to facilitate greater enrollment. The expansion consists of replacing the existing buildings by a larger two-storey structure containing a total of 35 classrooms, which is capable of accommodating 753 students and 60 staff members. The school previously held 322 students and 26 staff members. In order to include the traffic generated by the school and assess its impacts to the boundary road network, the *Revised Traffic Impact Assessment for the Proposed Expansion to the Martin Street Public School*, prepared by GHD dated June 22, 2016, was used.

According to Table 2 of the GHD report, the school expansion is expected to generate a total of 265 trips during the a.m. peak hour with 191 trips entering the site and 74 trips exiting the site. Due to the fact that the weekday p.m. peak hour of the elementary school does not correspond to the traffic peak hour, the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th edition, Code 520 “Elementary School” was used to determine the trips generated by the expansion during the weekday p.m. peak hour. The school expansion is expected to generate a total of 65 trips during the weekday p.m. peak hour with 32 trips entering the site and 33 trips exiting the site. Figure 5 of the GHD report was used to determine the distribution and assignment of the trips generated by the school expansion to the boundary road network. Additionally, considering that at the time of the original GHD report the school was still open, Figure 2 of the GHD report was used to determine the number of trips generated by the school and their assignment to the boundary road network prior to its closure for the weekday a.m. peak hour. As mentioned in Section 2.4, the existing weekday p.m. peak hour traffic counts used in this report already include the school traffic.

The impacts of the Martin Street Public School Expansion to the traffic at the intersection of Martin Street at Caves Court are illustrated in **Figure 4**.

3.2 405 Martin Street Redevelopment

The redevelopment of the 405 Martin Street commercial plaza consists of replacing the self-service car wash (293 square metres of space) by an office (581.8 square metres of space). In order to assess the impacts of the redevelopment to the boundary road network, the *405 Martin Street Traffic Impact Study*, prepared by IBI dated December, 2014, was used. At the present time, the self-service car wash is no longer functional and the office is not yet in place. Therefore, the IBI report was used to include the traffic generated from the office to the boundary road network.

According the Exhibit 3-5 of the IBI report, the office development will generate a total of ten trips during the weekday a.m. peak hour with nine trips entering the site and one trip exiting the site. During the weekday p.m. peak hour the office development is expected to generate ten trips, two entering the site and eight exiting the site. According to Exhibit 3-6, the office development will generate 16 fewer trips than the self-service car wash during the weekday a.m. peak hour and 19 fewer trips during the weekday p.m. peak hour. Therefore, in order to have a more conservative analysis, the trips generated by the self-service car wash were assigned to the boundary road network using Exhibit 3-4 of the IBI report.

The impacts of the 405 Martin Street Redevelopment to the traffic at the intersection of Martin Street at Caves Court are illustrated in **Figure 5**.

4.0 SITE GENERATED TRAFFIC AND TRIP DISTRIBUTION

Site generated traffic for the proposed development was calculated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, Land Use Category 230 "Residential Condominium/Townhouse". **Table 2** below summarizes the total amount of trips generated.

Table 2: Site Generated Trips

| Type of Use | Number of Dwellings | Peak Hour | Trips per Dwelling | In (%) | Out (%) | Total |
|--------------------------------------|---------------------|--------------|--------------------|---------|---------|-------|
| Townhouse/Condominium (Category 230) | 19 | Weekday A.M. | 0.44 | 2 (17%) | 7 (83%) | 9 |
| | | Weekday P.M. | 0.52 | 7 (67%) | 3 (33%) | 10 |

Vehicles entering and exiting the site were distributed based on existing travel patterns at the study intersection. The site trip distribution and trip assignment volumes are illustrated in **Figure 6 and 7**, respectively.

5.0 TOTAL TRAFFIC OPERATIONS

Traffic operations at the intersection of Martin Street at Caves Court/Site Access were assessed under future total traffic conditions. Existing traffic volumes were grown using an industry standard of two percent and a five year study horizon to 2022. The local background development traffic volumes and site generated traffic were then added to the grown traffic volumes to create the future total traffic volumes, illustrated in **Figure 8**. Detailed capacity analyses are attached to this Traffic Opinion Letter. **Table 3** outlines the future total traffic Levels of Service.

Table 3: 2022 Total Traffic Levels of Service

| Intersection | Control | Peak Hour | Level of Service (Approach) | Average Delay per Vehicle(s) | Max V/C Ratio (Approach) | V/C Ratio(s) > 0.85 (Approach) | 95 th %ile Queues > Storage Length |
|--|--------------|-----------|-----------------------------|------------------------------|--------------------------|--------------------------------|---|
| Martin Street at Caves Court/Site Access | Two-Way Stop | A.M. | E (WB) | 36.1 | 0.17 (WB) | None | None |
| | | P.M. | D (WB) | 28.5 | 0.12 (WB) | None | None |

Note: The Level of Service of a Stop-Controlled intersection is based on the delay associated with the critical minor approach.

As illustrated in **Table 3**, the intersection of Martin Street at Caves Street is projected to operate at a Level of Service “E” and “D” during the weekday a.m. and p.m. peak hours, respectively. A maximum average delay per vehicle of 36.1 seconds is projected during the weekday a.m. peak hour, an increase of 17.8 seconds compared to existing conditions. A maximum volume-to-capacity ratio of 0.17 is projected for the westbound movement during the weekday a.m. peak hour. During the weekday a.m. peak hour, the intersection is projected to operate at a Level of Service “E” rather than a Level of Service “D” due to 1.1 seconds of delay. These Levels of Service are a consequence of the high volume of through traffic along Martin Street. The site generates a total of nine and ten trips during the weekday a.m. and p.m. peak hours, respectively. Therefore, the site has a negligible impact on the Level of Service of the boundary road network.

6.0 SITE ACCESS GEOMETRICS

The proposed site access to Martin Street creates a fourth leg to the Martin Street at Caves Court intersection. A sight line review of the site access was undertaken using the Transportation Association of Canada’s Geometric Design Manual for Canadian Roads (TAC Manual). Minimum required turning sight distances were derived using a design speed of 60 km/h, corresponding to the posted 50 km/h speed limit on Martin Street. Figure 2.3.3.4a and Figure 2.3.3.4b of the TAC Manual are attached to this letter.

For Martin Street, the minimum Turning Sight Distance required is 127 metres as per Figure 2.3.3.4b of the TAC Manual. This represents the “sight distance for a passenger vehicle to turn left onto a two-lane roadway without being overtaken by a vehicle approaching from the right”. As Martin Street is a straight, flat, roadway, available sight distances exceed 127 metres. Therefore, no sightline issues exist. Additionally, no issues related with corner clearances, access conflicts, heavy truck movements and transit operational conflicts were identified.

7.0 CONCLUSION

Under 2016 existing traffic conditions, the intersection of Martin Street at Caves Court operates at a Level of Service “C” during the weekday a.m. and p.m. peak hours. The maximum average delay per vehicle is 18.3 seconds during the weekday p.m. peak hour, with a maximum volume-to-capacity ratio of 0.06 for the westbound movement.

The proposed development is projected to generate a total of nine trips during the weekday a.m. peak hour and ten trips during the weekday p.m. peak hour.

Under 2022 future total traffic conditions, the intersection of Martin Street at Caves Street is projected to operate at a Level of Service "E" and "D" during the weekday a.m. and p.m. peak hours, respectively. A maximum average delay per vehicle of 36.1 seconds is projected during the weekday a.m. peak hour, an increase of 17.8 seconds compared to existing conditions. A maximum volume-to-capacity ratio of 0.17 is projected for the westbound movement during the weekday a.m. peak hour. During the weekday a.m. peak hour, the intersection is projected to operate at a Level of Service "E" rather than a Level of Service "D" due to 1.1 seconds of delay. These Levels of Service are a consequence of the high volume of through traffic along Martin Street. The site generates a total of nine and ten trips during the weekday a.m. and p.m. peak hours, respectively. Therefore, the site has a negligible impact on the Level of Service of the boundary road network.

The proposed site access creates a fourth leg of the Martin Street at Caves Court intersection. No sightline issues are anticipated at the site access. Additionally, no issues related to corner clearances, access conflicts, heavy truck movements and transit operational conflicts were identified.

The Zoning By-Law Amendment and Site Plan Approval for the proposed development can be supported from a traffic operations perspective. We trust that this review satisfies any transportation concerns associated with this development. Please feel free to contact the undersigned for any further information required.

Respectfully submitted by,

C.F. CROZIER & ASSOCIATES INC.



Nawfal Kammah, B.Eng., E.I.T.
Transportation

C.F. CROZIER & ASSOCIATES INC.



R. Aaron Wignall
Senior Transportation Technologist

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ATTACHMENTS

Nawfal Kammah

From: Michael.Turco@milton.ca
Sent: Wednesday, December 07, 2016 9:08 AM
To: Nawfal Kammah
Cc: Aaron Wignall
Subject: RE: 248 Martin Street Development Terms of Reference (CFC#1286-4458)

Hello Nawfal,

A Traffic Brief as opposed to a full Transportation Impact Study is acceptable.

- Analysis will include the intersection of Martin Street at Caves Crescent. Acceptable
- To reflect the residential use of the site, the weekday AM and PM peak hours will be analyzed. Acceptable
- Trip distribution will be based on existing travel patterns. Acceptable
- Existing traffic volumes and total traffic volumes (which include existing volumes and site generated traffic) will be analyzed. Existing conditions and a 5-year post build-out future total horizon are to be analyzed. Please include the following other area developments in the future total volumes:
 - 405 Martin Street – TIS conducted by IBI Group in 2014 – Site plan is attached – 581.8 square metres of office space
 - Martin Street Junior Public School Expansion – TIS conducted by GHD in 2016 – Accommodates 35 classrooms, 753 students, & 60 staff members.
- The safety at the site access will be analyzed. As part of the access review, please ensure that the site access conforms to all TAC and OPSD 350.010 standards.

If you have any questions, feel free to contact me.

Regards,

Michael Turco, C.E.T., MITE
Transportation Planning Technologist
Engineering Services | Town of Milton
905-878-7252 ext. 2363 | michael.turco@milton.ca

From: Nawfal Kammah [mailto:nkammah@cfcrozier.ca]
Sent: Monday, December 05, 2016 1:16 PM
To: Michael Turco
Cc: Aaron Wignall
Subject: 248 Martin Street Development Terms of Reference (CFC#1286-4458)

Hi Michael,

We have been retained to put together a Traffic Impact Study for a development located at 248 Martin Street , in the Town of Milton. I have attached the latest site plan for your review.

The proposed residential development will have a relatively minor impact to the operations of the boundary road network and is estimated to generate 14 trips during the weekday AM Peak Hour trips and 16 trips during the weekday PM Peak Hour using the fitted curve of the ITE trip generation manual, Category 230 (Residential Condominium/Townhouse).

Due to the small amount of trips generated by the proposed development would the Town agree to a Traffic Opinion Letter (TOL) rather than a full Traffic Impact Study?

If a TOL is satisfactory, we would like your approval of the following steps in order to begin our analysis:

- Analysis will include the intersection of Martin Street at Caves Crescent.
- To reflect the residential use of the site, the weekday AM and PM peak hours will be analyzed.
- Trip distribution will be based on existing travel patterns.
- Existing traffic volumes and total traffic volumes (which include existing volumes and site generated traffic) will be analyzed.
- The safety at the site access will be analyzed.

I hope the above is acceptable. Should you have any questions or concerns please feel free to contact myself or my colleague Aaron Wignall copied on this email.

Thanks for your time,

| **NAWFAL KAMMAH E.I.T.** | C.F. CROZIER & ASSOCIATES

| 2800 High Point Drive, Suite 100 | Milton, ON L9T 6P4

| cfcrozier.ca | nkammah@cfcrozier.ca | tel 905 875 0026



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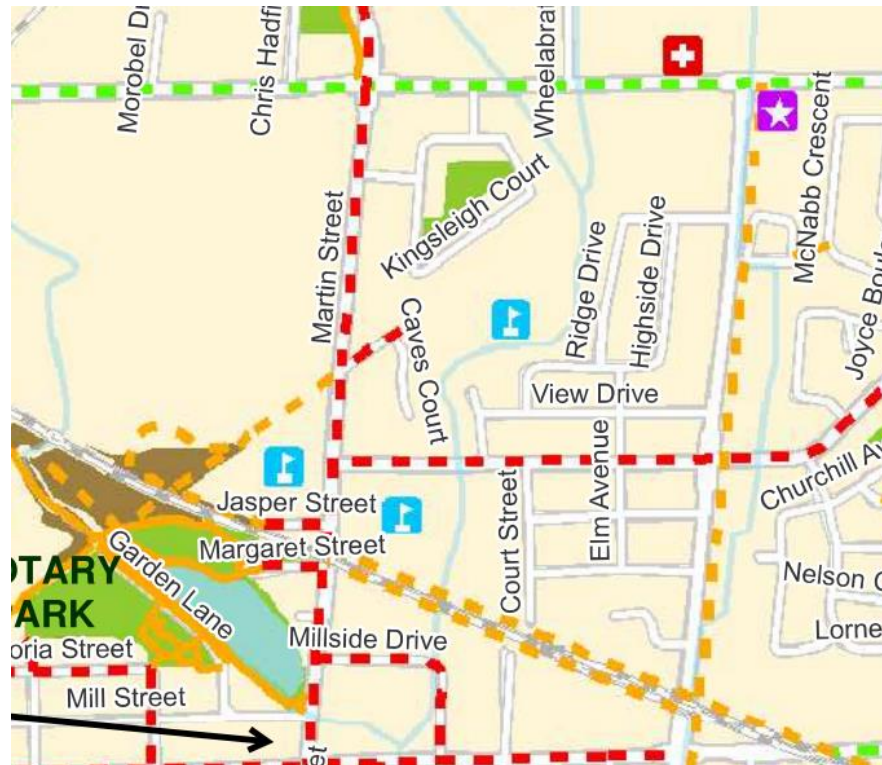
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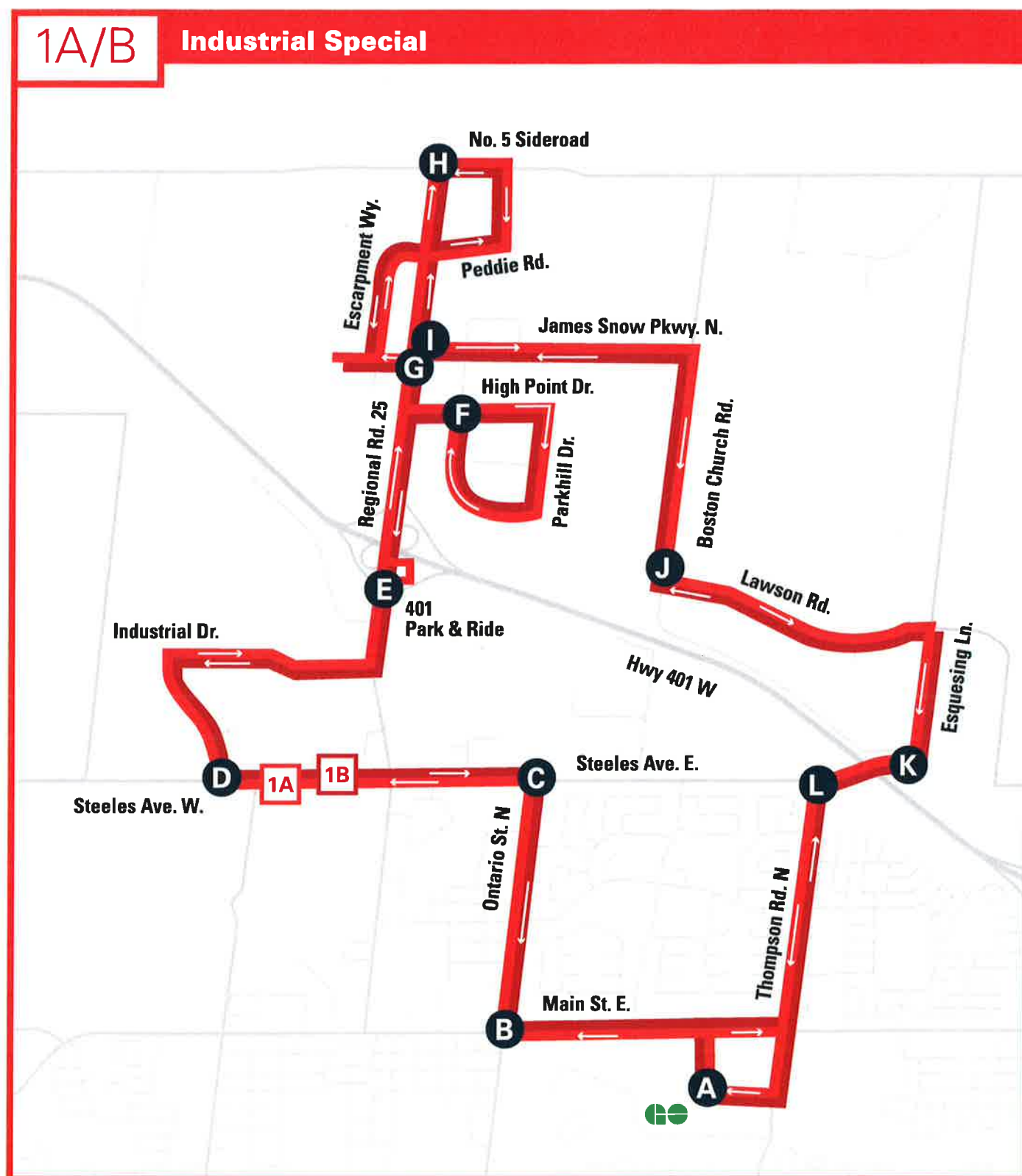
Cycling Map and Legend



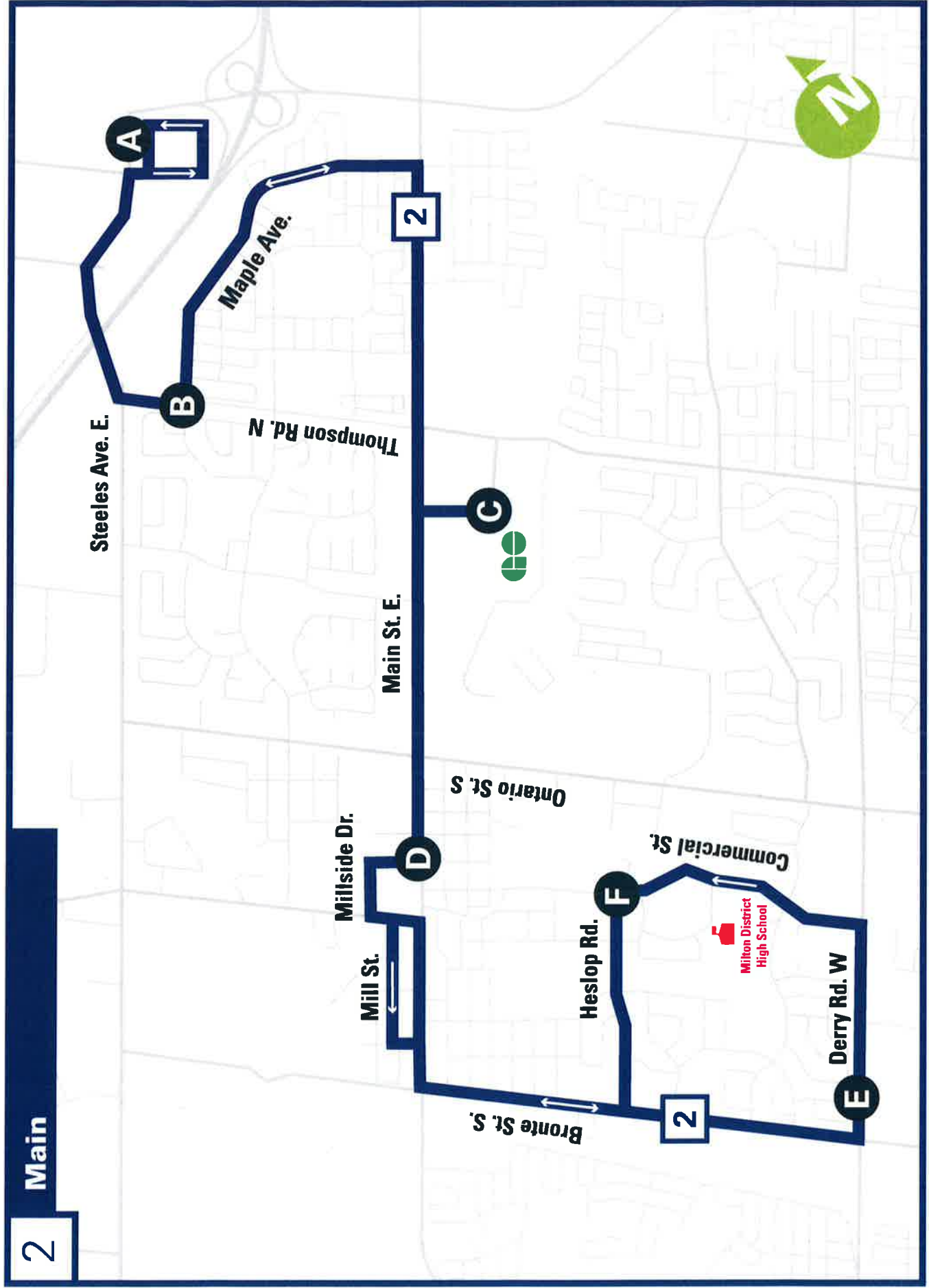
| Legend | |
|-----------------|--|
| Existing Routes | |
| | Existing Off-Road Trail |
| | Existing On-Road Bike Lane ¹ |
| | Existing On-Road Paved Shoulder |
| | Existing On-Road Signed Route |
| | Bruce Trail ² |
| | Conservation Halton Trail ² |
| Proposed Routes | |
| | Proposed Multi-Use Trail ³ |
| | Proposed On-Road Bike Lane |
| | Proposed On-Road Bike Lane with In-Boulevard Multi-Use Trail on both sides of the road |
| | Proposed On-Road Paved Shoulder |
| | Proposed On-Road Signed Route ⁴ |
| | Potential Staging Area |
| | Trail Bridge |
| | Potential Connection to Surrounding Municipality |
| | Conceptual Off-Road Route Alignment ⁵ |

1A/B

Industrial Special



[View Schedule](#)



View Schedule

Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 9:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Milton

Site #: 1501200001

Intersection: Martin St & Caves Ct

TFR File #: 7

Count date: 22-Jan-15

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Martin St runs N/S

North Leg Total: 641

North Entering: 331

North Peds: 0

Peds Cross: ∇

| | | | |
|--------|-----|---|-----|
| Heavys | 0 | 0 | 0 |
| Trucks | 5 | 0 | 5 |
| Cars | 324 | 2 | 326 |
| Totals | 329 | 2 | |

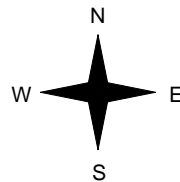
| | |
|--------|-----|
| Heavys | 0 |
| Trucks | 2 |
| Cars | 308 |
| Totals | 310 |

East Leg Total: 28

East Entering: 21

East Peds: 3

Peds Cross: ∇



| | | | | |
|--|------|--------|--------|--------|
| | Cars | Trucks | Heavys | Totals |
| | 8 | 0 | 0 | 8 |
| | 13 | 0 | 0 | 13 |
| | 21 | 0 | 0 | |

Caves Ct



| | | | | |
|--|------|--------|--------|--------|
| | Cars | Trucks | Heavys | Totals |
| | 7 | 0 | 0 | 7 |

| | | | | | |
|--------|-----|--------|-----|---|-----|
| Cars | 337 | Cars | 300 | 5 | 305 |
| Trucks | 5 | Trucks | 2 | 0 | 2 |
| Heavys | 0 | Heavys | 0 | 0 | 0 |
| Totals | 342 | Totals | 302 | 5 | |

Peds Cross: ∇

South Peds: 0

South Entering: 307

South Leg Total: 649

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 18:00:00

One Hour Peak

From: 16:30:00

To: 17:30:00

Municipality: Milton

Site #: 1501200001

Intersection: Martin St & Caves Ct

TFR File #: 7

Count date: 22-Jan-15

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Martin St runs N/S

North Leg Total: 949

North Entering: 575

North Peds: 1

Peds Cross: \bowtie

| | | | |
|--------|-----|---|-----|
| Heavys | 0 | 0 | 0 |
| Trucks | 1 | 0 | 1 |
| Cars | 571 | 3 | 574 |
| Totals | 572 | 3 | |

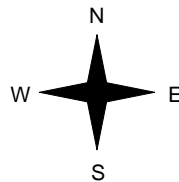
| | |
|--------|-----|
| Heavys | 0 |
| Trucks | 3 |
| Cars | 371 |
| Totals | 374 |

East Leg Total: 29

East Entering: 17

East Peds: 3

Peds Cross: \bowtie



| | | | | |
|--|------|--------|--------|--------|
| | Cars | Trucks | Heavys | Totals |
| | 3 | 0 | 0 | 3 |
| | 14 | 0 | 0 | 14 |
| | 17 | 0 | 0 | |

Caves Ct



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 12 | 0 | 0 | 12 |

Martin St

| | | | | | |
|--------|-----|--------|-----|---|-----|
| Cars | 585 | Cars | 368 | 9 | 377 |
| Trucks | 1 | Trucks | 3 | 0 | 3 |
| Heavys | 0 | Heavys | 0 | 0 | 0 |
| Totals | 586 | Totals | 371 | 9 | |

Peds Cross: \bowtie

South Peds: 0

South Entering: 380

South Leg Total: 966

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Milton
Site #: 1501200001
Intersection: Martin St & Caves Ct
TFR File #: 7
Count date: 22-Jan-15

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

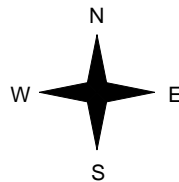
Major Road: Martin St runs N/S

North Leg Total: 3043
 North Entering: 1730
 North Peds: 3
 Peds Cross: \bowtie

| | | | |
|--------|------|----|------|
| Heavys | 0 | 0 | 0 |
| Trucks | 11 | 0 | 11 |
| Cars | 1707 | 12 | 1719 |
| Totals | 1718 | 12 | |

| | |
|--------|------|
| Heavys | 0 |
| Trucks | 15 |
| Cars | 1298 |
| Totals | 1313 |

East Leg Total: 81
 East Entering: 49
 East Peds: 14
 Peds Cross: \bowtie



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 17 | 0 | 0 | 17 |
| 32 | 0 | 0 | 32 |
| 49 | 0 | 0 | |

Caves Ct



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 32 | 0 | 0 | 32 |

Martin St

| | |
|--------|------|
| Cars | 1739 |
| Trucks | 11 |
| Heavys | 0 |
| Totals | 1750 |

| | | | |
|--------|------|----|------|
| Cars | 1281 | 20 | 1301 |
| Trucks | 15 | 0 | 15 |
| Heavys | 0 | 0 | 0 |
| Totals | 1296 | 20 | |

Peds Cross: \bowtie
 South Peds: 0
 South Entering: 1316
 South Leg Total: 3066

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Martin St & Caves Ct

Count Date: 22-Jan-15

Municipality: Milton

| North Approach Totals | | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|-----------------------|---------------------------------|------|-------|----------------|---------------|------------------------------------|-----------------------|---------------------------------|------|-------|----------------|---------------|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds | | Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds |
| | Left | Thru | Right | Grand Total | | | | Left | Thru | Right | Grand Total | |
| 7:00:00 | 0 | 1 | 0 | 1 | 0 | 7 | 7:00:00 | 0 | 6 | 0 | 6 | 0 |
| 8:00:00 | 2 | 312 | 0 | 314 | 0 | 607 | 8:00:00 | 0 | 291 | 2 | 293 | 0 |
| 9:00:00 | 1 | 331 | 0 | 332 | 0 | 613 | 9:00:00 | 0 | 278 | 3 | 281 | 0 |
| 16:00:00 | 0 | 5 | 0 | 5 | 0 | 8 | 16:00:00 | 0 | 3 | 0 | 3 | 0 |
| 17:00:00 | 6 | 535 | 0 | 541 | 2 | 897 | 17:00:00 | 0 | 346 | 10 | 356 | 0 |
| 18:00:00 | 3 | 534 | 0 | 537 | 1 | 909 | 18:00:00 | 0 | 367 | 5 | 372 | 0 |
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Calculated Values for Traffic Crossing Major Street

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|------------------|------|------|------|-------|-------|-------|-------|-------|
| Hours Ending: | 7:00 | 8:00 | 9:00 | 16:00 | 17:00 | 17:00 | 18:00 | 18:00 |
| Crossing Values: | 0 | 9 | 8 | 0 | 7 | 7 | 11 | 11 |

[illegible]

Count Date: 22-Jan-15 Site #: 1501200001

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Count Date: 22-Jan-15 Site #: 1501200001

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Count Date: 22-Jan-15 Site #: 1501200001

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Count Date: 22-Jan-15 Site #: 1501200001

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Ontario Traffic Inc

Morning Peak Diagram

Specified Period

From: 7:00:00

To: 10:00:00

One Hour Peak

From: 7:30:00

To: 8:30:00

Municipality: Milton

Site #: 1635200001

Intersection: Martin St & Caves Ct

TFR File #: 20

Count date: 14-Dec-16

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Martin St runs N/S

North Leg Total: 736

North Entering: 346

North Peds: 3

Peds Cross: \bowtie

| | | | | |
|--------|---|-----|---|-----|
| Heavys | 0 | 1 | 0 | 1 |
| Trucks | 0 | 3 | 1 | 4 |
| Cars | 0 | 339 | 2 | 341 |
| Totals | 0 | 343 | 3 | |



| | |
|--------|-----|
| Heavys | 0 |
| Trucks | 10 |
| Cars | 380 |
| Totals | 390 |

East Leg Total: 22

East Entering: 16

East Peds: 1

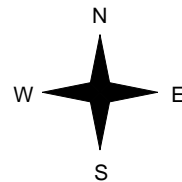
Peds Cross: \bowtie

| | | | |
|--------|--------|------|--------|
| Heavys | Trucks | Cars | Totals |
| 0 | 0 | 1 | 1 |



Private Driveway

| | | | |
|--------|--------|------|--------|
| Heavys | Trucks | Cars | Totals |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 5 | 0 | 0 | 5 |
| 0 | 0 | 0 | 0 |
| 11 | 0 | 0 | 11 |
| 16 | 0 | 0 | |

Caves Ct



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 5 | 1 | 0 | 6 |

Peds Cross: \bowtie

West Peds: 0

West Entering: 0

West Leg Total: 1

| | | | | | | |
|--------|-----|--------|---|-----|---|-----|
| Cars | 350 | Cars | 1 | 375 | 3 | 379 |
| Trucks | 3 | Trucks | 0 | 10 | 0 | 10 |
| Heavys | 1 | Heavys | 0 | 0 | 0 | 0 |
| Totals | 354 | Totals | 1 | 385 | 3 | |



Peds Cross: \bowtie

South Peds: 3

South Entering: 389

South Leg Total: 743

Comments

Ontario Traffic Inc

Afternoon Peak Diagram

Specified Period

From: 16:00:00

To: 19:00:00

One Hour Peak

From: 16:45:00

To: 17:45:00

Municipality: Milton

Site #: 1635200001

Intersection: Martin St & Caves Ct

TFR File #: 20

Count date: 14-Dec-16

Weather conditions:

Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Martin St runs N/S

North Leg Total: 1039

North Entering: 611

North Peds: 0

Peds Cross: \nlessgtr

| | | | | |
|--------|---|-----|---|-----|
| Heavys | 0 | 2 | 0 | 2 |
| Trucks | 0 | 0 | 0 | 0 |
| Cars | 0 | 603 | 6 | 609 |
| Totals | 0 | 605 | 6 | |



Heavys 0

Trucks 1

Cars 427

Totals 428

East Leg Total: 25

East Entering: 9

East Peds: 1

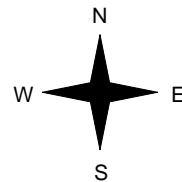
Peds Cross: \nlessgtr

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 0 | 0 | 0 |



Private Driveway

| Heavys | Trucks | Cars | Totals |
|--------|--------|------|--------|
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |



Martin St



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 4 | 0 | 0 | 4 |
| 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 5 |
| 9 | 0 | 0 | |

Caves Ct



| Cars | Trucks | Heavys | Totals |
|------|--------|--------|--------|
| 16 | 0 | 0 | 16 |

Peds Cross: \nlessgtr

West Peds: 0

West Entering: 0

West Leg Total: 0

| | |
|--------|-----|
| Cars | 608 |
| Trucks | 0 |
| Heavys | 2 |
| Totals | 610 |



| | | | | |
|--------|---|-----|----|-----|
| Cars | 0 | 423 | 10 | 433 |
| Trucks | 0 | 1 | 0 | 1 |
| Heavys | 0 | 0 | 0 | 0 |
| Totals | 0 | 424 | 10 | |

Peds Cross: \nlessgtr

South Peds: 4

South Entering: 434

South Leg Total: 1044

Comments

Ontario Traffic Inc

Total Count Diagram

Municipality: Milton
Site #: 1635200001
Intersection: Martin St & Caves Ct
TFR File #: 20
Count date: 14-Dec-16

Weather conditions:
Person(s) who counted:

**** Non-Signalized Intersection ****

Major Road: Martin St runs N/S

North Leg Total: 4674
 North Entering: 2511
 North Peds: 13
 Peds Cross: \times

| | | | | |
|--------|---|------|----|------|
| Heavys | 0 | 4 | 0 | 4 |
| Trucks | 0 | 25 | 1 | 26 |
| Cars | 0 | 2462 | 19 | 2481 |
| Totals | 0 | 2491 | 20 | |

| | |
|--------|------|
| Heavys | 2 |
| Trucks | 31 |
| Cars | 2130 |
| Totals | 2163 |

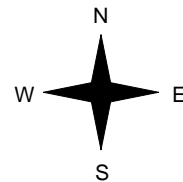
East Leg Total: 121
 East Entering: 71
 East Peds: 9
 Peds Cross: \times

| | | | |
|--------|--------|------|--------|
| Heavys | Trucks | Cars | Totals |
| 0 | 0 | 2 | 2 |



Private Driveway

| | | | |
|--------|--------|------|--------|
| Heavys | Trucks | Cars | Totals |
| 0 | 0 | 1 | 1 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 |
| 0 | 0 | 1 | |



Martin St



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 28 | 0 | 0 | 28 |
| 0 | 0 | 0 | 0 |
| 43 | 0 | 0 | 43 |
| 71 | 0 | 0 | |

Caves Ct



| | | | |
|------|--------|--------|--------|
| Cars | Trucks | Heavys | Totals |
| 49 | 1 | 0 | 50 |

Peds Cross: \times
 West Peds: 0
 West Entering: 1
 West Leg Total: 3

| | |
|--------|------|
| Cars | 2505 |
| Trucks | 25 |
| Heavys | 4 |
| Totals | 2534 |



| | | | | |
|--------|---|------|----|------|
| Cars | 2 | 2101 | 30 | 2133 |
| Trucks | 0 | 31 | 0 | 31 |
| Heavys | 0 | 2 | 0 | 2 |
| Totals | 2 | 2134 | 30 | |

Peds Cross: \times
 South Peds: 22
 South Entering: 2166
 South Leg Total: 4700

Comments

Ontario Traffic Inc

Traffic Count Summary

Intersection: Martin St & Caves Ct

Count Date: 14-Dec-16

Municipality: Milton

| North Approach Totals | | | | | | North/South Total Approaches | South Approach Totals | | | | | |
|-----------------------|---------------------------------|------|-------|----------------|---------------|------------------------------------|-----------------------|---------------------------------|------|-------|----------------|---------------|
| Hour Ending | Includes Cars, Trucks, & Heavys | | | | Total Peds | | 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 | 3 | 330 | 0 | 333 | 2 | 704 | 8:00:00 | 1 | 369 | 1 | 371 | 7 |
| 9:00:00 | 1 | 322 | 0 | 323 | 2 | 661 | 9:00:00 | 0 | 333 | 5 | 338 | 1 |
| 10:00:00 | 4 | 271 | 0 | 275 | 1 | 565 | 10:00:00 | 1 | 285 | 4 | 290 | 3 |
| 16:00:00 | 0 | 11 | 0 | 11 | 0 | 28 | 16:00:00 | 0 | 17 | 0 | 17 | 0 |
| 17:00:00 | 6 | 562 | 0 | 568 | 8 | 1012 | 17:00:00 | 0 | 432 | 12 | 444 | 4 |
| 18:00:00 | 2 | 571 | 0 | 573 | 0 | 987 | 18:00:00 | 0 | 411 | 3 | 414 | 4 |
| 19:00:00 | 4 | 424 | 0 | 428 | 0 | 720 | 19:00:00 | 0 | 287 | 5 | 292 | 3 |
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Calculated Values for Traffic Crossing Major Street

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|------------------|------|------|------|-------|-------|-------|-------|-------|
| Hours Ending: | 7:00 | 8:00 | 9:00 | 10:00 | 16:00 | 17:00 | 18:00 | 19:00 |
| Crossing Values: | 0 | 20 | 9 | 12 | 0 | 18 | 9 | 11 |

Ontario Traffic Inc

Count Date: 14-Dec-16 **Site #:** 1635200001

| 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 | 1 | 1 | 67 | 67 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30:00 | 1 | 0 | 142 | 75 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45:00 | 2 | 1 | 212 | 70 | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:00:00 | 2 | 0 | 322 | 110 | 0 | 0 | 1 | 1 | 7 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 |
| 8:15:00 | 3 | 1 | 400 | 78 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 |
| 8:30:00 | 3 | 0 | 481 | 81 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 |
| 8:45:00 | 3 | 0 | 553 | 72 | 0 | 0 | 1 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 9:00:00 | 3 | 0 | 638 | 85 | 0 | 0 | 1 | 0 | 13 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 1 |
| 9:15:00 | 4 | 1 | 718 | 80 | 0 | 0 | 1 | 0 | 18 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| 9:30:00 | 6 | 2 | 788 | 70 | 0 | 0 | 1 | 0 | 19 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| 9:45:00 | 7 | 1 | 850 | 62 | 0 | 0 | 1 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 1 |
| 10:00:00 | 7 | 0 | 901 | 51 | 0 | 0 | 1 | 0 | 21 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 10:01:07 | 7 | 0 | 908 | 7 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 16:00:00 | 7 | 0 | 912 | 4 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 16:15:00 | 8 | 1 | 1039 | 127 | 0 | 0 | 1 | 0 | 22 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 7 | 2 |
| 16:30:00 | 8 | 0 | 1191 | 152 | 0 | 0 | 1 | 0 | 23 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 6 |
| 16:45:00 | 9 | 1 | 1321 | 130 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 0 |
| 17:00:00 | 13 | 4 | 1471 | 150 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 0 |
| 17:15:00 | 13 | 0 | 1629 | 158 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 13 | 0 |
| 17:30:00 | 15 | 2 | 1780 | 151 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 17:45:00 | 15 | 0 | 1924 | 144 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:00:00 | 15 | 0 | 2040 | 116 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:15:00 | 17 | 2 | 2163 | 123 | 0 | 0 | 1 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:30:00 | 17 | 0 | 2275 | 112 | 0 | 0 | 1 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:45:00 | 18 | 1 | 2372 | 97 | 0 | 0 | 1 | 0 | 25 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 19:00:00 | 19 | 1 | 2462 | | | | | | | | | | | | | | | | | |

Count Date: 14-Dec-16 Site #: 1635200001

| 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 | 1 | 1 | 67 | 67 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30:00 | 1 | 0 | 142 | 75 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45:00 | 2 | 1 | 212 | 70 | 0 | 0 | 0 | 0 | 6 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 8:00:00 | 2 | 0 | 322 | 110 | 0 | 0 | 1 | 1 | 7 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | 1 |
| 8:15:00 | 3 | 1 | 400 | 78 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 2 | 0 |
| 8:30:00 | 3 | 0 | 481 | 81 | 0 | 0 | 1 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 1 |
| 8:45:00 | 3 | 0 | 553 | 72 | 0 | 0 | 1 | 0 | 10 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 3 | 0 |
| 9:00:00 | 3 | 0 | 638 | 85 | 0 | 0 | 1 | 0 | 13 | 3 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 1 |
| 9:15:00 | 4 | 1 | 718 | 80 | 0 | 0 | 1 | 0 | 18 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| 9:30:00 | 6 | 2 | 788 | 70 | 0 | 0 | 1 | 0 | 19 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| 9:45:00 | 7 | 1 | 850 | 62 | 0 | 0 | 1 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 1 |
| 10:00:00 | 7 | 0 | 901 | 51 | 0 | 0 | 1 | 0 | 21 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 10:01:07 | 7 | 0 | 908 | 7 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 16:00:00 | 7 | 0 | 912 | 4 | 0 | 0 | 1 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 5 | 0 |
| 16:15:00 | 8 | 1 | 1039 | 127 | 0 | 0 | 1 | 0 | 22 | 1 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 7 | 2 |
| 16:30:00 | 8 | 0 | 1191 | 152 | 0 | 0 | 1 | 0 | 23 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 6 |
| 16:45:00 | 9 | 1 | 1321 | 130 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 0 |
| 17:00:00 | 13 | 4 | 1471 | 150 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 0 |
| 17:15:00 | 13 | 0 | 1629 | 158 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 2 | 0 | 0 | 13 | 0 |
| 17:30:00 | 15 | 2 | 1780 | 151 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 17:45:00 | 15 | 0 | 1924 | 144 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:00:00 | 15 | 0 | 2040 | 116 | 0 | 0 | 1 | 0 | 23 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:15:00 | 17 | 2 | 2163 | 123 | 0 | 0 | 1 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:30:00 | 17 | 0 | 2275 | 112 | 0 | 0 | 1 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 18:45:00 | 18 | 1 | 2372 | 97 | 0 | 0 | 1 | 0 | 25 | 1 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 19:00:00 | 19 | 1 | 2462 | 90 | 0 | 0 | 1 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
| 19:00:20 | 19 | 0 | 2462 | 0 | 0 | 0 | 1 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 0 | 13 | 0 |
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[illegible]

Count Date: 14-Dec-16 Site #: 1635200001

| 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 | 3 | 3 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| 7:30:00 | 3 | 0 | 0 | 0 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 7:45:00 | 5 | 2 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:00:00 | 11 | 6 | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| 8:15:00 | 12 | 1 | 0 | 0 | 6 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| 8:30:00 | 14 | 2 | 0 | 0 | 8 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 8:45:00 | 15 | 1 | 0 | 0 | 10 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 9:00:00 | 17 | 2 | 0 | 0 | 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 9:15:00 | 21 | 4 | 0 | 0 | 12 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 9:30:00 | 21 | 0 | 0 | 0 | 15 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 9:45:00 | 23 | 2 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| 10:00:00 | 25 | 2 | 0 | 0 | 19 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 2 |
| 10:01:07 | 25 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 16:00:00 | 25 | 0 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 16:15:00 | 26 | 1 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 |
| 16:30:00 | 27 | 1 | 0 | 0 | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 2 |
| 16:45:00 | 28 | 1 | 0 | 0 | 20 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 1 |
| 17:00:00 | 30 | 2 | 0 | 0 | 23 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 0 |
| 17:15:00 | 31 | 1 | 0 | 0 | 24 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 |
| 17:30:00 | 32 | 1 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| 17:45:00 | 33 | 1 | 0 | 0 | 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| 18:00:00 | 35 | 2 | 0 | 0 | 25 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| 18:15:00 | 37 | 2 | 0 | 0 | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 |
| 18:30:00 | 38 | 1 | 0 | 0 | 26 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 1 |
| 18:45:00 | 39 | 1 | 0 | 0 | 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
| 19:00:00 | 43 | 4 | 0 | 0 | 28 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
| 19:00:20 | 43 | 0 | 0 | 0 | 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 | 0 |
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| Ontario Traffic Inc | | | | | | | | | | | | | | | | | | | | | |
|---|---------------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------------------|------|------|------|-------|------|-------------|------|--|
| Count Date: 14-Dec-16 Site #: 1635200001 | | | | | | | | | | | | | | | | | | | | | |
| 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 | 0 | 0 | 76 | 76 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 4 | |
| 7:30:00 | 0 | 0 | 169 | 93 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 | |
| 7:45:00 | 0 | 0 | 245 | 76 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 3 | |
| 8:00:00 | 1 | 1 | 361 | 116 | 1 | 0 | 0 | 0 | 7 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 | |
| 8:15:00 | 1 | 0 | 455 | 94 | 2 | 1 | 0 | 0 | 12 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 | |
| 8:30:00 | 1 | 0 | 544 | 89 | 4 | 2 | 0 | 0 | 13 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 | |
| 8:45:00 | 1 | 0 | 609 | 65 | 5 | 1 | 0 | 0 | 15 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 1 | |
| 9:00:00 | 1 | 0 | 685 | 76 | 6 | 1 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | |
| 9:15:00 | 2 | 1 | 764 | 79 | 8 | 2 | 0 | 0 | 21 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 | |
| 9:30:00 | 2 | 0 | 839 | 75 | 8 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 8 | 0 | |
| 9:45:00 | 2 | 0 | 905 | 66 | 10 | 2 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 1 | |
| 10:00:00 | 2 | 0 | 963 | 58 | 10 | 0 | 0 | 0 | 22 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 11 | 2 | |
| 10:01:07 | 2 | 0 | 969 | 6 | 10 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 11 | 0 | |
| 16:00:00 | 2 | 0 | 978 | 9 | 10 | 0 | 0 | 0 | 24 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 11 | 0 | |
| 16:15:00 | 2 | 0 | 1096 | 118 | 11 | 1 | 0 | 0 | 27 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 12 | 1 | |
| 16:30:00 | 2 | 0 | 1202 | 106 | 13 | 2 | 0 | 0 | 29 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 1 | |
| 16:45:00 | 2 | 0 | 1310 | 108 | 14 | 1 | 0 | 0 | 30 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 15 | 2 | |
| 17:00:00 | 2 | 0 | 1404 | 94 | 22 | 8 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 15 | 0 | |
| 17:15:00 | 2 | 0 | 1518 | 114 | 22 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 17 | 2 | |
| 17:30:00 | 2 | 0 | 1621 | 103 | 23 | 1 | 0 | 0 | 31 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 17 | 0 | |
| 17:45:00 | 2 | 0 | 1733 | 112 | 24 | 1 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 19 | 2 | |
| 18:00:00 | 2 | 0 | 1814 | 81 | 25 | 1 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 19 | 0 | |
| 18:15:00 | 2 | 0 | 1894 | 80 | 28 | 3 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 1 | |
| 18:30:00 | 2 | 0 | 1983 | 89 | 30 | 2 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 0 | |
| 18:45:00 | 2 | 0 | 2044 | 61 | 30 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 0 | |
| 19:00:00 | 2 | 0 | 2101 | 57 | 30 | 0 | 0 | | | | | | | | | | | | | | |

Count Date: 14-Dec-16 Site #: 1635200001

| 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 | 0 | 0 | 76 | 76 | 1 | 1 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 4 | 4 |
| 7:30:00 | 0 | 0 | 169 | 93 | 1 | 0 | 0 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 4 | 0 |
| 7:45:00 | 0 | 0 | 245 | 76 | 1 | 0 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 3 |
| 8:00:00 | 1 | 1 | 361 | 116 | 1 | 0 | 0 | 0 | 7 | 4 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 |
| 8:15:00 | 1 | 0 | 455 | 94 | 2 | 1 | 0 | 0 | 12 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 |
| 8:30:00 | 1 | 0 | 544 | 89 | 4 | 2 | 0 | 0 | 13 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 7 | 0 |
| 8:45:00 | 1 | 0 | 609 | 65 | 5 | 1 | 0 | 0 | 15 | 2 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 1 |
| 9:00:00 | 1 | 0 | 685 | 76 | 6 | 1 | 0 | 0 | 16 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 |
| 9:15:00 | 2 | 1 | 764 | 79 | 8 | 2 | 0 | 0 | 21 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 8 | 0 |
| 9:30:00 | 2 | 0 | 839 | 75 | 8 | 0 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 0 | 8 | 0 |
| 9:45:00 | 2 | 0 | 905 | 66 | 10 | 2 | 0 | 0 | 21 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 9 | 1 |
| 10:00:00 | 2 | 0 | 963 | 58 | 10 | 0 | 0 | 0 | 22 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 11 | 2 |
| 10:01:07 | 2 | 0 | 969 | 6 | 10 | 0 | 0 | 0 | 22 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 11 | 0 |
| 16:00:00 | 2 | 0 | 978 | 9 | 10 | 0 | 0 | 0 | 24 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 11 | 0 |
| 16:15:00 | 2 | 0 | 1096 | 118 | 11 | 1 | 0 | 0 | 27 | 3 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 12 | 1 |
| 16:30:00 | 2 | 0 | 1202 | 106 | 13 | 2 | 0 | 0 | 29 | 2 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 13 | 1 |
| 16:45:00 | 2 | 0 | 1310 | 108 | 14 | 1 | 0 | 0 | 30 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 15 | 2 |
| 17:00:00 | 2 | 0 | 1404 | 94 | 22 | 8 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 15 | 0 |
| 17:15:00 | 2 | 0 | 1518 | 114 | 22 | 0 | 0 | 0 | 30 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 17 | 2 |
| 17:30:00 | 2 | 0 | 1621 | 103 | 23 | 1 | 0 | 0 | 31 | 1 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 17 | 0 |
| 17:45:00 | 2 | 0 | 1733 | 112 | 24 | 1 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 19 | 2 |
| 18:00:00 | 2 | 0 | 1814 | 81 | 25 | 1 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 19 | 0 |
| 18:15:00 | 2 | 0 | 1894 | 80 | 28 | 3 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 1 |
| 18:30:00 | 2 | 0 | 1983 | 89 | 30 | 2 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 0 |
| 18:45:00 | 2 | 0 | 2044 | 61 | 30 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 20 | 0 |
| 19:00:00 | 2 | 0 | 2101 | 57 | 30 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 22 | 2 |
| 19:00:20 | 2 | 0 | 2101 | 0 | 30 | 0 | 0 | 0 | 31 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 22 | 0 |
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Ontario Traffic Inc

Count Date: 14-Dec-16 **Site #:** 1635200001

| 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 7:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:15:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:30:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 9:45:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 10:01:07 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:00:00 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:15:00 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:30:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16:45:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:00:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:15:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:30:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17:45:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18:00:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18:15:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18:30:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18:45:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19:00:00 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 19:00:20 | 1 | 0 | 0 | | | | | | | | | | | | | | | | | |

Count Date: 14-Dec-16 Site #: 1635200001

[illegible]

Level of Service Definitions

Two-Way Stop Controlled Intersections

| Level of Service | Control Delay per Vehicle (seconds) | Interpretation |
|------------------|-------------------------------------|---|
| A | ≤ 10 | EXCELLENT. Large and frequent gaps in traffic on the main roadway. Queuing on the minor street is rare. |
| B | > 10 and ≤ 15 | VERY GOOD. Many gaps exist in traffic on the main roadway. Queuing on the minor street is minimal. |
| C | > 15 and ≤ 25 | GOOD. Fewer gaps exist in traffic on the main roadway. Delay on minor approach becomes more noticeable. |
| D | > 25 and ≤ 35 | FAIR. Infrequent and shorter gaps in traffic on the main roadway. Queue lengths develop on the minor street. |
| E | > 35 and ≤ 50 | POOR. Very infrequent gaps in traffic on the main roadway. Queue lengths become noticeable. |
| F | > 50 | UNSATISFACTORY. Very few gaps in traffic on the main roadway. Excessive delay with significant queue lengths on the minor street. |

Adapted from Highway Capacity Manual 2000, Transportation Research Board

Intersection

Int Delay, s/veh 0.4

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|------|------|------|------|------|------|
| Vol, veh/h | 11 | 5 | 385 | 3 | 3 | 343 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 77 | 77 | 77 | 77 | 77 | 77 |
| Heavy Vehicles, % | 0 | 0 | 3 | 0 | 30 | 1 |
| Mvmt Flow | 14 | 6 | 500 | 4 | 4 | 445 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 955 | 502 | 0 |
| Stage 1 | 502 | - | - |
| Stage 2 | 453 | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.4 |
| Critical Hdwy Stg 1 | 5.4 | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.47 |
| Pot Cap-1 Maneuver | 289 | 573 | 931 |
| Stage 1 | 612 | - | - |
| Stage 2 | 645 | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 287 | 573 | 931 |
| Mov Cap-2 Maneuver | 287 | - | - |
| Stage 1 | 612 | - | - |
| Stage 2 | 641 | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|-----|
| HCM Control Delay, s | 16.3 | 0 | 0.1 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-------|
| Capacity (veh/h) | - | - | 340 | 931 |
| HCM Lane V/C Ratio | - | - | 0.061 | 0.004 |
| HCM Control Delay (s) | - | - | 16.3 | 8.9 |
| HCM Lane LOS | - | - | C | A |
| HCM 95th %tile Q(veh) | - | - | 0.2 | 0 |

Intersection

Int Delay, s/veh 0.3

| Movement | WBL | WBR | NBT | NBR | SBL | SBT |
|--------------------------|------|------|------|------|------|------|
| Vol, veh/h | 14 | 3 | 378 | 9 | 3 | 583 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | - | - | - | - |
| Veh in Median Storage, # | 0 | - | 0 | - | - | 0 |
| Grade, % | 0 | - | 0 | - | - | 0 |
| Peak Hour Factor | 94 | 94 | 94 | 94 | 94 | 94 |
| Heavy Vehicles, % | 0 | 0 | 0 | 0 | 0 | 0 |
| Mvmt Flow | 15 | 3 | 402 | 10 | 3 | 620 |

| Major/Minor | Minor1 | Major1 | Major2 |
|----------------------|--------|--------|--------|
| Conflicting Flow All | 1034 | 407 | 0 |
| Stage 1 | 407 | - | - |
| Stage 2 | 627 | - | - |
| Critical Hdwy | 6.4 | 6.2 | 4.1 |
| Critical Hdwy Stg 1 | 5.4 | - | - |
| Critical Hdwy Stg 2 | 5.4 | - | - |
| Follow-up Hdwy | 3.5 | 3.3 | 2.2 |
| Pot Cap-1 Maneuver | 259 | 648 | 1158 |
| Stage 1 | 676 | - | - |
| Stage 2 | 536 | - | - |
| Platoon blocked, % | - | - | - |
| Mov Cap-1 Maneuver | 258 | 648 | 1158 |
| Mov Cap-2 Maneuver | 258 | - | - |
| Stage 1 | 676 | - | - |
| Stage 2 | 534 | - | - |

| Approach | WB | NB | SB |
|----------------------|------|----|----|
| HCM Control Delay, s | 18.3 | 0 | 0 |
| HCM LOS | C | | |

| Minor Lane/Major Mvmt | NBT | NBRWBLn1 | SBL | SBT |
|-----------------------|-----|----------|-------|-----|
| Capacity (veh/h) | - | - 289 | 1158 | - |
| HCM Lane V/C Ratio | - | - 0.063 | 0.003 | - |
| HCM Control Delay (s) | - | - 18.3 | 8.1 | 0 |
| HCM Lane LOS | - | - C | A | A |
| HCM 95th %tile Q(veh) | - | - 0.2 | 0 | - |

Intersection

Int Delay, s/veh 0.7

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol, veh/h | 4 | 0 | 3 | 12 | 0 | 6 | 1 | 496 | 3 | 3 | 632 | 1 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 77 | 92 | 77 | 92 | 77 | 77 | 77 | 77 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 3 | 0 | 30 | 1 | 2 |
| Mvmt Flow | 4 | 0 | 3 | 16 | 0 | 8 | 1 | 644 | 4 | 4 | 821 | 1 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-----|--------|---|---|--------|---|---|
| Conflicting Flow All | 1481 | 1479 | 821 | 1479 | 1478 | 646 | 822 | 0 | 0 | 648 | 0 | 0 |
| Stage 1 | 829 | 829 | - | 648 | 648 | - | - | - | - | - | - | - |
| Stage 2 | 652 | 650 | - | 831 | 830 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.1 | 6.52 | 6.2 | 4.12 | - | - | 4.4 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.1 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.1 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.5 | 4.018 | 3.3 | 2.218 | - | - | 2.47 | - | - |
| Pot Cap-1 Maneuver | 103 | 126 | 374 | 105 | 126 | 475 | 807 | - | - | 818 | - | - |
| Stage 1 | 365 | 385 | - | 462 | 466 | - | - | - | - | - | - | - |
| Stage 2 | 457 | 465 | - | 367 | 385 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 100 | 125 | 374 | 103 | 125 | 475 | 807 | - | - | 818 | - | - |
| Mov Cap-2 Maneuver | 100 | 125 | - | 103 | 125 | - | - | - | - | - | - | - |
| Stage 1 | 364 | 382 | - | 461 | 465 | - | - | - | - | - | - | - |
| Stage 2 | 449 | 464 | - | 361 | 382 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|----|------|----|----|
| HCM Control Delay, s | 31 | 36.1 | 0 | 0 |
| HCM LOS | D | E | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 807 | - | - | 146 | 139 | 818 | - | - |
| HCM Lane V/C Ratio | 0.001 | - | - | 0.052 | 0.168 | 0.005 | - | - |
| HCM Control Delay (s) | 9.5 | 0 | - | 31 | 36.1 | 9.4 | 0 | - |
| HCM Lane LOS | A | A | - | D | E | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0.2 | 0.6 | 0 | - | - |

Intersection

Int Delay, s/veh 0.5

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| Vol, veh/h | 1 | 0 | 2 | 16 | 0 | 3 | 3 | 447 | 10 | 3 | 694 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Stop | Stop | Stop | Stop | Free | Free | Free | Free | Free | Free |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 94 | 92 | 94 | 92 | 94 | 94 | 94 | 94 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 2 |
| Mvmt Flow | 1 | 0 | 2 | 17 | 0 | 3 | 3 | 476 | 11 | 3 | 738 | 4 |

| Major/Minor | Minor2 | | | Minor1 | | | Major1 | | | Major2 | | |
|----------------------|--------|-------|-------|--------|-------|-----|--------|---|---|--------|---|---|
| Conflicting Flow All | 1236 | 1240 | 740 | 1235 | 1236 | 481 | 743 | 0 | 0 | 486 | 0 | 0 |
| Stage 1 | 747 | 747 | - | 487 | 487 | - | - | - | - | - | - | - |
| Stage 2 | 489 | 493 | - | 748 | 749 | - | - | - | - | - | - | - |
| Critical Hdwy | 7.12 | 6.52 | 6.22 | 7.1 | 6.52 | 6.2 | 4.12 | - | - | 4.1 | - | - |
| Critical Hdwy Stg 1 | 6.12 | 5.52 | - | 6.1 | 5.52 | - | - | - | - | - | - | - |
| Critical Hdwy Stg 2 | 6.12 | 5.52 | - | 6.1 | 5.52 | - | - | - | - | - | - | - |
| Follow-up Hdwy | 3.518 | 4.018 | 3.318 | 3.5 | 4.018 | 3.3 | 2.218 | - | - | 2.2 | - | - |
| Pot Cap-1 Maneuver | 153 | 175 | 417 | 155 | 176 | 589 | 864 | - | - | 1087 | - | - |
| Stage 1 | 405 | 420 | - | 566 | 550 | - | - | - | - | - | - | - |
| Stage 2 | 561 | 547 | - | 408 | 419 | - | - | - | - | - | - | - |
| Platoon blocked, % | | | | | | | | - | - | | - | - |
| Mov Cap-1 Maneuver | 151 | 173 | 417 | 153 | 174 | 589 | 864 | - | - | 1087 | - | - |
| Mov Cap-2 Maneuver | 151 | 173 | - | 153 | 174 | - | - | - | - | - | - | - |
| Stage 1 | 403 | 418 | - | 563 | 547 | - | - | - | - | - | - | - |
| Stage 2 | 555 | 544 | - | 404 | 417 | - | - | - | - | - | - | - |

| Approach | EB | WB | NB | SB |
|----------------------|------|------|-----|----|
| HCM Control Delay, s | 18.9 | 28.5 | 0.1 | 0 |
| HCM LOS | C | D | | |

| Minor Lane/Major Mvmt | NBL | NBT | NBR | EBLn1 | WBLn1 | SBL | SBT | SBR |
|-----------------------|-------|-----|-----|-------|-------|-------|-----|-----|
| Capacity (veh/h) | 864 | - | - | 263 | 173 | 1087 | - | - |
| HCM Lane V/C Ratio | 0.004 | - | - | 0.012 | 0.117 | 0.003 | - | - |
| HCM Control Delay (s) | 9.2 | 0 | - | 18.9 | 28.5 | 8.3 | 0 | - |
| HCM Lane LOS | A | A | - | C | D | A | A | - |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | 0.4 | 0 | - | - |

Figure 2.3.3.4a Sight Distance for Crossing Movements and Vehicles Turning Left across Passenger Vehicle approaching from the Left

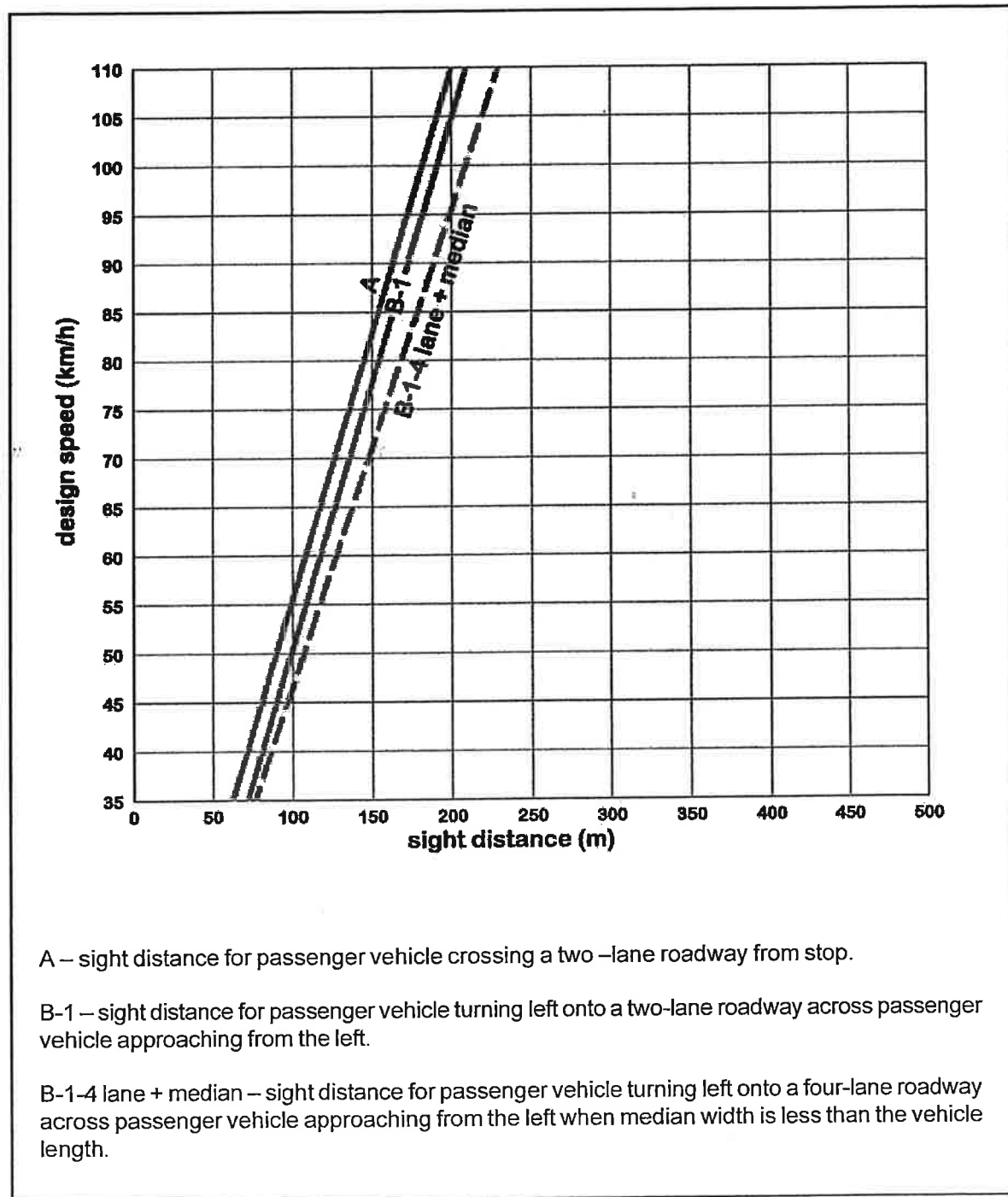
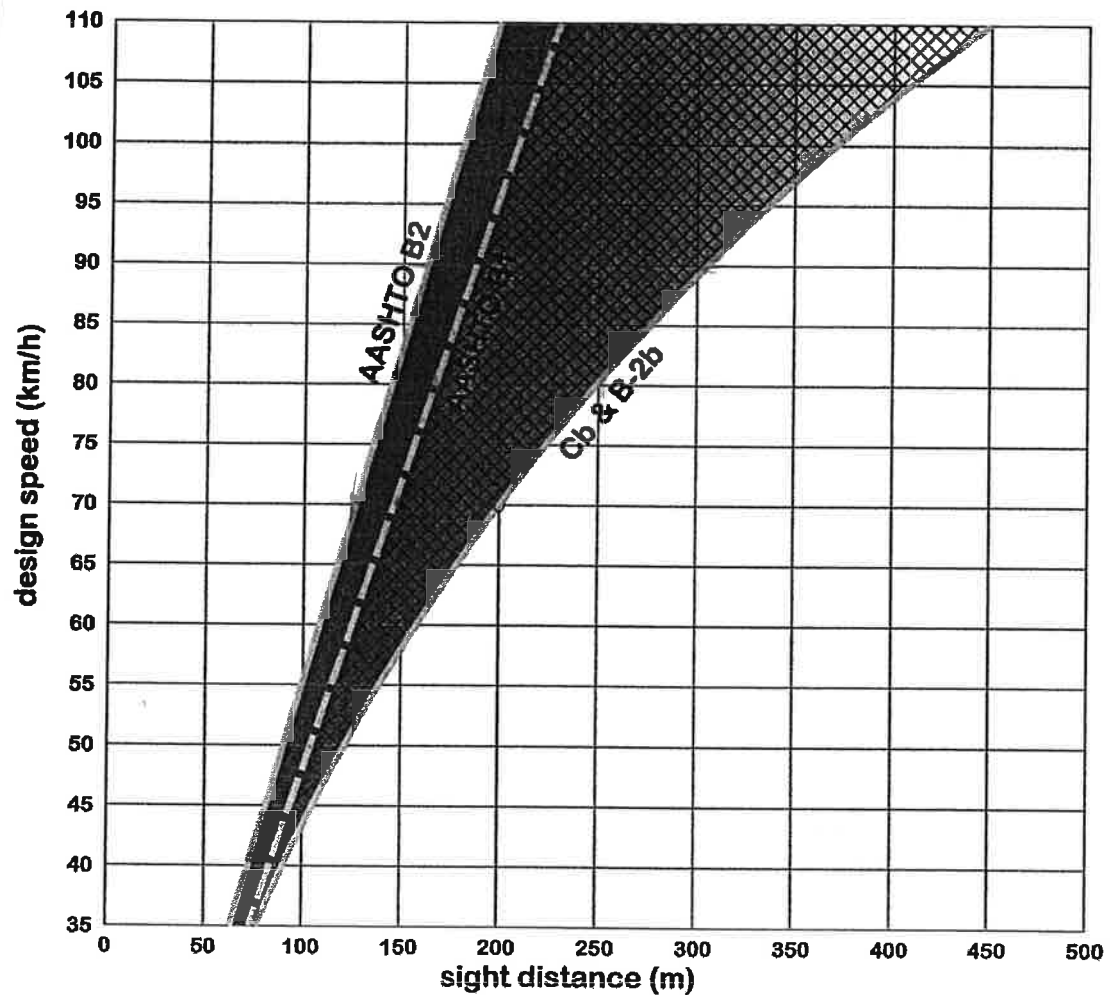


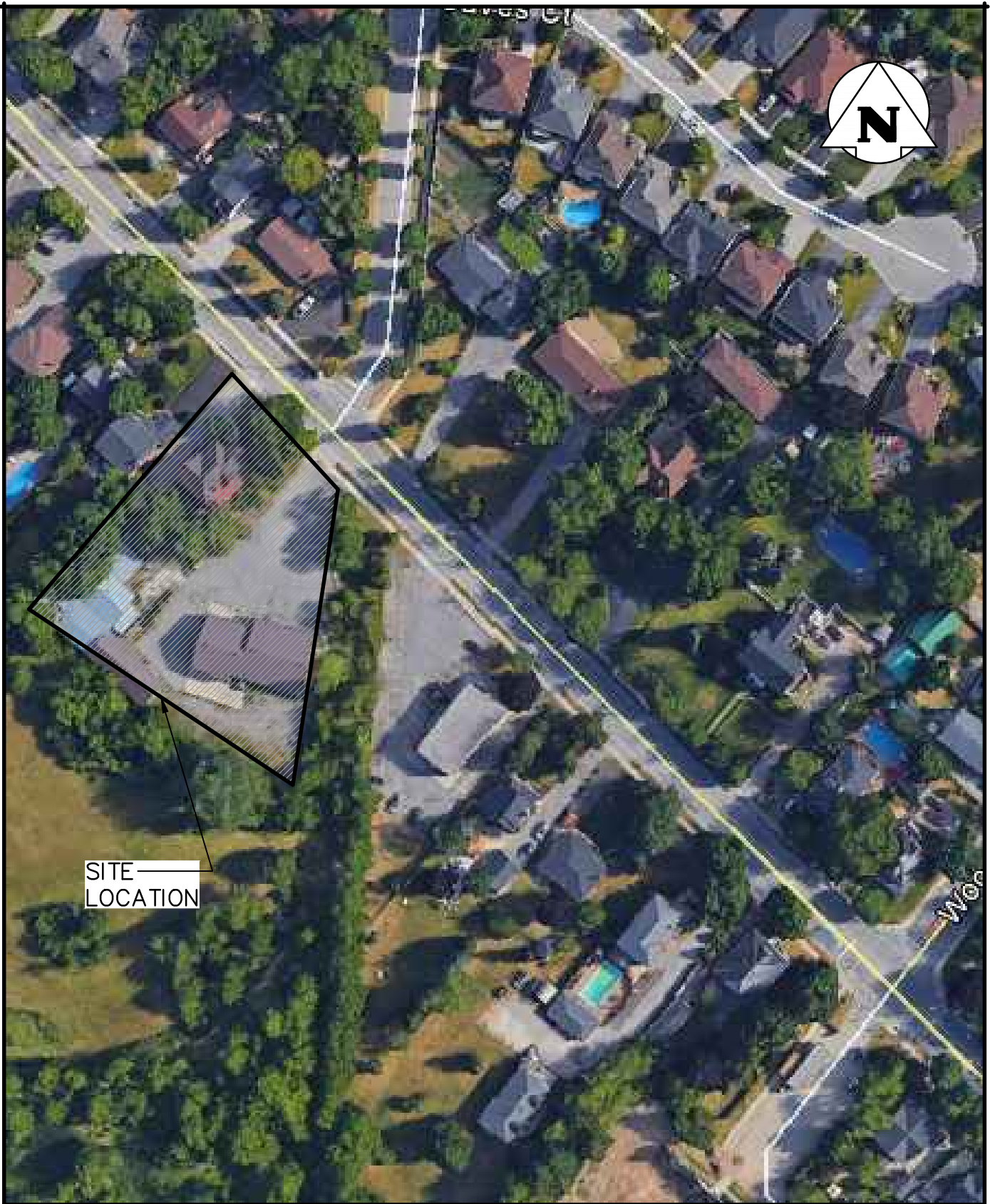
Figure 2.3.3.4b Sight Distance for Turning Movements with Vehicles approaching in the Intended Direction of Travel



Area bounded by AASHTO B1 and B-2b (crosshatched) – design domain for sight distance for passenger vehicle to turn left onto a two-lane roadway without being overtaken by a vehicle approaching from the right.

Area bounded by AASHTO B2 and Cb (shaded) – design domain for sight distance for passenger vehicle to turn right onto a two-lane roadway without being overtaken by a vehicle approaching from the left.

FIGURES



2487586 ONTARIO INC.
248 MARTIN STREET
TOWN OF MILTON

SITE LOCATION



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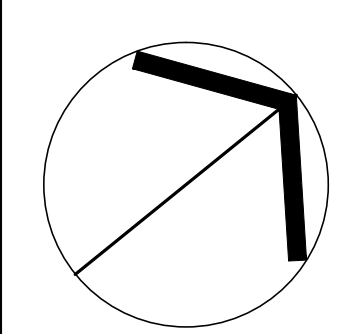
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|-------|--------|--------|--------|-------------|-----------|
| Drawn | N.K. | Design | N.K. | Project No. | 1286-4458 |
| Check | R.A.W. | Check | R.A.W. | Scale | N.T.S. |
| | | | | Dwg. | FIG. 01 |



| ZONING RLD TO RMD-1 (4 BLOCKS 19 UNITS) | | |
|---|---|---|
| REGULATION | REQUIRED | PROPOSED |
| LOT AREA | ----- | 4,191.57 sq.m./0.419 ha |
| LOT FRONTAGE (MINIMUM) | 30.0 m | 31.85 m |
| LOT DEPTH (MINIMUM) | 35.0 m | 70.06 m |
| FRONT YARD (MINIMUM) | 4.0 m | 9.94 m |
| *SIDE YARD (MINIMUM) | 6.0 m | * 2.65 m (Unit 19) |
| *REAR YARD (MINIMUM) | 7.5 m | * 5.01 m |
| BUILDING HEIGHT (MAXIMUM) | 12.5m | 11.0 m |
| LANDSCAPE OPEN SPACE (MIN.) | 30% | 2,013.86 sq.m (48.05%) |
| * PARKING SPACES (MINIMUM) | PRIVATE - 38 SPACES VISITOR (0.25 PER UNIT) ----- 5 SPACES TOTAL - 43 SPACES | 21 DRIVEWAY 17 GARAGE 5 VISITOR 43 TOTAL |

* MINOR VARIANCE REQUIRED

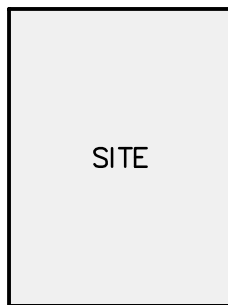
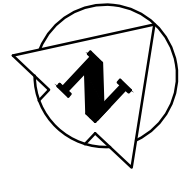
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| | |
|---------|---------------------|
| STATUS | |
| FOLDER | 250 MARTIN |
| FILE | 250 MARTIN SITE.dwg |
| SCALE | 1:200 |
| DWN BY | KSR |
| DATE | JANUARY 2017 |
| REVISED | |
| JOB No. | 10984 |

| | |
|---------|---|
| PROJECT | MARTIN STREET TOWNHOMES 250 MARTIN STREET MILTON ONTARIO |
| TITLE | SITE PLAN |

NOTE:

THIS FIGURE IS SCHEMATIC ONLY
AND IS NOT TO BE SCALED.



SITE ACCESS

343(583)
3(3)

5(3)
11(14)

CAVES COURT

(378)385
(9)3

MARTIN STREET

LEGEND:



SIGNAL CONTROL



STOP CONTROL



YIELD CONTROL



ROUND ABOUT

XX(YY) WEEKDAY AM(PM)
TRIP DISTRIBUTION

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248 MARTIN STREET
TOWN OF MILTON

2016 EXISTING CONDITIONS



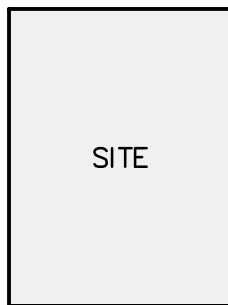
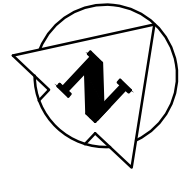
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| | | | | Dwg. | FIG. 03 |

NOTE:

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SITE

SITE ACCESS

↕ 243(32)

MARTIN STREET

↑ (17)60

CAVES COURT

LEGEND:



SIGNAL CONTROL



STOP CONTROL



YIELD CONTROL



ROUND ABOUT

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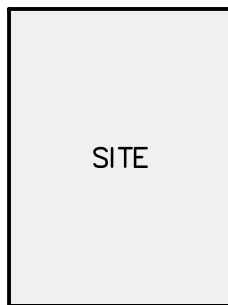
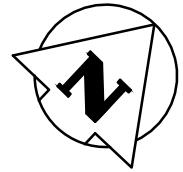
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MARTIN STREET PUBLIC SCHOOL EXPANSION
BACKGROUND DEVELOPMENT

| | | | | | |
|-------|--------|--------|--------|-------------|-----------|
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| | | | | Dwg. | FIG. 04 |

NOTE:

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SITE

SITE ACCESS






↕ 3(5)

MARTIN STREET

↑ (4)2

CAVES COURT

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-  SIGNAL CONTROL
-  STOP CONTROL
-  YIELD CONTROL
-  ROUND ABOUT
-  WEEKDAY AM(PM)
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TOWN OF MILTON

405 MARTIN STREET
BACKGROUND DEVELOPMENT



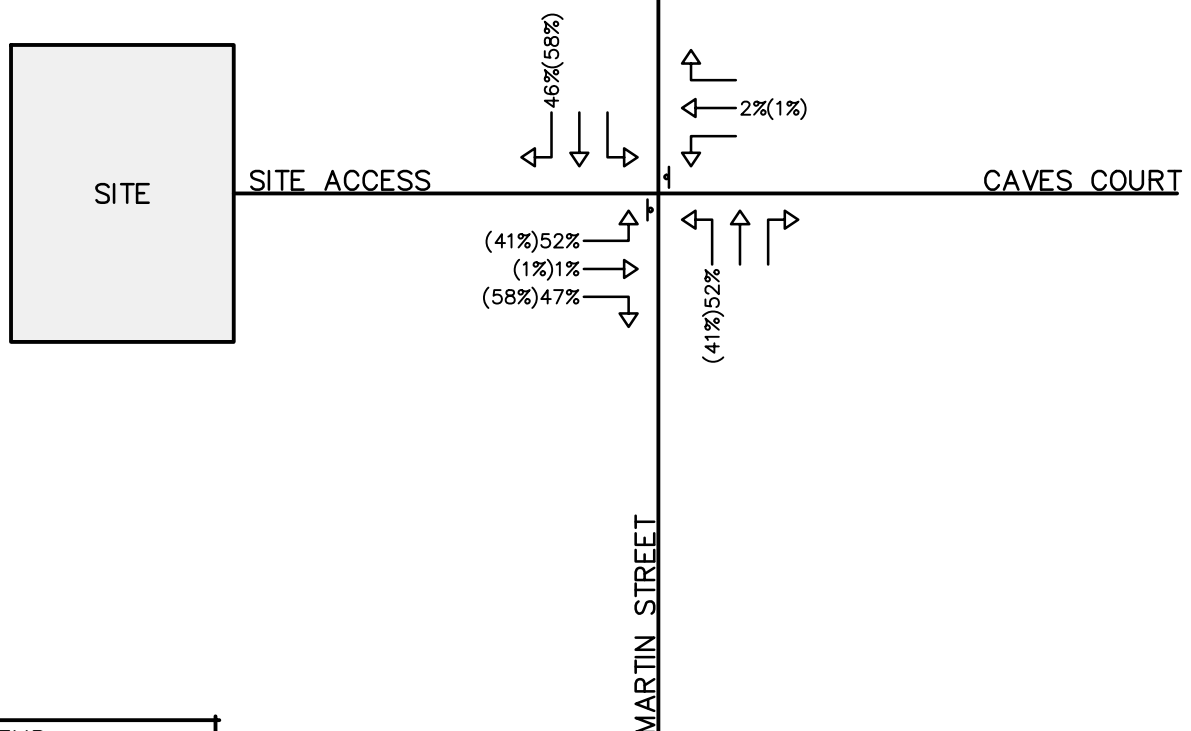
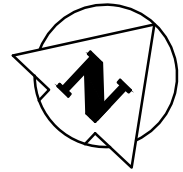
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| | | | | Dwg. | FIG. 05 |

NOTE:

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**LEGEND:**

SIGNAL CONTROL



STOP CONTROL



YIELD CONTROL



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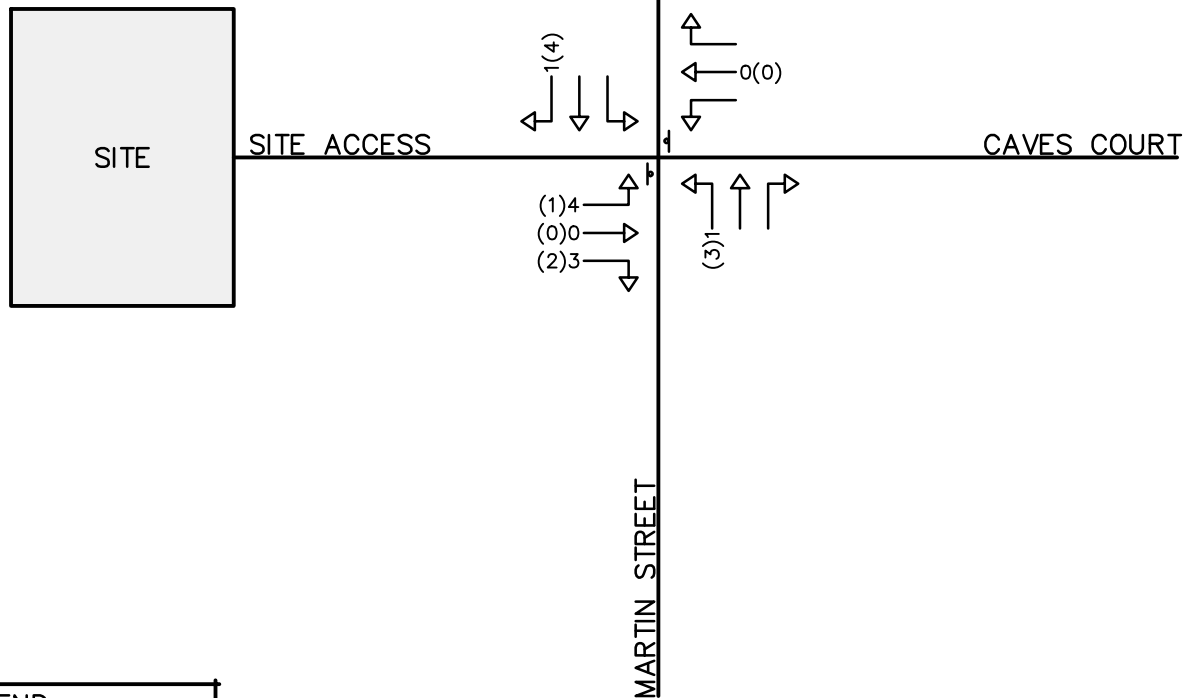
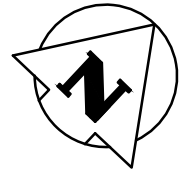
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| | | | | Dwg. | FIG. 06 |

NOTE:

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-  STOP CONTROL
-  YIELD CONTROL
-  ROUND ABOUT
-  WEEKDAY AM(PM)
TRIP DISTRIBUTION

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SITE TRIP ASSIGNMENT



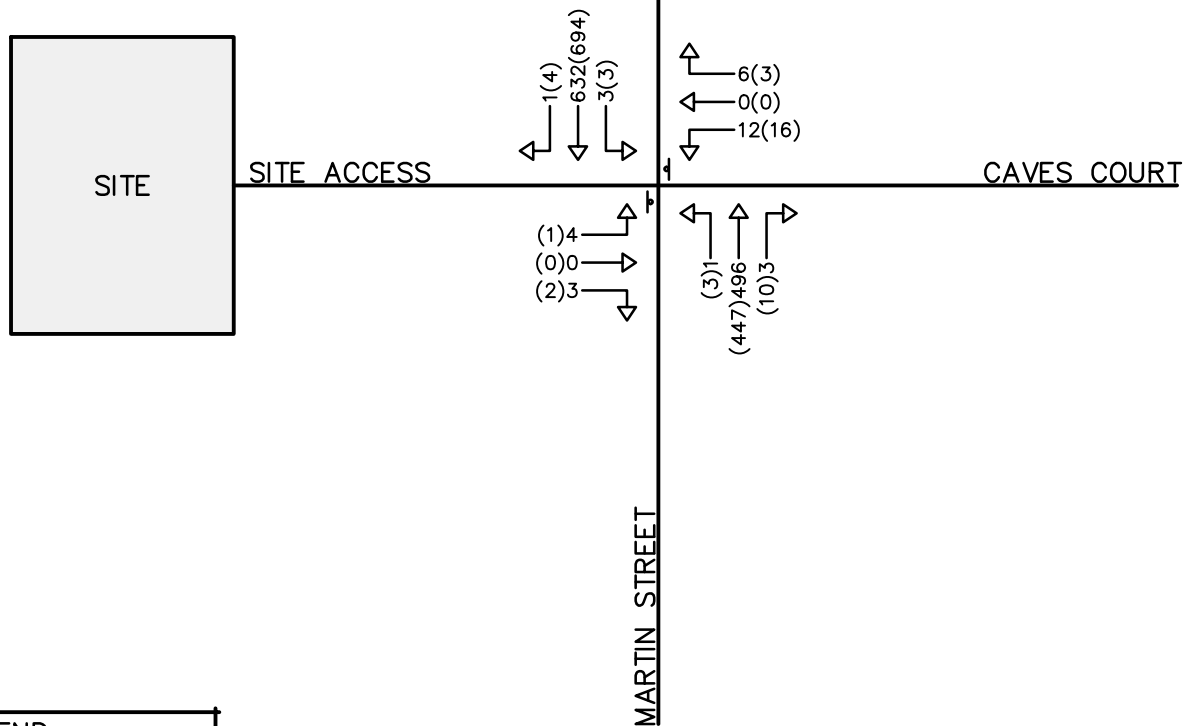
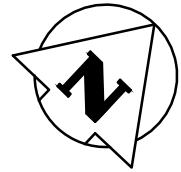
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| | | | | Dwg. | FIG. 07 |

NOTE:

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LEGEND:



SIGNAL CONTROL



STOP CONTROL



YIELD CONTROL



ROUND ABOUT



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| | | | | Dwg. | FIG. 08 |