CANDEVCON GROUP INC.
CONSULTING ENGINEERS & PLANNERS

GTA WEST OFFICE
9358 GOREWAY DRIVE
BRAMPTON, ONTARIO L6P 0M7
T: (905) 794-0600 F: (905) 794-0611

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Traffic Assessment Study

Proposed Estate Plan of Subdivision (Common Element Condominium) Condominium Development – Frisque Lands

869547 Ontario Inc.
3225 5th Concession Road
Part of Lots 3 and 4, Concession 5
City of Pickering

Project No: W21015

September 20, 2023

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Tables

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1. Introduction

CANDEVCON GROUP INC. was retained by 869547 Ontario Inc. to undertake a Traffic Assessment Study as a requirement by the City of Pickering for the zoning by-law amendment and draft plan of subdivision including draft plan of condominium (Common Element) application for the proposed Estate Subdivision Condominium Development. The subject lands are located at the northeast corner of the 5th Concession Road and Sideline 4 connection. **Figure 1** illustrates the location of the proposed Estate Subdivision Condominium Development.

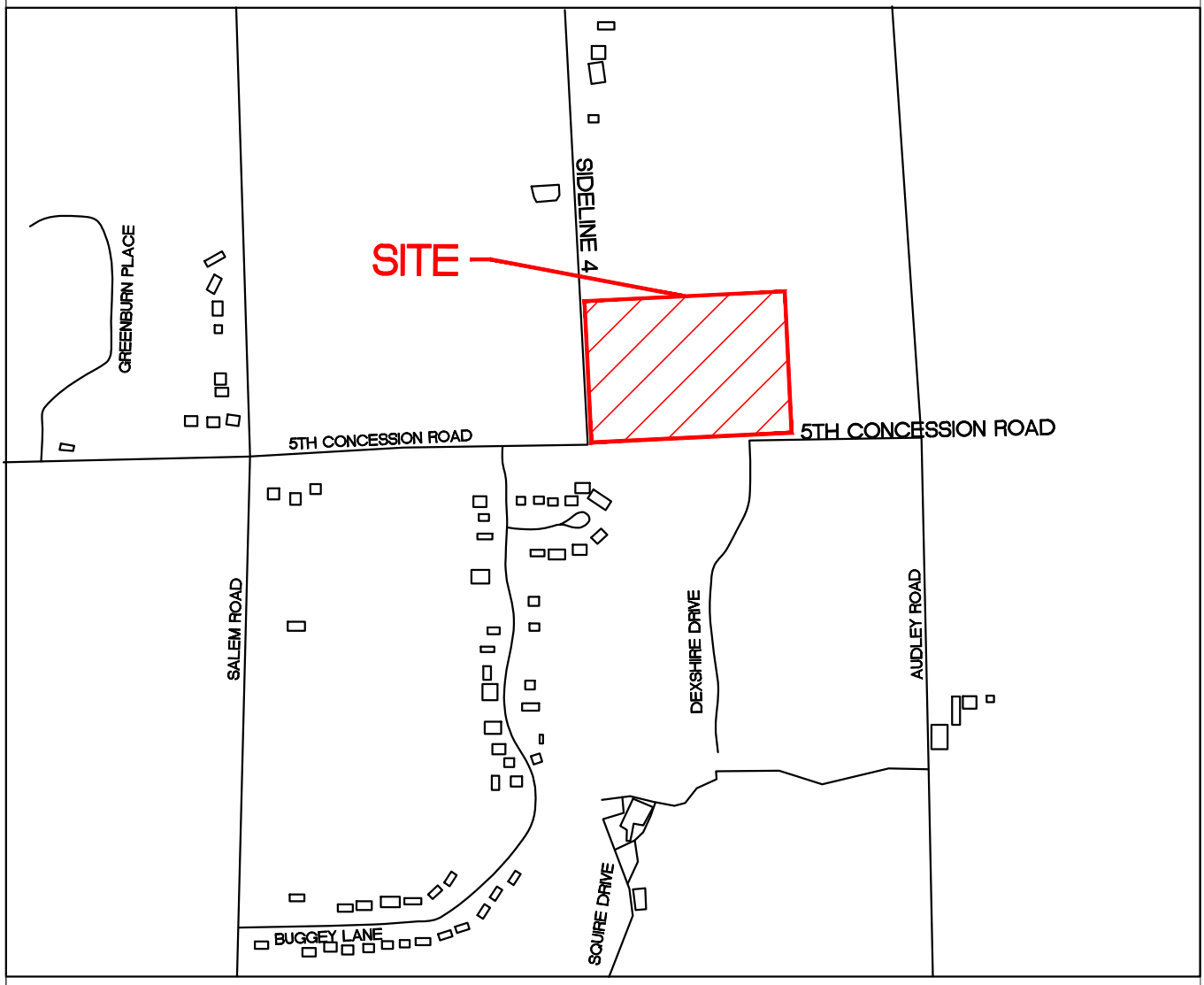
The purpose of this Study, is to determine the traffic impacts of the proposed Estate Subdivision Condominium Development on the surrounding road network, including the nearby intersection of Audley Road at 5th Concession Road, and to analyze the proposed Vehicular Accesses to the site.

It is assumed that the proposed Estate Subdivision Condominium Development will be fully build-out and operating by 2025. As a result, a horizon year of 2030 was analyzed, representing a five (5) year post build-out.

The Traffic Assessment Study addresses the future operations at the following intersections:

- Audley Road at 5th Concession Road,
- Proposed Site Access at 5th Concession Road,
- Proposed Site Access at Sideline 4.

The intersection of Audley Road at 5th Concession Road was studied under the Future (2030) Total Background and Future (2030) Total Traffic scenarios. The proposed Site Access at 5th Concession Road and the proposed Site Access at Sideline 4 intersections were studied under the Future (2030) Total Traffic scenario.



TRAFFIC ASSESSMENT STUDY FOR

869547 ONTARIO INC.

CITY OF PICKERING

LOCATION PLAN

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE, BRAMPTON, ONTARIO L6P 0M7
TEL. (905) 794-0600 FAX (905) 794-0611

DRAWN BY: B.W.	PROJECT No. W21015
CHECKED BY: D.L.	FIGURE No. 1
SCALE: N.T.S.	
DATE: SEPTEMBER 20, 2023	

2. Proposed Development – Study Area

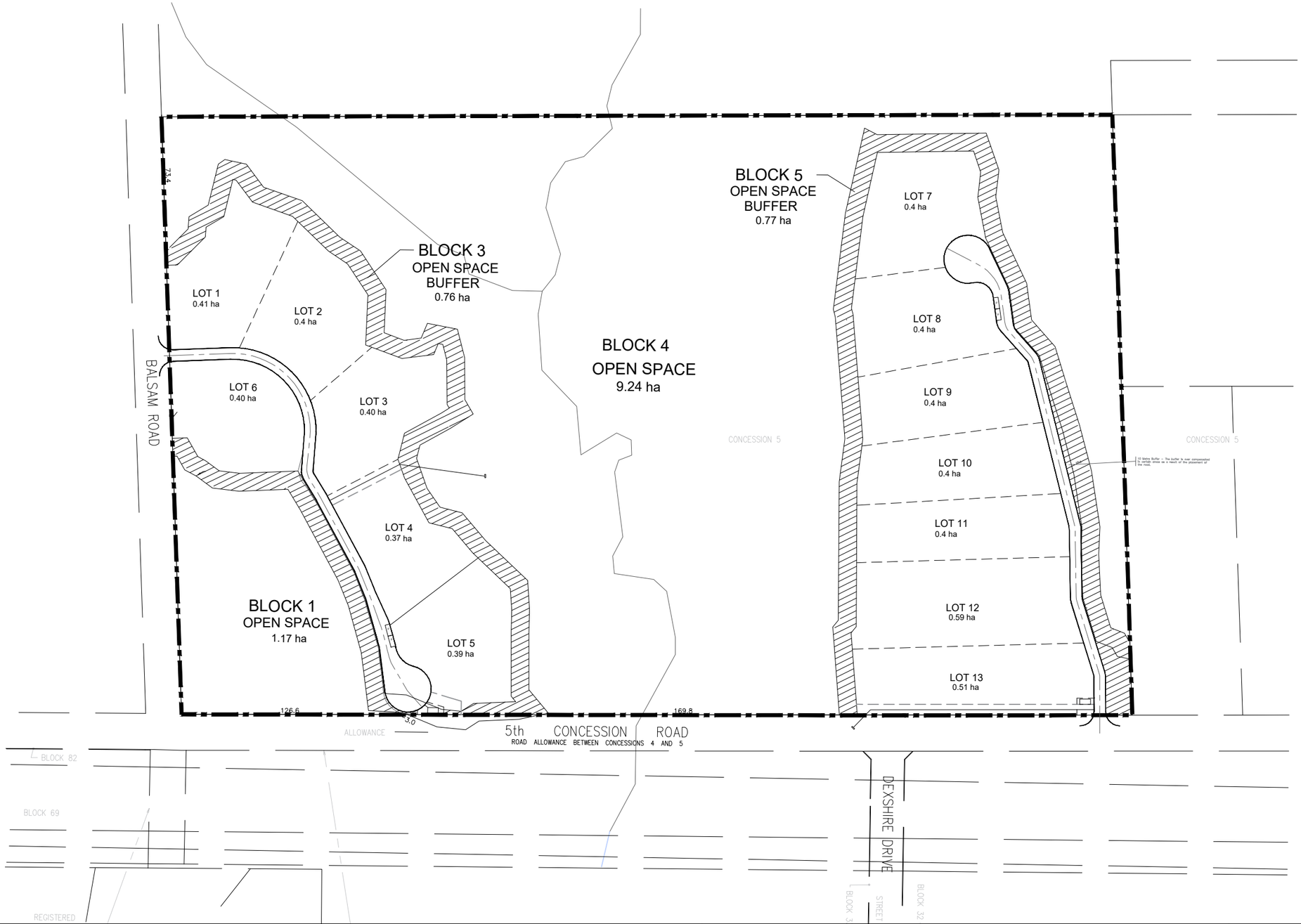
The subject development is located immediately east of Sideline 4 and north of 5th Concession Road. The total area of the development is approximately 17.91 hectares.

The surrounding land uses of the subject development are as follows:

- To the north, greenbelt lands,
- To the south, 5th Concession Road with Dexshire Drive and a future residential subdivision (Deer Creek East) beyond,
- To the east, greenbelt lands with a residential dwelling and Audley Road beyond,
- To the west, Sideline 4 with greenbelt lands beyond.

It is assumed that the proposed Estate Subdivision Condominium Development will be fully built-out and operating in 2025. The proposed Estate Subdivision Condominium Development will consist of 13 single detached homes. Within the development, a private road to Sideline 4 will service six (6) residential dwelling units and a private road to 5th Concession Road, east of the subject property, will service seven (7) residential dwelling units.

The proposed Draft Plan of Subdivision for the condominium development is provided in **Figure 2**.



869547 ONTARIO INC.

PROPOSED DRAFT PLAN OF SUBDIVISION CONDOMINIUM DEVELOPMENT

CITY OF PICKERING

PROPOSED DRAFT PLAN OF SUBDIVISION

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7

DATE: SEPTEMBER 20, 2023	JOB No. W21015
DESIGN: B.W.	FIG. No. 2
SCALE: N.T.S.	

3. Existing and Future Road Network

3.1 Existing Road Network

The existing road network within the Study Area comprises 5th Concession Road, Sideline 4 and Audley Road.

5th Concession Road

5th Concession Road is an east-west Type "B" arterial road under the jurisdiction of the City of Pickering. West of the Subject Lands, 5th Concession Road comprises a westerly connection with Brock Road while aligning with Whitevale Road and an easterly connection with Sideline 4. East of Sideline 4, the roadway connects with Dexshire Drive before connecting with Audley Road to form a T-intersection. Within the vicinity of the Study Area and west of Sideline 4, 5th Concession Road has a posted speed limit of 60 km/h. Between Audley Road and Dexshire Drive it has an assumed speed limit of 50 km/h. 5th Concession Road is a two-lane roadway with a rural cross section. It is anticipated that the roadway will not be widened by the horizon year.

Audley Road

Audley Road is a north-south local road under the jurisdiction of the City of Pickering. Within the Study Area, Audley Road is a two-lane roadway with a rural cross section and a posted speed limit of 60 km/h. It is anticipated that the roadway will not be widened by the horizon year.

Sideline 4

Sideline 4 is a north-south local road under the jurisdiction of the City of Pickering. The roadway comprises a southerly connection with 5th Concession Road and a north end that terminates via cul-de-sac; just south of Highway 407. Within the vicinity of the Study Area, Sideline 4 is a two-lane roadway with a rural cross section and a posted speed limit of 60 km/h. It is anticipated that the roadway will not be widened by the horizon year.

3.2 Future Road Network

As illustrated in **Figure 2**, two (2) private roads within the proposed Estate Subdivision Condominium Development will service the single detached homes. A private road to Sideline 4 will service six (6) residential dwelling units and a private road to 5th Concession Road, east of the subject property, will service seven (7) residential dwelling units.

4. Existing Traffic Conditions

4.1 Existing Background Traffic Volumes

To capture the existing traffic volumes for Audley Road, the northbound and southbound through movement volumes from turning movement counts for the Audley Road at 5th Concession Road intersection were utilized. The turning movement counts were conducted by Accu-Traffic Inc. (ATI) on Wednesday August 9, 2017. In order to capture the Weekday A.M. and P.M. Peak Hours, counts were conducted from 7:00 a.m. to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. The A.M. and P.M. Weekday Peak Hour traffic volumes occurred between 7:15 a.m. and 8:15 a.m. and between 4:45 p.m. and 5:45 p.m. The 2017 Peak Hour traffic counts were projected to the existing year of 2023. The growth in background traffic is summarized in Section 5.2.

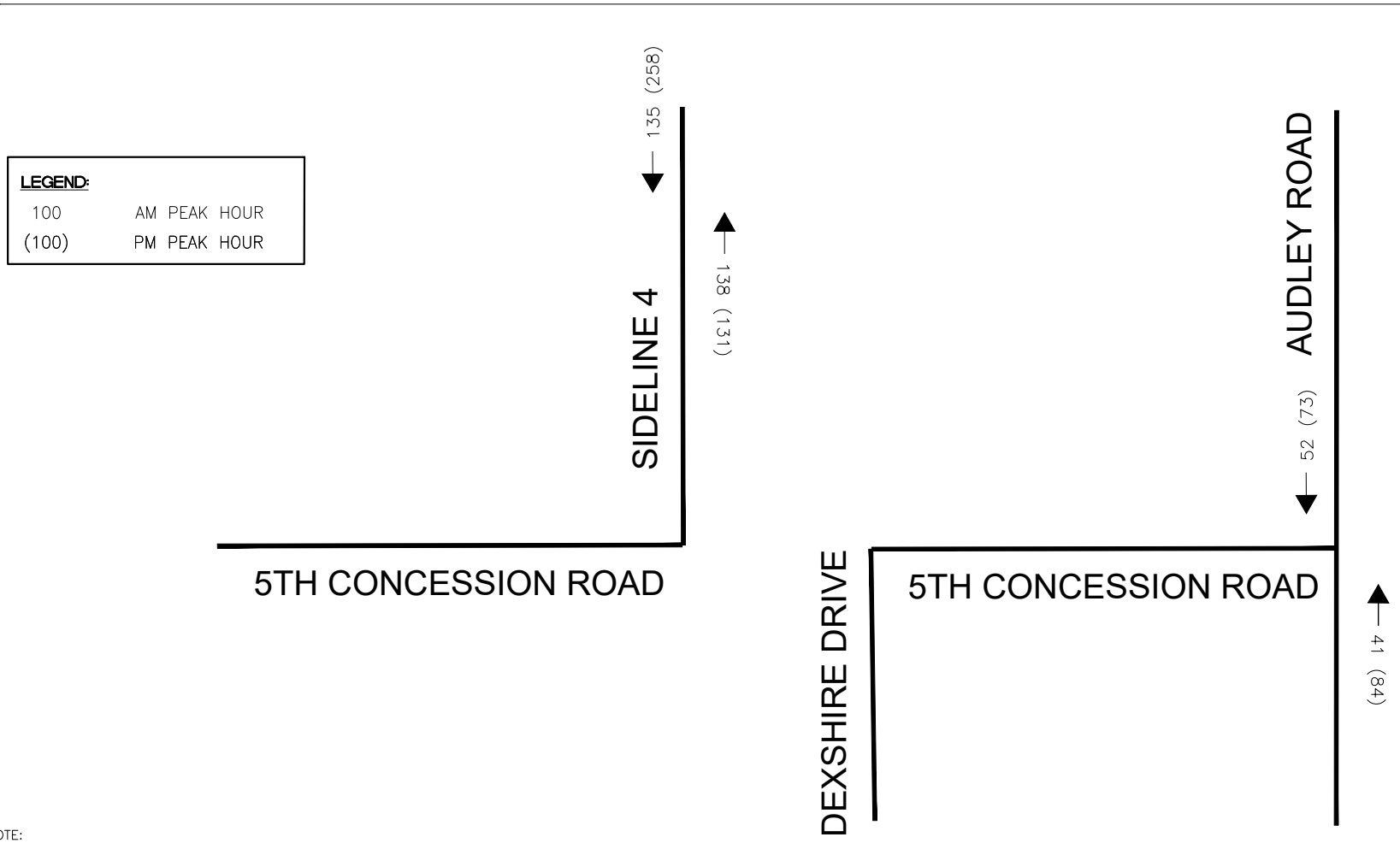
To capture the existing traffic volumes for Sideline 4, the inbound and outbound volumes for the east leg of the Concession Road 5 at Salem Road intersection from turning movement counts were utilized. The turning movement counts were provided by the City of Pickering and were conducted on Wednesday June 13, 2018. In order to capture the Weekday A.M. and P.M. Peak Hours, counts were conducted from 7:00 a.m. to 9:00 a.m. and from 2:00 p.m. to 6:00 p.m. The A.M. and P.M. Weekday Peak Hour traffic volumes occurred between 7:30 a.m. and 8:30 a.m. and between 3:45 p.m. and 4:45 p.m. The 2018 Peak Hour traffic counts were projected to the existing year of 2023. The growth in background traffic is summarized in Section 5.2.

The turning movement counts that were conducted by ATI and that were provided by the City of Pickering can be found in **Appendix A**.

The existing traffic volumes along Sideline 4 and Audley Road are summarized in **Table 1** and are illustrated in **Figure 3**.

Table 1: Existing (2023) Traffic Volumes

Road	Direction	A.M. Peak Hour	P.M. Peak Hour
Audley Road	Northbound	41	84
	Southbound	52	73
Sideline 4	Northbound	138	131
	Southbound	135	258



NOTE:

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2. DRAWING IS FOR SCHEMATIC PURPOSES ONLY AND NOT TO BE SCALED.

TRAFFIC ASSESSMENT STUDY
869547 ONTARIO INC.
PROPOSED CONDOMINIUM DEVELOPMENT ESTATE SUBDIVISION
CITY OF PICKERING

EXISTING (2023) TRAFFIC VOLUMES

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7

DATE: SEPTEMBER 20, 2023	JOB No. W21015
DRAWN BY: B.W.	FIG. No. 3
SCALE: N.T.S.	

5. Future Background Traffic Conditions

5.1 Other Background Developments

There is one (1) background development within the vicinity of the proposed Estate Subdivision Condominium Development that will impact the surrounding road network.

Deer Creek East is a residential subdivision currently under construction. The subdivision comprises 27 detached residential units and is located on the south side of 5th Concession Road and is approximately 375 metres west of Audley Road. Dexshire Drive connects to the section of 5th Concession Road that connects with Audley Road to form a three-legged intersection. A traffic study for Deer Creek East was not required. Therefore, the assumed site-generated trips, trip distribution, and trip assignment for Deer Creek East was determined in this Study.

5.1.1 Deer Creek East - Trip Generation

The trip generation formulae from the ITE Trip Generation Manual (ITE 2021)[1] were used for the single detached homes (Land Use 210) during the concerned Peak Hours of street traffic.

Table 2 summarizes the trip generation formulae and the percentages of incoming and outgoing trips during the Peak Hours.

Table 2: Trip Generation Formulae with Inbound and Outbound Percentages – Deer Creek East Residential Subdivision

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Fitted Curve Equation	**% In**	**% Out**	**Fitted Curve Equation**	**% In**	**% Out**
Single Family Detached Housing (LU 210)	Ln(T) = 0.91 Ln(X) + 0.12 (Note 1)	26	74	Ln(T) = 0.94 Ln(X) + 0.27 (Note 1)	63	37

Note 1: T represents the total number of trips and X represents the number of dwelling units.

[1] Trip Generation Manual (11th Edition), Institute of Transportation Engineers, September 2021.

5. Future Background Traffic Conditions - Continued

5.1.2 Deer Creek East - Total Site-Generated Trips

The resulting number of trips was determined by using the trip generation formulae in **Table 2** and the number of single detached homes provided by the background development. The future residential subdivision comprises 27 single detached homes.

The total number of trips generated during the concerned Peak Hours along with the number of trips coming in/out of the residential subdivision are summarized in **Table 3**.

Table 3: Site-Generated Trips – Deer Creek East Residential Subdivision

ITE Land Use	No. of Units	A.M. Peak Hour			P.M. Peak Hour		
		Trips In	Trips Out	Total	Trips In	Trips Out	Total
Deer Creek East – Residential Subdivision ***(LU 210)***	27	6	17	**23**	18	11	**29**

The residential subdivision is expected to generate 23 net trips during the A.M. Peak Hour (6 inbound trips and 17 outbound trips) and 29 net trips during the P.M. Peak Hour (18 inbound trips and 11 outbound trips).

5.1.3 Deer Creek East – Trip Distribution and Assignment

For the trip distribution and assignment of the trips generated by the Deer Creek East residential subdivision, it was assumed that work trips will be made during the A.M. Peak Hour and that home trips will be made during the P.M. Peak Hour. Therefore, the A.M. Peak Period work trip distribution from the 2016 Transportation Tomorrow Survey was utilized for the assumed trip distribution and trip assignment.

The assumed trip assignment will be as follows:

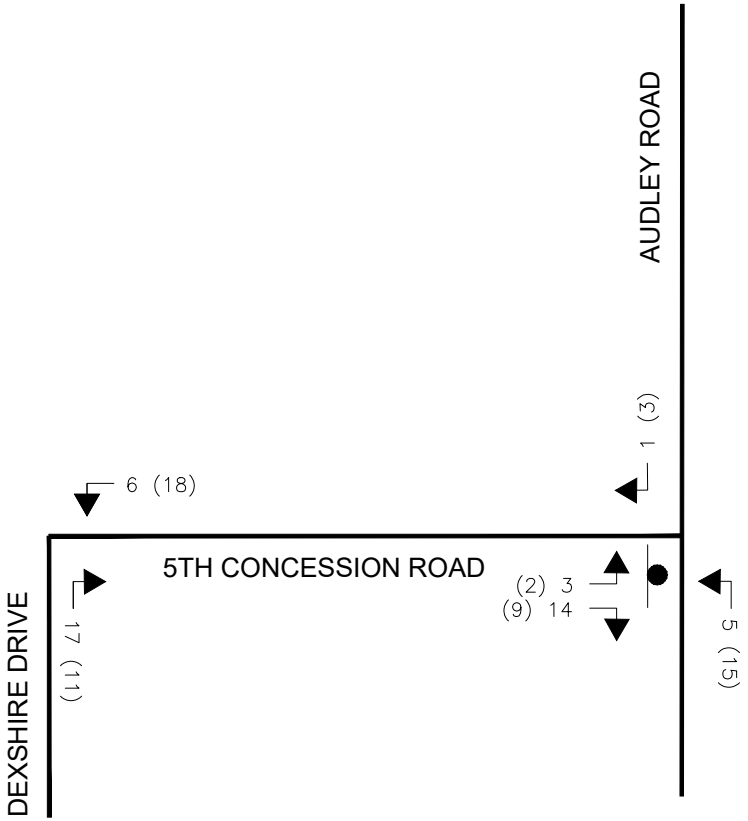
- 16% (16%) to/from the north via Audley Road,
- 84% (84%) to/from the south via Audley Road.

Figure 4 illustrates the Site-Generated Traffic volumes used in the analysis for the Deer Creek East Residential Subdivision

PEAK HOUR	NET GENERATED TRIPS		
	TRIPS IN	TRIPS OUT	TOTAL TRIPS
AM PEAK HOUR	6	17	23
PM PEAK HOUR	18	11	29

LEGEND:

100	AM PEAK HOUR
(100)	PM PEAK HOUR
—●	STOP SIGN



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TRAFFIC ASSESSMENT STUDY
869547 ONTARIO INC.
PROPOSED CONDOMINIUM DEVELOPMENT ESTATE SUBDIVISION
CITY OF PICKERING

SITE GENERATED TRIP ASSIGNMENT FOR DEER CREEK EAST BACKGROUND DEVELOPMENT

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7

DATE: SEPTEMBER 20, 2023	JOB No. W21015
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SCALE: N.T.S.	

5. Future Background Traffic Conditions - Continued

5.2 Traffic Growth Rate

The traffic growth rate was obtained from the City of Pickering and was applied to the through movements on Audley Road and Sideline 4. A 2% annual growth rate was applied from 2023 to 2030, respectively.

5.3 Future (2030) Background Traffic

The Future (2030) Background Traffic volumes are based on the 2023 Peak Hour Volumes projected with a 2% growth rate for seven (7) years plus the anticipated trips from the Deer Creek East residential subdivision. **Figure 5** illustrates the Future (2030) Total Background Traffic volumes for the road network within the Study Area during the A.M. and P.M. Weekday Peak Hours.

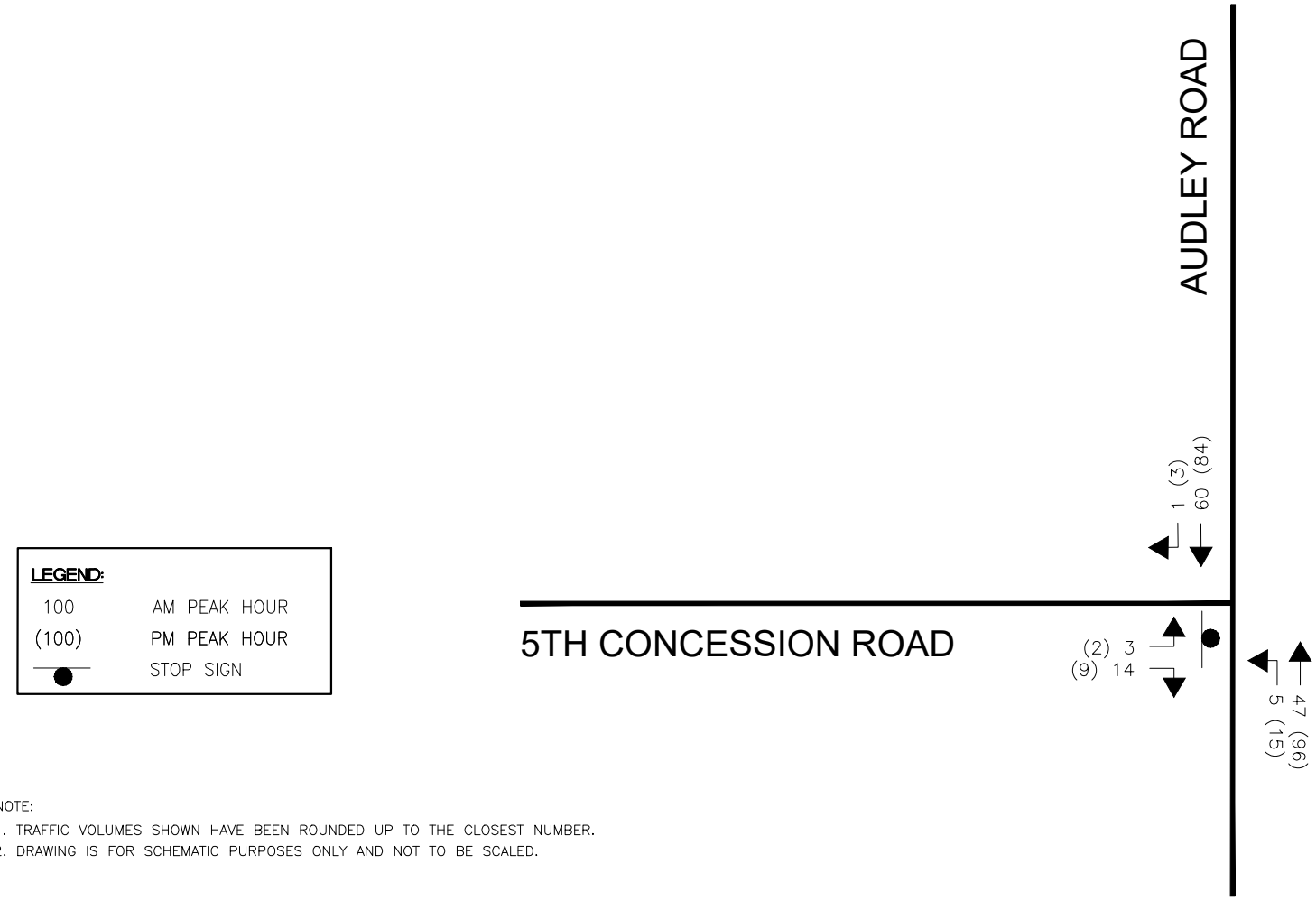
5.4 Future (2030) Background Traffic Analysis

The Future (2030) Total Background Traffic is illustrated in **Figure 5** and was analyzed using the procedures of the Highway Capacity Manual 2000/2010 as employed by SYNCHRO 9.0 software[2].

The intersection of Audley Road at 5th Concession Road was analyzed as an un-signalized intersection with a stop-control at the eastbound approach. The lane configuration used in the analysis comprises a shared through-left turning lane at the northbound approach; a shared left-right turning lane at the eastbound approach; and a shared through-right turning lane at the southbound approach.

The traffic conditions for the Future (2030) Total Background Traffic scenario are summarized in **Table 4** and the related calculations are provided in **Appendix C**. The Level of Service (LOS) definition for un-signalized intersections are included in **Appendix B** for reference.

[2] Synchro 9 Traffic Signal Optimization and Simulation Modeling Software, Version 9, Trafficware Corporation, 2014.



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TRAFFIC ASSESSMENT STUDY
869547 ONTARIO INC.
PROPOSED CONDOMINIUM DEVELOPMENT ESTATE SUBDIVISION
CITY OF PICKERING

FUTURE (2030) TOTAL BACKGROUND TRAFFIC VOLUMES

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7

DATE: SEPTEMBER 20, 2023	JOB No. W21015
DRAWN BY: B.W.	FIG. No. 5
SCALE: N.T.S.	

5. Future Background Traffic Conditions - Continued

5.4 Future (2030) Background Traffic Analysis - Continued

Table 4: Future (2030) Background Traffic – Level of Service

Intersection	Direction	A.M. Peak Hour				P.M. Peak Hour			
		V/C	LOS	Delay[1]	95th % Queue (m)	V/C	LOS	Delay[1]	95th % Queue (m)
Audley Road at 5th Concession Road (Un-signalized)	**Overall**	**0.04**	**A**	**1.8**	**n/a**	**0.05**	**A**	**1.3**	**n/a**
	Northbound	0.01	A	1.0	0.1	0.01	A	1.3	0.3
	Eastbound	0.02	A	8.8	0.6	0.02	A	9.0	0.4
	Southbound	0.04	A	0.0	0.0	0.05	A	0.0	0.0

The analysis of the Future (2030) Background Traffic Conditions indicates that the un-signalized intersection of Audley Road at 5th Concession Road will operate at a Level of Service "A" during the A.M. and P.M. Peak Hours. During the A.M. and P.M. Peak Hours, all of the turning movements will operate at a Level of Service "A".

6. Trip Generation and Distribution

6.1 Trip Generation

The trip generation formulae from the ITE Trip Generation Manual (ITE 2021)[1] were used for the single detached homes (Land Use 210) during the concerned Peak Hours of street traffic.

Table 5 summarizes the trip generation formulae and the percentages of incoming and outgoing trips during the A.M. and P.M. Peak Hours.

Table 5: Trip Generation Formulae with Inbound and Outbound Percentages

ITE Land Use	A.M. Peak Hour			P.M. Peak Hour		
	Fitted Curve Equation	**% In**	**% Out**	**Fitted Curve Equation**	**% In**	**% Out**
Single Family Detached Housing (LU 210)	Ln(T) = 0.91 Ln(X) + 0.12 (Note 1)	26	74	Ln(T) = 0.94 Ln(X) + 0.27 (Note 1)	63	37

Note 1: T represents the total number of trips and X represents the number of dwelling units.

6. Trip Generation and Distribution - Continued

6.2 Total Site-Generated Trips

The resulting number of trips was determined by using the trip generation formulae in **Table 5** and the number of single detached homes. The proposed Estate Subdivision Condominium Development comprises 13 single detached homes.

The resulting number of trips generated by the development during the concerned Peak Hours is summarized in **Table 6**.

Table 6: Site-Generated Trips

Development Area	A.M. Peak Hour			P.M. Peak Hour		
	Trips In	Trips Out	Total	Trips In	Trips Out	Total
Dwelling Units with Access to Sideline 4 (6 Units)	1	4	5	4	3	7
Dwelling Units with Access to 5th Concession Road (7 Units)	2	5	7	5	3	8
Total Trips	3	9	**12**	9	6	**15**

The proposed Estate Subdivision Condominium Development is expected to generate 12 net trips during the A.M. Peak Hour (3 inbound trips and 9 outbound trips) and 15 net trips during the P.M. Peak Hour (9 inbound trips and 6 outbound trips).

6.3 Trip Distribution and Assignment

For the trip distribution and assignment, it was assumed that work trips will be made during the A.M. Peak Hour and that home trips will be made during the P.M. Peak Hour. Therefore, the A.M. Peak Period work trip distribution from the 2016 Transportation Tomorrow Survey was utilized for the assumed trip distribution and trip assignment.

The assumed trip assignment will be as follows:

- 7% (7%) to/from the north via Sideline 4
- 39% (39%) to/from the south via Sideline 4
- 9% (9%) to/from the north via Audley Road
- 45% (45%) to/from the south via Audley Road

Figure 6 illustrates the Site-Generated Traffic volumes used in the analysis for the proposed Estate Subdivision Condominium Development.

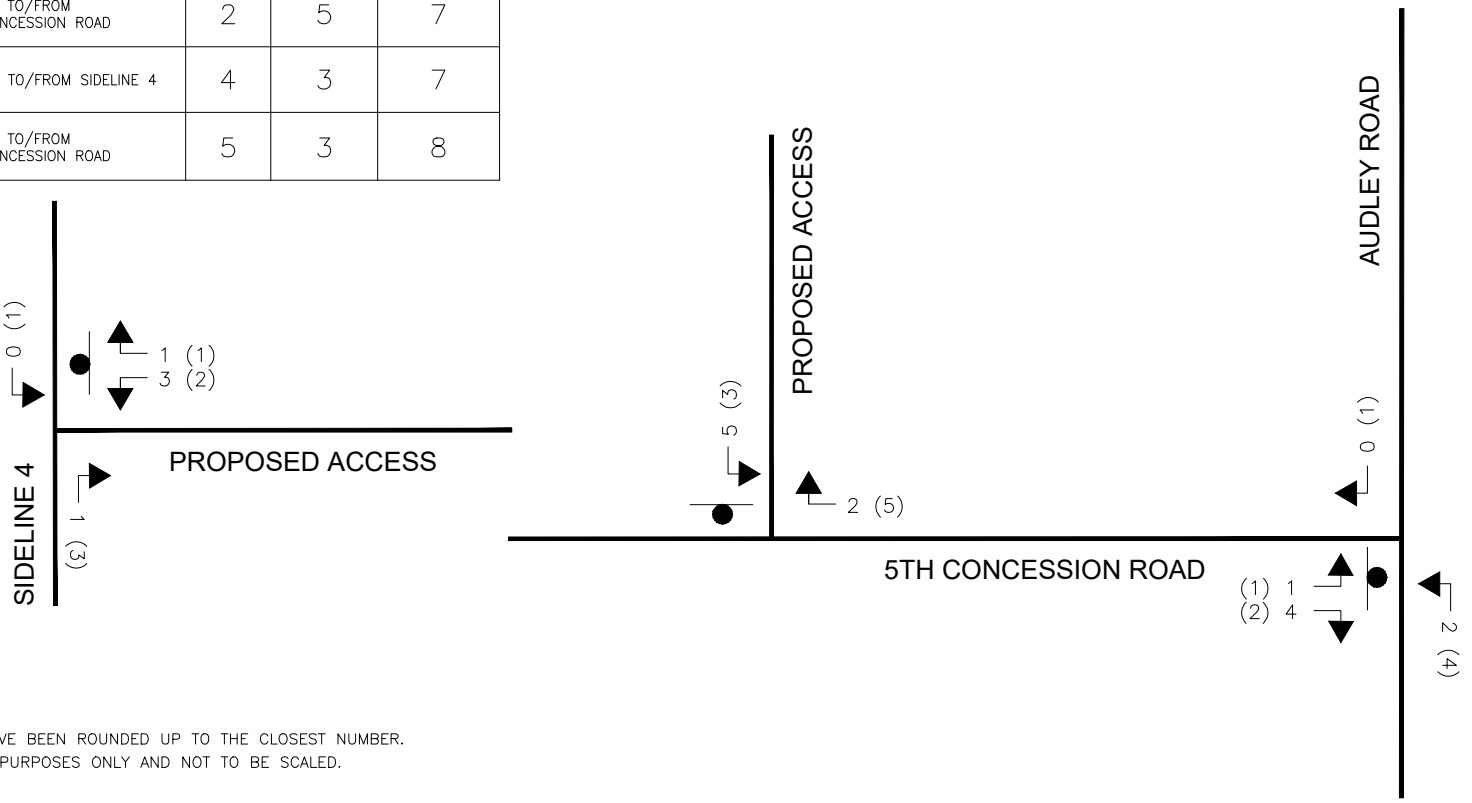
PEAK HOUR	DEVELOPMENT AREA	NET GENERATED TRIPS		
		TRIPS IN	TRIPS OUT	TOTAL TRIPS
AM PEAK HOUR	ACCESS TO/FROM SIDELINE 4	1	4	5
	ACCESS TO/FROM 5TH CONCESSION ROAD	2	5	7
PM PEAK HOUR	ACCESS TO/FROM SIDELINE 4	4	3	7
	ACCESS TO/FROM 5TH CONCESSION ROAD	5	3	8

LEGEND:

100 AM PEAK HOUR

(100) PM PEAK HOUR

STOP SIGN



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TRAFFIC ASSESSMENT STUDY
869547 ONTARIO INC.
PROPOSED CONDOMINIUM DEVELOPMENT ESTATE SUBDIVISION
CITY OF PICKERING

SITE GENERATED TRAFFIC ASSIGNMENT

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7

DATE: SEPTEMBER 20, 2023	JOB No. W21015
DRAWN BY: B.W.	FIG. No. 6
SCALE: N.T.S.	

7. Future Total Traffic Conditions

7.1 Future (2030) Total Traffic

Site-Generated Traffic volumes from the proposed Estate Subdivision Condominium Development were added to the Future (2030) Total Background Traffic to yield the Future (2030) Total Traffic. **Figure 7** illustrates the Future (2030) Total Traffic volumes used in the analysis.

7.2 Future (2030) Total Traffic Analysis

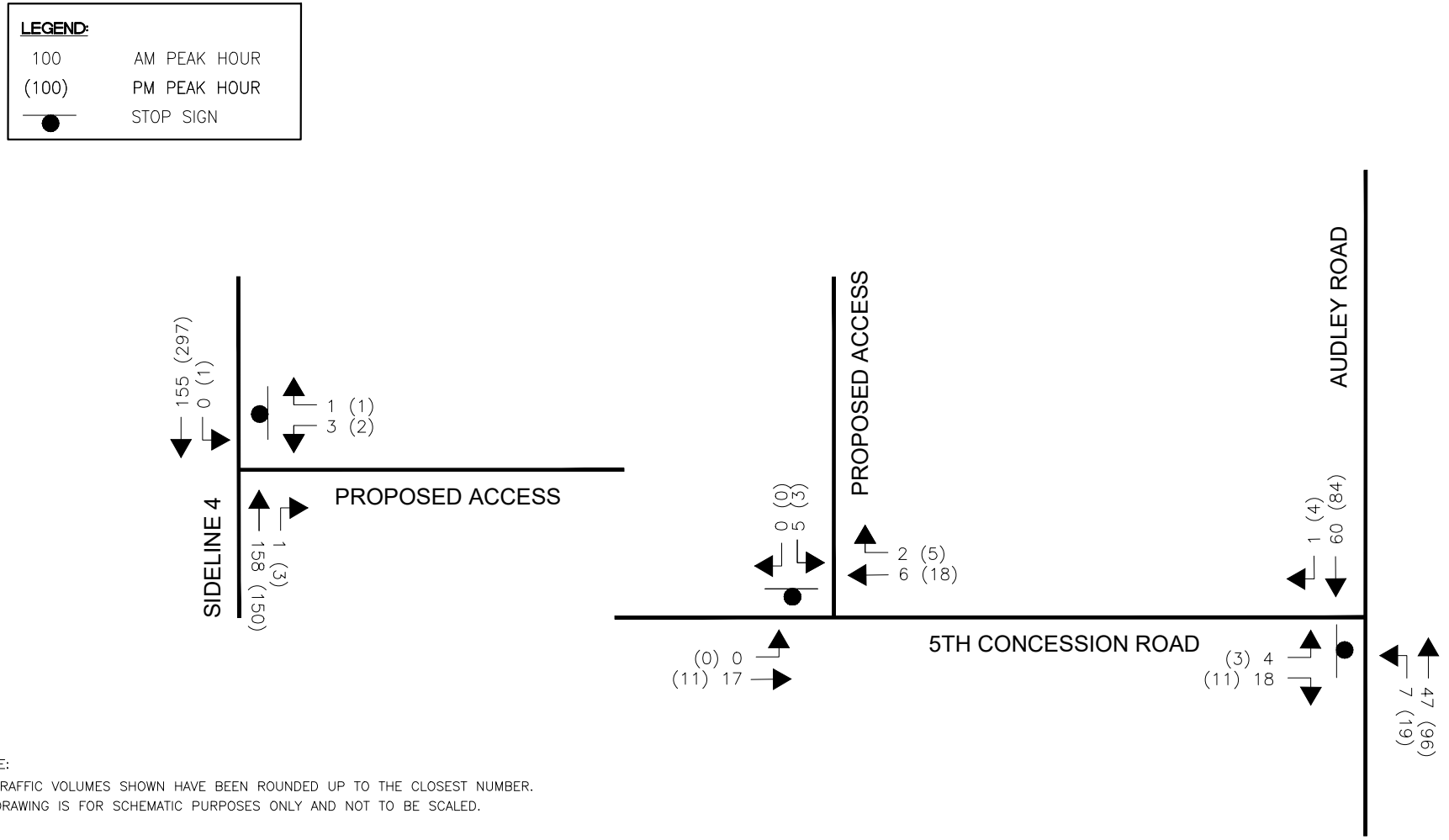
The Future (2030) Total Traffic is illustrated in **Figure 7** and was analyzed using the procedures of the Highway Capacity Manual 2000/2010 as employed by SYNCHRO 9.0 software.

For the intersection of Audley Road at 5th Concession Road, the lane configuration used in the Future (2030) Total Background Traffic Analysis was used in the Future (2030) Total Traffic Analysis.

The proposed Site Access at 5th Concession Road intersection was analyzed as an un-signalized intersection with a stop-control at the southbound approach. The lane configuration used in the analysis comprises a shared through-left turning lane at the eastbound approach; a shared left-right turning lane at the southbound approach; and a shared through-right turning lane at the westbound approach.

The proposed Site Access at Sideline 4 intersection was analyzed as an un-signalized intersection with a stop-control at the westbound approach. The lane configuration used in the analysis comprises a shared through-right turning lane at the northbound approach; a shared through-left turning lane at the southbound approach; and a shared left-right turning lane at the westbound approach.

The traffic conditions for the Future (2030) Total Traffic scenario are summarized in **Table 7** and the related calculations are provided in **Appendix C**.



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TRAFFIC ASSESSMENT STUDY
869547 ONTARIO INC.
PROPOSED CONDOMINIUM DEVELOPMENT ESTATE SUBDIVISION
CITY OF PICKERING

FUTURE (2030) TOTAL TRAFFIC VOLUMES

CANDEVCON GROUP INC.
CONSULTING ENGINEERS AND PLANNERS
9358 GOREWAY DRIVE BRAMPTON, ONTARIO L6P 0M7

DATE: SEPTEMBER 20, 2023	JOB No. W21015
DRAWN BY: B.W.	FIG. No. 7
SCALE: N.T.S.	

7. Future Total Traffic Conditions - Continued

7.2 Future (2030) Total Traffic Analysis - Continued

Table 7: Future (2030) Total Traffic-Level of Service

Intersection	Direction	A.M. Peak Hour				P.M. Peak Hour			
		V/C	LOS	Delay[1]	95th % Queue (m)	V/C	LOS	Delay[1]	95th % Queue (m)
Audley Road at 5th Concession Road (Un-signalized)	**Overall**	**0.04**	**A**	**1.8**	**n/a**	**0.05**	**A**	**1.3**	**n/a**
	Northbound	0.01	A	1.0	0.1	0.01	A	1.3	0.3
	Eastbound	0.02	A	8.8	0.6	0.02	A	9.0	0.4
	Southbound	0.04	A	0.0	0.0	0.05	A	0.0	0.0
Proposed Site Access at 5th Concession Road (Un-signalized)	**Overall**	**0.01**	**A**	**1.4**	**n/a**	**0.00**	**A**	**0.7**	**n/a**
	Eastbound	0.00	A	0.0	0.0	0.00	A	0.0	0.0
	Southbound	0.01	A	8.7	0.1	0.00	A	8.7	0.1
	Westbound	0.01	A	0.0	0.0	0.01	A	0.0	0.0
Proposed Site Access at Sideline 4 (Un-signalized)	**Overall**	**0.10**	**A**	**0.1**	**n/a**	**0.10**	A	**0.1**	**n/a**
	Northbound	0.10	A	0.0	0.0	0.10	A	0.0	0.0
	Southbound	0.00	A	0.0	0.0	0.00	A	0.0	0.0
	Westbound	0.01	B	10.2	0.1	0.00	B	10.9	0.1

Note 1: Delays are measured in seconds per vehicle.

Audley Road at 5th Concession Road

The analysis of the Future (2030) Total Traffic Conditions indicates that the un-signalized intersection will continue to operate at a Level of Service "A" during the A.M. and P.M. Peak Hours. During the A.M. and P.M. Peak Hours, all of the turning movements will continue to operate at a Level of Service "A".

Proposed Site Access at 5th Concession Road

The analysis of the Future (2030) Total Traffic Conditions indicates that the un-signalized intersection will operate at a Level of Service "A" during the A.M. and P.M. Peak Hours. During the A.M. and P.M. Peak Hours, all of the turning movements will operate at a Level of Service "A".

Proposed Site Access at Sideline 4

The analysis of the Future (2030) Total Traffic Conditions indicates that the un-signalized intersection will operate at a Level of Service "A" during the A.M. and P.M. Peak Hours. During the A.M. and P.M. Peak Hours, all of the turning movements will operate at a Level of Service "B" or better.

8. Summary and Recommendations

The proposed Estate Subdivision Condominium Development is expected to generate 12 net trips during the A.M. Peak Hour (3 inbound trips and 9 outbound trips) and 15 net trips during the P.M. Peak Hour (9 inbound trips and 6 outbound trips).

The proposed Site Access at 5th Concession Road and proposed Site Access at Sideline 4 intersections comprise of a stop-control at the access approach. The Audley Road at 5th Concession Road, proposed Site Access at 5th Concession Road and proposed Site Access at Sideline 4 intersections are expected to operate at a Level of Service "A" during the A.M. and P.M. Peak Hours for the 2030 horizon year.

Based on the above analysis, the concerned intersections will operate at acceptable levels of service under the 2030 horizon year.

This report has been prepared by:
CANDEVCON GROUP INC.

Brian Wong, P.Eng.
Intermediate Transportation Engineer

David Lee, P.Eng.
Project Manager

APPENDIX A

Turning Movement Counts

- Audley Road at 5th Concession Road
- Concession Road 5 at Salem Road

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Morning Peak Diagram

Specified Period
From: 7:00:00
To: 9:00:00

One Hour Peak
From: 7:15:00
To: 8:15:00

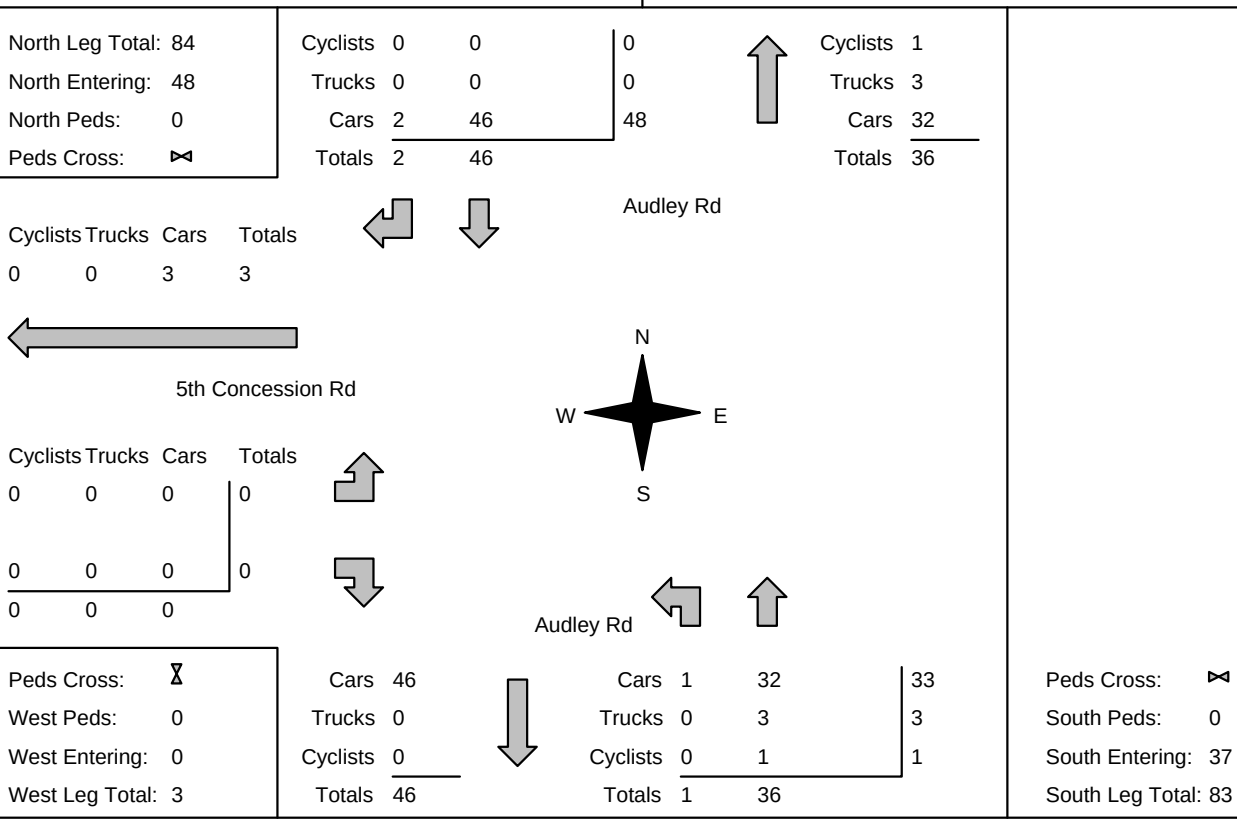
Municipality: Pickering
Site #: 1716100001
Intersection: Audley Rd & 5th Concession Rd
TFR File #: 1
Count date: 9-Aug-17

Weather conditions:

Person counted:
Person prepared:
Person checked:

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

Major Road: Audley Rd runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 16:00:00
To: 18:00:00

One Hour Peak
From: 16:45:00
To: 17:45:00

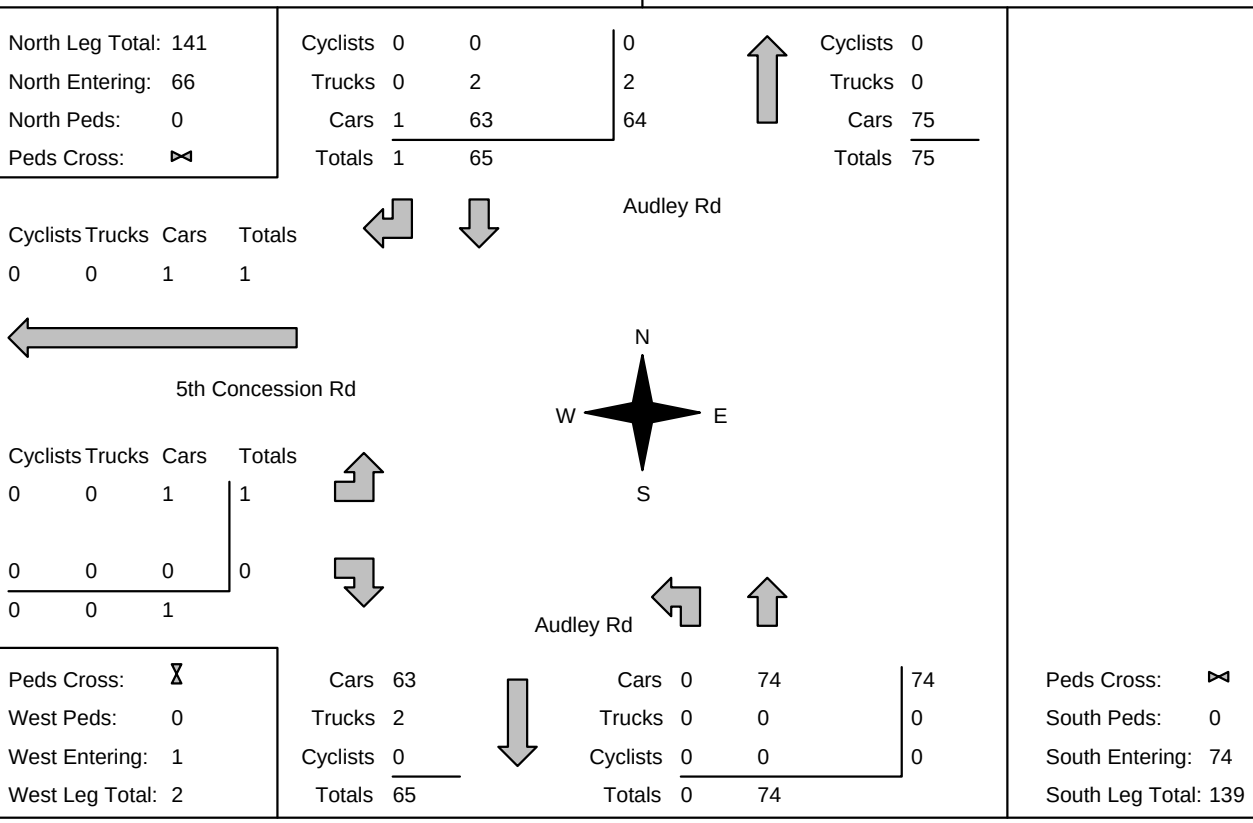
Municipality: Pickering
Site #: 1716100001
Intersection: Audley Rd & 5th Concession Rd
TFR File #: 1
Count date: 9-Aug-17

Weather conditions:

Person counted:
Person prepared:
Person checked:

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

Major Road: Audley Rd runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Total Count Diagram

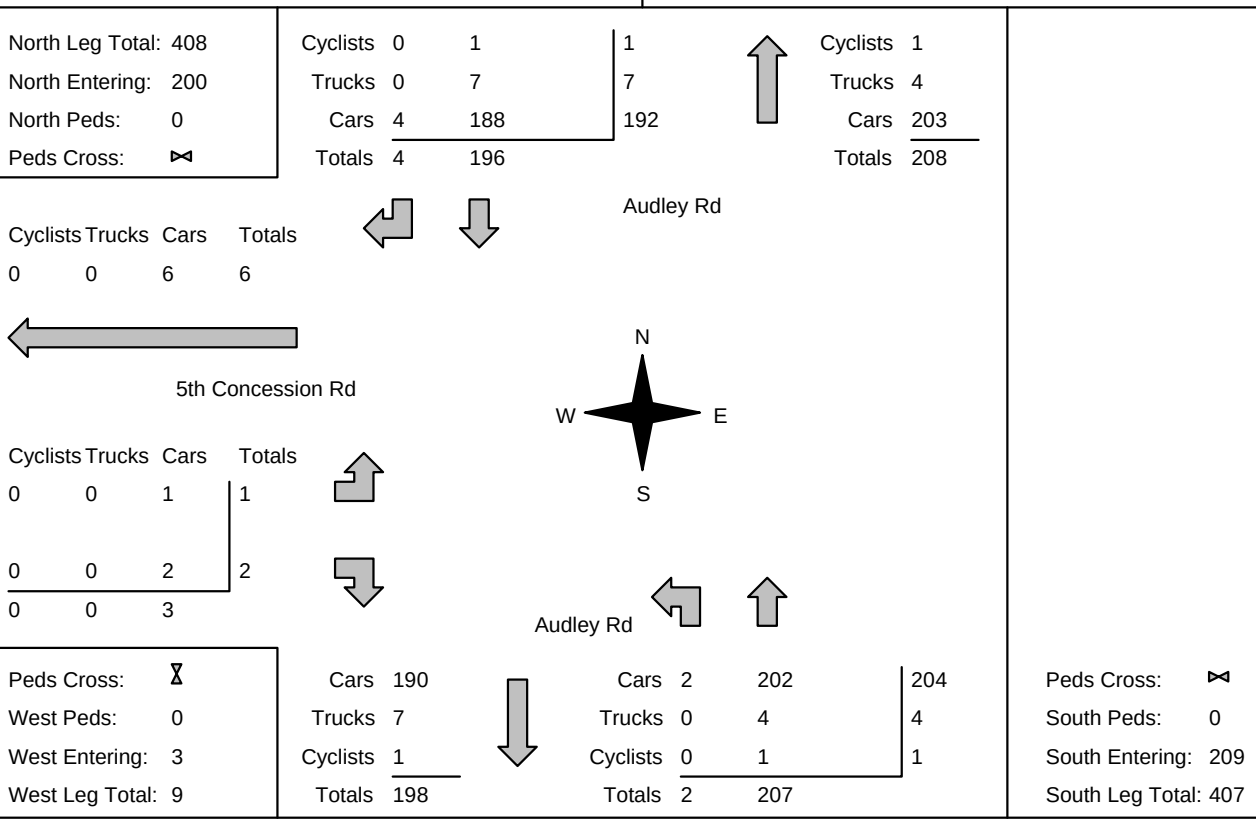
Municipality: Pickering
Site #: 1716100001
Intersection: Audley Rd & 5th Concession Rd
TFR File #: 1
Count date: 9-Aug-17

Weather conditions:

Person counted:
Person prepared:
Person checked:

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

Major Road: Audley Rd runs N/S



Comments

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Traffic Count Summary

Intersection: Audley Rd & 5th Concession Rd | **Count Date:** 9-Aug-17 | **Municipality:** Pickering

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Cyclists				Total Peds	North/South Total Approaches
	Left	Thru	Right	Grand Total		
7:00:00	*0*	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*42*	*0*	*42*	*0*	*72*
9:00:00	*0*	*40*	*3*	*43*	*0*	*81*
16:00:00	*0*	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*54*	*1*	*55*	*0*	*127*
18:00:00	*0*	*60*	*0*	*60*	*0*	*129*
Totals:	0	196	4	200	0	409

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Cyclists				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*1*	*29*	*0*	*30*	*0*
9:00:00	*0*	*38*	*0*	*38*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*72*	*0*	*72*	*0*
18:00:00	*1*	*68*	*0*	*69*	*0*
S Totals:	2	207	0	209	0

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Cyclists				Total Peds	East/West Total Approaches
	Left	Thru	Right	Grand Total		
7:00:00	*0*	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*	*0*
9:00:00	*0*	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*0*	*0*	*0*	*1*
18:00:00	*0*	*0*	*0*	*0*	*0*	*2*
Totals:	0	0	0	0	0	3

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Cyclists				Total Peds
	Left	Thru	Right	Grand Total	
7:00:00	*0*	*0*	*0*	*0*	*0*
8:00:00	*0*	*0*	*0*	*0*	*0*
9:00:00	*0*	*0*	*0*	*0*	*0*
16:00:00	*0*	*0*	*0*	*0*	*0*
17:00:00	*0*	*0*	*1*	*1*	*0*
18:00:00	*1*	*0*	*1*	*2*	*0*
W Totals:	1	0	2	3	0

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*	*0*	*0*	*0*	*0*	*1*	*0*	*0*

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 9-Aug-17 Site #: 1716100001

Interval Time	Passenger Cars - North Approach						Trucks - North Approach						Cyclists - 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	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	18	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	29	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00:00	0	0	42	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15:00	0	0	52	10	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30:00	0	0	65	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45:00	0	0	70	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:00:00	0	0	82	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15:00	0	0	82	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:00:00	0	0	82	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15:00	0	0	90	8	3	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	98	8	3	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	114	16	3	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	132	18	4	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	145	13	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	155	10	4	0	0	0	5	1	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	177	22	4	0	0	0	6	1	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	188	11	4	0	0	0	7	1	0	0	0	0	1	1	0	0	0	0
18:15:00	0	0	188	0	4	0	0	0	7	0	0	0	0	0	1	0	0	0	0	0
18:15:15	0	0	188	0	4	0	0	0	7	0	0	0	0	0	1	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 9-Aug-17 Site #: 1716100001

Interval Time	Passenger Cars - East Approach						Trucks - East Approach						Cyclists - 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	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
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 9-Aug-17 Site #: 1716100001

Interval Time	Passenger Cars - South Approach						Trucks - South Approach						Cyclists - 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	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	12	8	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	18	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
8:00:00	1	1	26	8	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0
8:15:00	1	0	36	10	0	0	0	0	3	0	0	0	0	0	1	1	0	0	0	0
8:30:00	1	0	42	6	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0
8:45:00	1	0	49	7	0	0	0	0	4	1	0	0	0	0	1	0	0	0	0	0
9:00:00	1	0	62	13	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
9:15:00	1	0	62	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
16:00:00	1	0	62	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
16:15:00	1	0	82	20	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
16:30:00	1	0	99	17	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
16:45:00	1	0	116	17	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
17:00:00	1	0	134	18	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
17:15:00	1	0	157	23	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
17:30:00	1	0	176	19	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
17:45:00	1	0	190	14	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
18:00:00	2	1	202	12	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
18:15:00	2	0	202	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0
18:15:15	2	0	202	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0

Accu-Traffic Inc.
Traffic Monitoring & Data Analysis

Accu-Traffic Inc.

Count Date: 9-Aug-17 Site #: 1716100001

Interval Time	Passenger Cars - West Approach						Trucks - West Approach						Cyclists - 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
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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30:00	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15:00	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45:00	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00:00	1	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:00	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
18:15:15	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

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

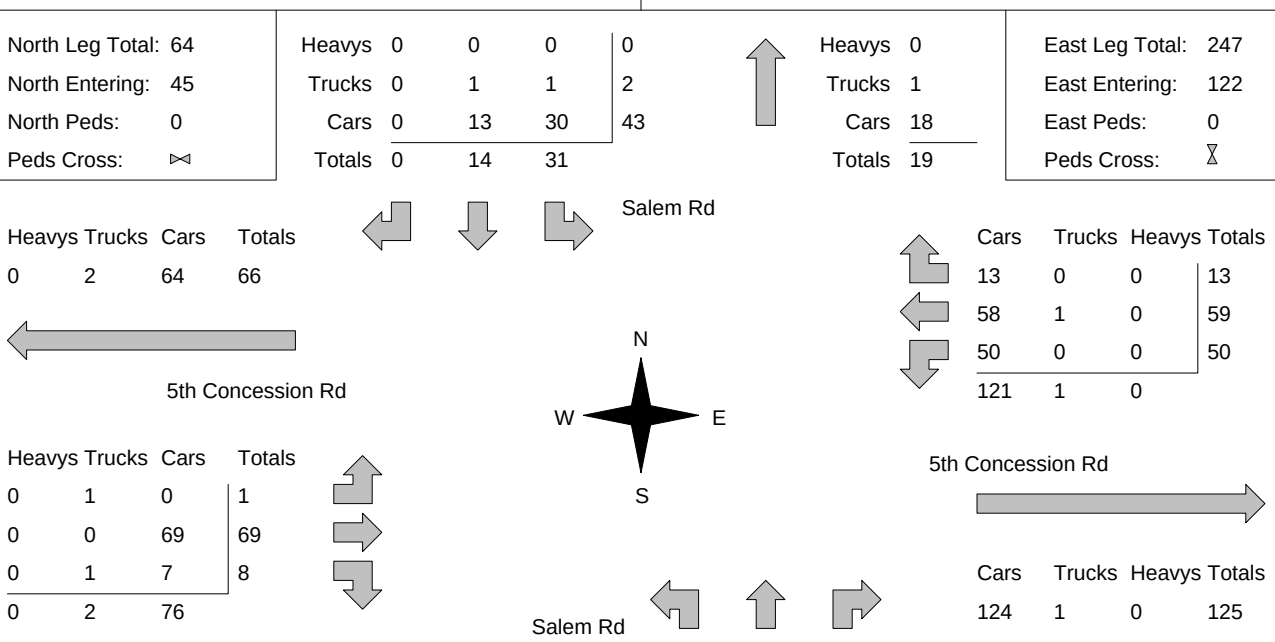
Municipality: Pickering
Site #: 1815700010
Intersection: 5th Concession Rd & Salem Rd
TFR File #: 1
Count date: 13-Jun-18

Weather conditions:

Person(s) who counted:

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

Major Road: 5th Concession Rd runs W/E



Comments

Ontario Traffic Inc.

Mid-day Peak Diagram

Specified Period
From: 11:00:00
To: 13:00:00

One Hour Peak
From: 11:30:00
To: 12:30:00

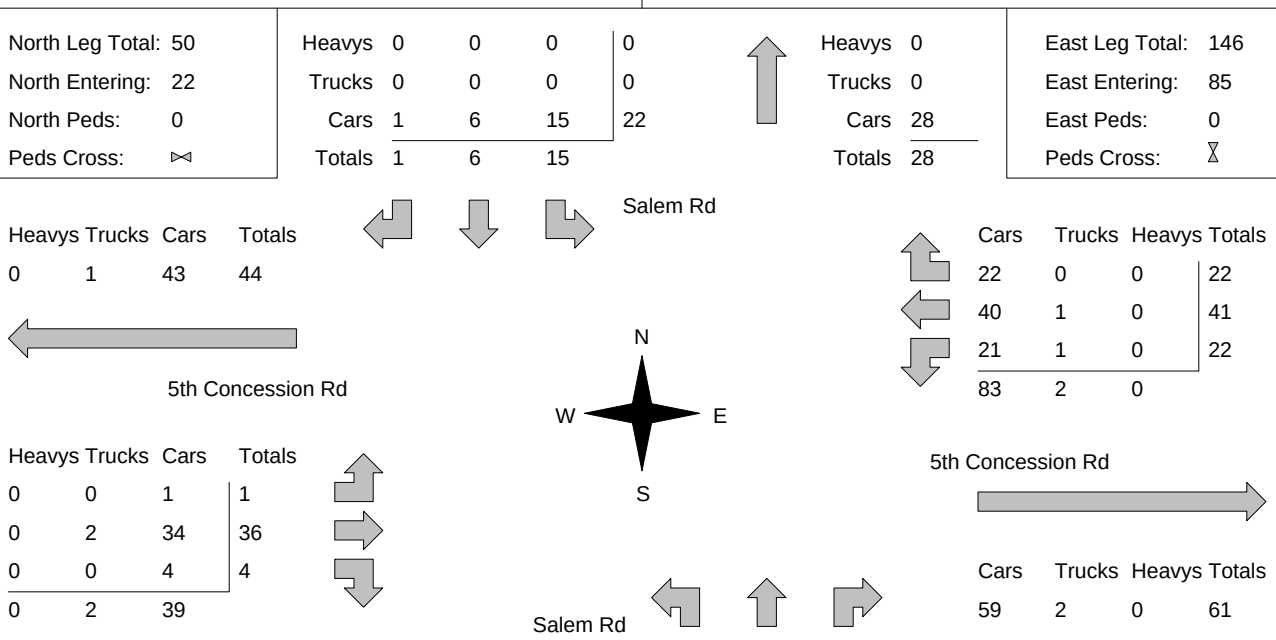
Municipality: Pickering
Site #: 1815700010
Intersection: 5th Concession Rd & Salem Rd
TFR File #: 1
Count date: 13-Jun-18

Weather conditions:

Person(s) who counted:

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

Major Road: 5th Concession Rd runs W/E



Comments

Ontario Traffic Inc.

Afternoon Peak Diagram

Specified Period
From: 14:00:00
To: 18:00:00

One Hour Peak
From: 15:45:00
To: 16:45:00

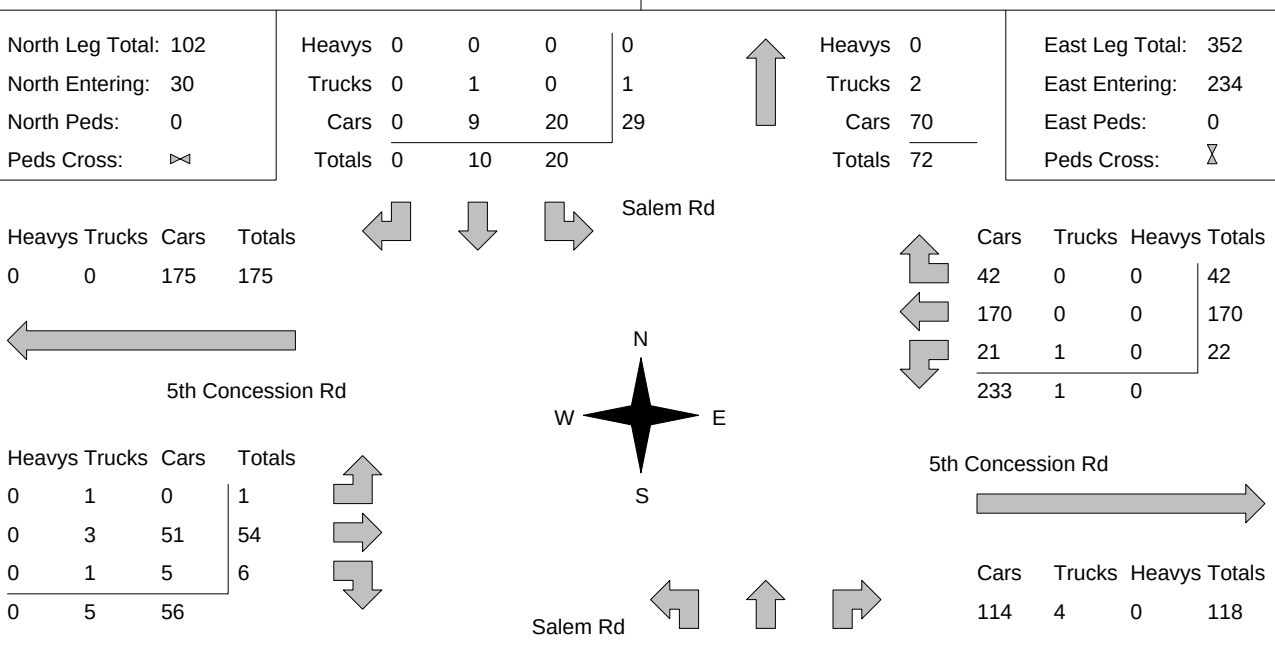
Municipality: Pickering
Site #: 1815700010
Intersection: 5th Concession Rd & Salem Rd
TFR File #: 1
Count date: 13-Jun-18

Weather conditions:

Person(s) who counted:

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

Major Road: 5th Concession Rd runs W/E



Comments

Ontario Traffic Inc.

Total Count Diagram

Municipality: Pickering
Site #: 1815700010
Intersection: 5th Concession Rd & Salem Rd
TFR File #: 1
Count date: 13-Jun-18

Weather conditions:

Person(s) who counted:

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

Major Road: 5th Concession Rd runs W/E

North Leg Total:	521			
North Entering:	219			
North Peds:	0			
Peds Cross:	⋈			
Heavys	0	0	0	0
Trucks	2	6	3	11
Cars	5	59	144	208
Totals	7	65	147	
Heavys	0			
Trucks	7			
Cars	295			
Totals	302			
East Leg Total:	1838			
East Entering:	993			
East Peds:	0			
Peds Cross:	⧖			

Salem Rd

Heavys	Trucks	Cars	Totals
0	16	631	647

	Cars	Trucks	Heavys	Totals
	197	2	0	199
	590	10	0	600
	191	3	0	194
	978	15	0	

5th Concession Rd

N

W E

S

Heavys	Trucks	Cars	Totals
0	3	4	7
0	8	435	443
0	4	25	29
0	15	464	

5th Concession Rd

	Cars	Trucks	Heavys	Totals
	832	13	0	845

Salem Rd

Peds Cross:	⧖			
West Peds:	0			
West Entering:	479			
West Leg Total:	1126			
Cars	275			
Trucks	13			
Heavys	0			
Totals	288			
Cars	36	94	253	383
Trucks	4	2	2	8
Heavys	0	0	0	0
Totals	40	96	255	
Peds Cross:	⋈			
South Peds:	1			
South Entering:	391			
South Leg Total:	679			

Comments

Ontario Traffic Inc.
Traffic Count Summary

Intersection: 5th Concession Rd & Salem Rd | **Count Date:** 13-Jun-18 | **Municipality:** Pickering

North Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys Left	Thru	Right	Grand Total	Total Peds	North/South Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	40	8	0	48	0	72
9:00:00	20	17	0	37	0	69
11:00:00	0	0	0	0	0	0
12:00:00	13	4	0	17	0	34
13:00:00	11	5	1	17	0	39
14:00:00	0	0	0	0	0	0
15:00:00	11	7	4	22	0	58
16:00:00	19	11	0	30	0	86
17:00:00	18	6	0	24	0	114
18:00:00	15	7	2	24	0	138
Totals:	147	65	7	219	0	610

South Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	7	2	15	24	0
9:00:00	5	6	21	32	0
11:00:00	0	0	0	0	0
12:00:00	0	5	12	17	0
13:00:00	3	3	16	22	0
14:00:00	0	0	0	0	0
15:00:00	5	7	24	36	0
16:00:00	5	15	36	56	0
17:00:00	5	31	54	90	1
18:00:00	10	27	77	114	0
Totals:	40	96	255	391	1

East Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys Left	Thru	Right	Grand Total	Total Peds	East/West Total Approaches
7:00:00	0	0	0	0	0	0
8:00:00	50	51	13	114	0	169
9:00:00	30	62	12	104	0	181
11:00:00	0	0	0	0	0	0
12:00:00	18	34	15	67	0	102
13:00:00	20	42	17	79	0	114
14:00:00	0	0	0	0	0	0
15:00:00	22	52	24	98	0	141
16:00:00	19	122	43	184	0	253
17:00:00	21	144	43	208	0	270
18:00:00	14	93	32	139	0	242
Totals:	194	600	199	993	0	1472

West Approach Totals

Hour Ending	Includes Cars, Trucks, & Heavys Left	Thru	Right	Grand Total	Total Peds
7:00:00	0	0	0	0	0
8:00:00	1	46	8	55	0
9:00:00	1	72	4	77	0
11:00:00	0	0	0	0	0
12:00:00	0	34	1	35	0
13:00:00	1	30	4	35	0
14:00:00	0	0	0	0	0
15:00:00	1	41	1	43	0
16:00:00	2	61	6	69	0
17:00:00	1	57	4	62	0
18:00:00	0	102	1	103	0
Totals:	7	443	29	479	0

Calculated Values for Traffic Crossing Major Street

Hours Ending:	8:00	9:00	12:00	13:00	15:00	16:00	17:00	18:00
Crossing Values:	55	42	18	19	23	39	54	52

Ontario Traffic Inc.

Count Date: 13-Jun-18 Site #: 1815700010

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	9	9	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	21	12	4	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0
7:45:00	26	5	5	1	0	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0
8:00:00	39	13	6	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
8:15:00	48	9	10	4	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
8:30:00	51	3	17	7	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
8:45:00	57	6	19	2	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
9:00:00	59	2	23	4	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
9:00:32	59	0	23	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
11:00:00	59	0	23	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
11:15:00	60	1	23	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0
11:30:00	63	3	24	1	0	0	2	1	2	0	0	0	0	0	0	0	0	0	0	0
11:45:00	65	2	26	2	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
12:00:00	71	6	27	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
12:15:00	74	3	28	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
12:30:00	78	4	30	2	1	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0
12:45:00	79	1	30	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
13:00:00	82	3	32	2	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
13:01:31	82	0	32	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
14:00:00	82	0	32	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
14:15:00	87	5	34	2	2	1	2	0	2	0	0	0	0	0	0	0	0	0	0	0
14:30:00	89	2	35	1	2	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0
14:45:00	89	0	36	1	2	0	2	0	3	1	0	0	0	0	0	0	0	0	0	0
15:00:00	93	4	38	2	3	1	2	0	3	0	2	2	0	0	0	0	0	0	0	0
15:15:00	96	3	41	3	3	0	2	0	4	1	2	0	0	0	0	0	0	0	0	0
15:30:00	102	6	42	1	3	0	2	0	5	1	2	0	0	0	0	0	0	0	0	0
15:45:00	107	5	43	1	3	0	2	0	5	0	2	0	0	0	0	0	0	0	0	0
16:00:00	112	5	47	4	3	0	2	0	5	0	2	0	0	0	0	0	0	0	0	0
16:15:00	119	7	47	0	3	0	2	0	6	1	2	0	0	0	0	0	0	0	0	0
16:30:00	125	6	50	3	3	0	2	0	6	0	2	0	0	0	0	0	0	0	0	0
16:45:00	127	2	52	2	3	0	2	0	6	0	2	0	0	0	0	0	0	0	0	0
17:00:00	129	2	52	0	3	0	3	1	6	0	2	0	0	0	0	0	0	0	0	0
17:15:00	132	3	55	3	4	1	3	0	6	0	2	0	0	0	0	0	0	0	0	0
17:30:00	134	2	55	0	5	1	3	0	6	0	2	0	0	0	0	0	0	0	0	0
17:45:00	140	6	58	3	5	0	3	0	6	0	2	0	0	0	0	0	0	0	0	0
18:00:00	144	4	59	1	5	0	3	0	6	0	2	0	0	0	0	0	0	0	0	0
18:15:00	144	0	59	0	5	0	3	0	6	0	2	0	0	0	0	0	0	0	0	0
18:15:37	144	0	59	0	5	0	3	0	6	0	2	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 13-Jun-18 Site #: 1815700010

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	11	11	9	9	1	1	0	0	0	0	1	1	0	0	0	0	0	0	0	0
7:30:00	22	11	24	15	4	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0
7:45:00	35	13	39	15	9	5	0	0	1	1	1	0	0	0	0	0	0	0	0	0
8:00:00	50	15	50	11	12	3	0	0	1	0	1	0	0	0	0	0	0	0	0	0
8:15:00	58	8	70	20	13	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0
8:30:00	72	14	82	12	17	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0
8:45:00	76	4	101	19	19	2	0	0	3	2	1	0	0	0	0	0	0	0	0	0
9:00:00	80	4	110	9	24	5	0	0	3	0	1	0	0	0	0	0	0	0	0	0
9:00:32	80	0	110	0	24	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0
11:00:00	80	0	110	0	24	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0
11:15:00	83	3	114	4	24	0	0	0	4	1	1	0	0	0	0	0	0	0	0	0
11:30:00	86	3	123	9	27	3	1	1	4	0	1	0	0	0	0	0	0	0	0	0
11:45:00	90	4	132	9	32	5	1	0	4	0	1	0	0	0	0	0	0	0	0	0
12:00:00	97	7	143	11	39	7	1	0	4	0	1	0	0	0	0	0	0	0	0	0
12:15:00	101	4	152	9	47	8	2	1	5	1	1	0	0	0	0	0	0	0	0	0
12:30:00	107	6	163	11	49	2	2	0	5	0	1	0	0	0	0	0	0	0	0	0
12:45:00	113	6	170	7	52	3	2	0	7	2	1	0	0	0	0	0	0	0	0	0
13:00:00	116	3	181	11	56	4	2	0	8	1	1	0	0	0	0	0	0	0	0	0
13:01:31	116	0	181	0	56	0	2	0	8	0	1	0	0	0	0	0	0	0	0	0
14:00:00	116	0	181	0	56	0	2	0	8	0	1	0	0	0	0	0	0	0	0	0
14:15:00	121	5	193	12	59	3	2	0	8	0	1	0	0	0	0	0	0	0	0	0
14:30:00	127	6	200	7	66	7	2	0	8	0	1	0	0	0	0	0	0	0	0	0
14:45:00	132	5	213	13	72	6	2	0	8	0	1	0	0	0	0	0	0	0	0	0
15:00:00	138	6	232	19	79	7	2	0	9	1	2	1	0	0	0	0	0	0	0	0
15:15:00	142	4	256	24	85	6	2	0	9	0	2	0	0	0	0	0	0	0	0	0
15:30:00	147	5	278	22	95	10	2	0	9	0	2	0	0	0	0	0	0	0	0	0
15:45:00	152	5	305	27	113	18	2	0	10	1	2	0	0	0	0	0	0	0	0	0
16:00:00	157	5	353	48	122	9	2	0	10	0	2	0	0	0	0	0	0	0	0	0
16:15:00	163	6	393	40	132	10	2	0	10	0	2	0	0	0	0	0	0	0	0	0
16:30:00	168	5	437	44	142	10	3	1	10	0	2	0	0	0	0	0	0	0	0	0
16:45:00	173	5	475	38	155	13	3	0	10	0	2	0	0	0	0	0	0	0	0	0
17:00:00	177	4	497	22	165	10	3	0	10	0	2	0	0	0	0	0	0	0	0	0
17:15:00	181	4	525	28	177	12	3	0	10	0	2	0	0	0	0	0	0	0	0	0
17:30:00	184	3	545	20	183	6	3	0	10	0	2	0	0	0	0	0	0	0	0	0
17:45:00	186	2	571	26	192	9	3	0	10	0	2	0	0	0	0	0	0	0	0	0
18:00:00	191	5	590	19	197	5	3	0	10	0	2	0	0	0	0	0	0	0	0	0
18:15:00	191	0	590	0	197	0	3	0	10	0	2	0	0	0	0	0	0	0	0	0
18:15:37	191	0	590	0	197	0	3	0	10	0	2	0	0	0	0	0	0	0	0	0

Ontario Traffic Inc.

Count Date: 13-Jun-18 Site #: 1815700010

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	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	3	2	1	1	3	2	0	0	1	1	1	1	0	0	0	0	0	0	0	0
7:45:00	5	2	1	0	8	5	0	0	1	0	1	0	0	0	0	0	0	0	0	0
8:00:00	6	1	1	0	14	6	1	1	1	0	1	0	0	0	0	0	0	0	0	0
8:15:00	6	0	5	4	21	7	1	0	1	0	1	0	0	0	0	0	0	0	0	0
8:30:00	9	3	6	1	28	7	1	0	1	0	1	0	0	0	0	0	0	0	0	0
8:45:00	10	1	7	1	31	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0
9:00:00	11	1	7	0	35	4	1	0	1	0	1	0	0	0	0	0	0	0	0	0
9:00:32	11	0	7	0	35	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
11:00:00	11	0	7	0	35	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
11:15:00	11	0	8	1	40	5	1	0	1	0	1	0	0	0	0	0	0	0	0	0
11:30:00	11	0	9	1	44	4	1	0	1	0	1	0	0	0	0	0	0	0	0	0
11:45:00	11	0	10	1	44	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0
12:00:00	11	0	12	2	47	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0
12:15:00	13	2	12	0	51	4	1	0	1	0	1	0	0	0	0	0	0	0	0	0
12:30:00	13	0	14	2	54	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0
12:45:00	13	0	15	1	57	3	1	0	1	0	1	0	0	0	0	0	0	0	0	0
13:00:00	13	0	15	0	63	6	2	1	1	0	1	0	0	0	0	0	0	0	0	0
13:01:31	13	0	15	0	63	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0
14:00:00	13	0	15	0	63	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0
14:15:00	15	2	17	2	66	3	2	0	1	0	1	0	0	0	0	0	0	0	0	0
14:30:00	16	1	19	2	72	6	2	0	1	0	1	0	0	0	0	0	0	0	0	0
14:45:00	16	0	19	0	78	6	2	0	1	0	1	0	0	0	0	0	0	0	0	0
15:00:00	17	1	22	3	87	9	3	1	1	0	1	0	0	0	0	0	0	0	0	0
15:15:00	18	1	27	5	98	11	3	0	1	0	1	0	0	0	0	0	0	0	0	0
15:30:00	19	1	29	2	106	8	3	0	1	0	1	0	0	0	0	0	0	0	0	0
15:45:00	21	2	33	4	115	9	3	0	1	0	1	0	0	0	0	0	0	0	0	0
16:00:00	22	1	37	4	123	8	3	0	1	0	1	0	0	0	0	0	0	0	0	0
16:15:00	22	0	46	9	130	7	3	0	2	1	1	0	0	0	0	0	0	0	0	0
16:30:00	23	1	51	5	144	14	3	0	2	0	2	1	0	0	0	0	0	0	0	0
16:45:00	26	3	61	10	158	14	3	0	2	0	2	0	0	0	0	0	0	0	1	1
17:00:00	27	1	67	6	176	18	3	0	2	0	2	0	0	0	0	0	0	0	1	0
17:15:00	29	2	76	9	196	20	3	0	2	0	2	0	0	0	0	0	0	0	1	0
17:30:00	33	4	85	9	221	25	4	1	2	0	2	0	0	0	0	0	0	0	1	0
17:45:00	34	1	89	4	235	14	4	0	2	0	2	0	0	0	0	0	0	0	1	0
18:00:00	36	2	94	5	253	18	4	0	2	0	2	0	0	0	0	0	0	0	1	0
18:15:00	36	0	94	0	253	0	4	0	2	0	2	0	0	0	0	0	0	0	1	0
18:15:37	36	0	94	0	253	0	4	0	2	0	2	0	0	0	0	0	0	0	1	0

Ontario Traffic Inc.

Count Date: 13-Jun-18 Site #: 1815700010

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	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30:00	0	0	20	11	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0
7:45:00	0	0	30	10	6	5	1	0	0	0	1	1	0	0	0	0	0	0	0	0
8:00:00	0	0	46	16	7	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0
8:15:00	0	0	65	19	7	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0
8:30:00	0	0	89	24	8	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0
8:45:00	0	0	105	16	8	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
9:00:00	0	0	118	13	11	3	2	0	0	0	1	0	0	0	0	0	0	0	0	0
9:00:32	0	0	118	0	11	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:00:00	0	0	118	0	11	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:15:00	0	0	125	7	11	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:30:00	0	0	133	8	11	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0
11:45:00	0	0	140	7	12	1	2	0	1	1	1	0	0	0	0	0	0	0	0	0
12:00:00	0	0	151	11	12	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0
12:15:00	0	0	161	10	13	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0
12:30:00	1	1	167	6	15	2	2	0	2	1	1	0	0	0	0	0	0	0	0	0
12:45:00	1	0	172	5	15	0	2	0	3	1	1	0	0	0	0	0	0	0	0	0
13:00:00	1	0	179	7	15	0	2	0	3	0	2	1	0	0	0	0	0	0	0	0
13:01:31	1	0	179	0	15	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
14:00:00	1	0	179	0	15	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
14:15:00	1	0	187	8	15	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
14:30:00	1	0	196	9	15	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
14:45:00	2	1	208	12	15	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
15:00:00	2	0	220	12	16	1	2	0	3	0	2	0	0	0	0	0	0	0	0	0
15:15:00	2	0	233	13	16	0	2	0	3	0	2	0	0	0	0	0	0	0	0	0
15:30:00	4	2	239	6	17	1	2	0	3	0	2	0	0	0	0	0	0	0	0	0
15:45:00	4	0	264	25	18	1	2	0	3	0	3	1	0	0	0	0	0	0	0	0
16:00:00	4	0	279	15	20	2	2	0	5	2	4	1	0	0	0	0	0	0	0	0
16:15:00	4	0	290	11	20	0	3	1	5	0	4	0	0	0	0	0	0	0	0	0
16:30:00	4	0	304	14	22	2	3	0	5	0	4	0	0	0	0	0	0	0	0	0
16:45:00	4	0	315	11	23	1	3	0	6	1	4	0	0	0	0	0	0	0	0	0
17:00:00	4	0	335	20	24	1	3	0	6	0	4	0	0	0	0	0	0	0	0	0
17:15:00	4	0	361	26	24	0	3	0	7	1	4	0	0	0	0	0	0	0	0	0
17:30:00	4	0	387	26	24	0	3	0	7	0	4	0	0	0	0	0	0	0	0	0
17:45:00	4	0	416	29	25	1	3	0	8	1	4	0	0	0	0	0	0	0	0	0
18:00:00	4	0	435	19	25	0	3	0	8	0	4	0	0	0	0	0	0	0	0	0
18:15:00	4	0	435	0	25	0	3	0	8	0	4	0	0	0	0	0	0	0	0	0
18:15:37	4	0	435	0	25	0	3	0	8	0	4	0	0	0	0	0	0	0	0	0

APPENDIX B

Level of Service Definitions

LEVEL OF SERVICE DEFINITIONS

Level of Service Criteria for Two Way Stop Control (TWSC) Intersections

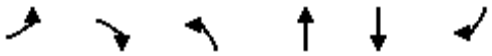
Level of Service	Control Delay per Vehicle (seconds)	Interpretation
A	≤ 10	**Excellent.** Large & frequent gaps in traffic on the main roadway. Queuing on the minor street is rare
B	>10 & ≤ 15	**Very Good**. Fewer gaps exist in the traffic on the main roadway. Queuing on the minor street is minimal.
C	>15 & ≤ 25	**Good.** Fewer gaps exist in traffic on the main roadway. Delay on the minor approach becomes more noticeable.
D	>25 & ≤ 35	**Fair.** Infrequent & shorter gaps in traffic on the main roadway. Queuing lengths develop on the minor street.
E	>35 & ≤ 50	**Poor.** Very infrequent gaps in traffic on the main roadway. Queuing lengths become noticeable.
F	>50	**Unsatisfactory.** Very few gaps in traffic on the main roadway. Excessive delays with significant queue lengths on the minor street

Source: *From Highway Capacity Manual Special Report 209-Table 10-7, Page No.10-25*

APPENDIX C

Synchro Analysis
Un-signalized Intersection Capacity Analysis

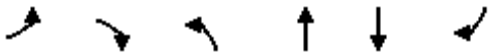
- Future (2030) Total Background Traffic
- Future (2030) Total Traffic



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	14	5	47	60	1
Future Volume (Veh/h)	3	14	5	47	60	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	3	16	6	53	67	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	132	68	68			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	132	68	68			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	100			
cM capacity (veh/h)	858	996	1533			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	19	59	68
Volume Left	3	6	0
Volume Right	16	0	1
cSH	971	1533	1700
Volume to Capacity	0.02	0.00	0.04
Queue Length 95th (m)	0.5	0.1	0.0
Control Delay (s)	8.8	0.8	0.0
Lane LOS	A	A	
Approach Delay (s)	8.8	0.8	0.0
Approach LOS	A		

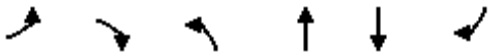
Intersection Summary			
Average Delay	1.5		
Intersection Capacity Utilization	16.6%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	2	9	15	96	84	3
Future Volume (Veh/h)	2	9	15	96	84	3
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	2	9	16	101	88	3
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	222	90	91			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	222	90	91			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	758	968	1504			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	11	117	91
Volume Left	2	16	0
Volume Right	9	0	3
cSH	922	1504	1700
Volume to Capacity	0.01	0.01	0.05
Queue Length 95th (m)	0.3	0.3	0.0
Control Delay (s)	9.0	1.1	0.0
Lane LOS	A	A	
Approach Delay (s)	9.0	1.1	0.0
Approach LOS	A		

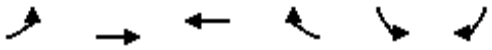
Intersection Summary			
Average Delay		1.0	
Intersection Capacity Utilization		22.5%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	4	18	7	47	60	1
Future Volume (Veh/h)	4	18	7	47	60	1
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	4	20	8	53	67	1
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	136	68	68			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	136	68	68			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	98	99			
cM capacity (veh/h)	852	996	1533			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	24	61	68
Volume Left	4	8	0
Volume Right	20	0	1
cSH	969	1533	1700
Volume to Capacity	0.02	0.01	0.04
Queue Length 95th (m)	0.6	0.1	0.0
Control Delay (s)	8.8	1.0	0.0
Lane LOS	A	A	
Approach Delay (s)	8.8	1.0	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.8		
Intersection Capacity Utilization	18.4%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	17	6	2	5	0
Future Volume (Veh/h)	0	17	6	2	5	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	18	7	2	5	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	9				26	8
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	9				26	8
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				99	100
cM capacity (veh/h)	1611				989	1074

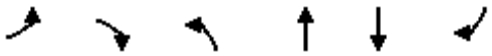
Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	18	9	5
Volume Left	0	0	5
Volume Right	0	2	0
cSH	1611	1700	989
Volume to Capacity	0.00	0.01	0.01
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s)	0.0	0.0	8.7
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	1.4		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	3	1	158	1	0	155
Future Volume (Veh/h)	3	1	158	1	0	155
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	3	1	172	1	0	168
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	340	172			173	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	340	172			173	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	655	871			1404	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	4	173	168
Volume Left	3	0	0
Volume Right	1	1	0
cSH	699	1700	1404
Volume to Capacity	0.01	0.10	0.00
Queue Length 95th (m)	0.1	0.0	0.0
Control Delay (s)	10.2	0.0	0.0
Lane LOS	B		
Approach Delay (s)	10.2	0.0	0.0
Approach LOS	B		

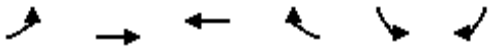
Intersection Summary			
Average Delay		0.1	
Intersection Capacity Utilization		18.4%	ICU Level of Service
Analysis Period (min)		15	



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	3	11	19	96	84	4
Future Volume (Veh/h)	3	11	19	96	84	4
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Hourly flow rate (vph)	3	12	20	101	88	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	231	90	92			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	231	90	92			
tC, single (s)	6.4	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	100	99	99			
cM capacity (veh/h)	747	968	1503			

Direction, Lane #	EB 1	NB 1	SB 1
Volume Total	15	121	92
Volume Left	3	20	0
Volume Right	12	0	4
cSH	914	1503	1700
Volume to Capacity	0.02	0.01	0.05
Queue Length 95th (m)	0.4	0.3	0.0
Control Delay (s)	9.0	1.3	0.0
Lane LOS	A	A	
Approach Delay (s)	9.0	1.3	0.0
Approach LOS	A		

Intersection Summary			
Average Delay	1.3		
Intersection Capacity Utilization	22.8%	ICU Level of Service	A
Analysis Period (min)	15		



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	0	11	18	5	3	0
Future Volume (Veh/h)	0	11	18	5	3	0
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	12	20	5	3	0
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	25				34	22
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	25				34	22
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	100				100	100
cM capacity (veh/h)	1589				979	1054

Direction, Lane #	EB 1	WB 1	SB 1
Volume Total	12	25	3
Volume Left	0	0	3
Volume Right	0	5	0
cSH	1589	1700	979
Volume to Capacity	0.00	0.01	0.00
Queue Length 95th (m)	0.0	0.0	0.1
Control Delay (s)	0.0	0.0	8.7
Lane LOS			A
Approach Delay (s)	0.0	0.0	8.7
Approach LOS			A

Intersection Summary			
Average Delay	0.7		
Intersection Capacity Utilization	13.3%	ICU Level of Service	A
Analysis Period (min)	15		

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	2	1	150	3	1	297
Future Volume (Veh/h)	2	1	150	3	1	297
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	2	1	163	3	1	323
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume	490	164			166	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	490	164			166	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	537	880			1412	

Direction, Lane #	WB 1	NB 1	SB 1
Volume Total	3	166	324
Volume Left	2	0	1
Volume Right	1	3	0
cSH	618	1700	1412
Volume to Capacity	0.00	0.10	0.00
Queue Length 95th (m)	0.1	0.0	0.0
Control Delay (s)	10.9	0.0	0.0
Lane LOS	B		A
Approach Delay (s)	10.9	0.0	0.0
Approach LOS	B		

Intersection Summary			
Average Delay	0.1		
Intersection Capacity Utilization	26.4%	ICU Level of Service	A
Analysis Period (min)	15		