

APPENDIX

H

NOISE ASSESSMENT MEMO



TECHNICAL MEMORANDUM

RE: Halton Region
**Municipal Class Environmental Assessment (MCEA) Study for the
Improvements of Steeles Avenue (Regional Road 8) between Tremaine
Road (Regional Road 22) and Industrial Drive in the Town of Milton**

FROM: Rhonda George-Hiebert, P.Eng., WSP

CC: Catherine Gentile, MCIP, RPP

SUBJECT: Halton Region Steeles Avenue MCEA Study – Noise Assessment

OUR FILE: 17M-00979

DATE: January 25, 2021

1. INTRODUCTION

Halton Region is carrying out a Municipal Class Environmental Assessment (MCEA) Study for improvements to Steeles Avenue between Tremaine Road and Industrial Drive in the Town of Milton.

As part of the MCEA Study, a noise assessment has been completed to assess potential noise impact to adjacent Noise Sensitive Areas (NSAs) as a result of the proposed improvements. NSAs within the study area includes rural residential properties located on Steeles Avenue.

The Steeles Avenue MCEA Study focuses on Steeles Avenue noise impacts to existing NSAs. As such, any future residential developments were not taken into consideration as part of the study's noise analysis. It should be noted that developers will be responsible to complete a Noise Impact Assessment (NIA) as part of development application for future residential developments within the Sherwood Survey Secondary Plan area. Should noise mitigation measures be identified in the NIA, they are to be provided by the developer as part of the land development.

This technical memorandum documents the noise assessment findings based on the Ministry of Transportation (MTO) / Ministry of the Environment, Conservation and Parks (MECP) Noise Protocol, as well as the Halton Region's Noise Abatement Guidelines (2014).

2. METHODOLOGY

Noise levels are predicted in decibels in the A-weighted dBA scale, which best approximates the human perception of sound over a specified time period. An increase of 2 to 3 decibels in noise level is considered to be just perceivable to the average person. It should be noted that a 3 dBA increase in noise equates to a doubling of traffic volumes.

MTO / MECP Guidelines

Since roadway sound levels vary over time, the noise descriptor used in Ontario to assess noise is the “equivalent sound level” - L_{eq} . L_{eq} is identified as the continuous sound level, which has the same energy as a time varying sound level over a specified time period. For the purposes of assessing municipal roadway noise, L_{eq} is calculated on the basis of the 16-hour daytime period, 7:00 a.m. to 11:00 p.m. For new residential development adjacent to existing roads, the provincial objective is 55 dBA in the outdoor living area (OLA) for the daytime period.

Based on the Ontario Ministry of Transportation (MTO) / Ministry of the Environment, Conservation and Parks (MECP) Noise Protocol, where an existing roadway is proposed to be modified / widened adjacent to a Noise Sensitive Area (NSA), MECP requires that the future noise levels without the proposed improvements be compared to the future noise level with the proposed improvements. The assessment is done at the outdoor living area (typically backyards) of each NSA. The provision of noise mitigation is to be investigated should the future noise level with the proposed improvements result in a greater than 5 dBA increase over the future noise level without the proposed improvements. If noise mitigation is provided, the objective is a minimum 5 dBA reduction. Mitigation will attempt to achieve levels as close to, or lower than, the objective level as is technically, economically and administratively feasible.

The STAMSON 5.0 computer modelling program, which is approved for use in Ontario by the MECP, was used to assess future noise levels on Steeles Avenue. This program is used to predict noise levels generated from the road at the outdoor living areas (typically backyards) of NSA's.

The MECP Publication NPC-206 “Sounds Levels Due to Road Traffic” states that: *“The methods apply at a point of reception in any community where the background sound level is dominated by the sound of road traffic, referred to as “urban hum”. Highly intrusive short duration noise caused by a source such as an aircraft fly-over or a train pass-by is excluded from the determination of this background sound level.”*

Accordingly, rail noise (i.e. from the CN railway and CP railway corridors) and industrial noise will not be mitigated as part of the project.

Halton Region’s Noise Abatement Policy (2006) and Noise Abatement Guidelines (2014)

Halton Region has its own Noise Abatement Policy which was “developed on the principle that existing Noise Sensitive Areas (NSA’s) that are exposed to high noise levels due to their proximity to a Regional noise source, such as a Regional Road, should receive consideration by the Region for retrofitting of noise attenuation measures.”

The Region Noise Abatement Policy is divided into three sections – A) Existing Residential Development, B) Regional Road Projects, and C) New Development. Under the Policy, Sections A) and B) would apply to this study, as discussed below:

Under the Existing Residential Development section (A), for NSAs that are exposed to high noise levels due to their proximity to a Regional noise sources, such as a Regional Road, should receive consideration for retrofitting of noise attenuation measures. The threshold where noise mitigation may be considered is 60 dBA. Per the Policy, retrofitting noise mitigation barriers may be installed in existing residential areas, which meet the warrants, established in this Policy. Their purpose is to reduce traffic noise in outdoor living areas as much as is technically, economically, and administratively practical toward the Region’s established sound level objectives for retrofit cases.

Under Regional Road Projects (B), road construction or expansion projects which have reverse frontage/flanking, noise abatement will be considered as part of the public process under the EA Act. The noise abatement is to be designed to abate noise generated from the future traffic projections for the design life of the road. The threshold for where noise abatement should be considered is if the net change in traffic volumes, based on the design life of the road, results in a change of 5 dBA over existing.



In addition, if a noise barrier is to be constructed as part of either of the above noted Policies (A & B), subject to the criteria and warrants in the Policies, it must provide a minimum sound reduction (Insertion Loss (IL)) of 5 dBA to the First Row Receiver

3. ANALYSIS

Noise levels were assessed for two future (2031) scenarios:

- Do-nothing Scenario with existing Steeles Avenue and traffic volumes (i.e. future with no improvements), and
- Proposed Scenario with realignment of Steele Avenue and future traffic volumes

The 16-hour period traffic volumes were estimated for both travelling directions based on existing (October 2019) ATR counts and the historical traffic growth rate. Medium and heavy truck percentages were estimated based on the existing ATR counts on Steeles Avenue. The ATR counts can be found in **Appendix A** at the end of this memo.

It should be noted that existing (2020) traffic volumes on Steeles Avenue were used to represent the future (2031) Do-nothing Scenario. This approach is acceptable, and it would yield a more conservative comparison between the future “with” and “without” improvements conditions. The 2020 and 2031 traffic volumes used in the noise assessment are presented in Table 1.

Table 1: 2020 and 2031 Traffic Volumes on Steeles Avenue

Traffic Volumes for	2020		2031	
Total Daily Traffic	10,680		16,760	
16-Hour	9,820		15,410	
Direction	EB	WB	EB	WB
All Vehicles	4,390	5,430	6,890	8,520
Auto	3,750	4,930	5,880	7,740
Medium Truck	8 %	7 %	8 %	7 %
	370	360	580	570
Heavy Truck	6 %	2 %	6 %	2 %
	270	140	430	210

The following table summarizes the main assumptions and factors used in the analysis.

Table 2: Assumptions and Factors used in Noise Analysis

Factor	Assumptions
Noise Descriptor	L_{eq} (16 hr)
Posted Speed	60 km/h (existing and future Steeles Avenue)
Road Gradient	3.6% (existing Steeles Avenue) 2.1% (future realigned Steeles Avenue)
Receptor Height	1.5 m above the ground

4. NOISE SENSITIVE AREA

There are a number of rural residential houses with direct access to existing Steeles Avenue (under the existing / future “do nothing” scenario). These residential houses would become reversed frontage to the proposed Steeles Avenue realignment. These properties are considered to be NSAs in this study (see Figure 1). Four of them were selected as the representative receivers for the noise assessment, as listed below and presented in Table 3.

- Receiver 1: 3190 Steeles Ave W
- Receiver 2: 3170 Steeles Ave W
- Receiver 3: 3164 Steeles Ave W
- Receiver 4: 3156 Steeles Ave W

5. ASSESSMENT RESULTS AND CONCLUSION

Projected noise levels were calculated using STAMSON 5.0 program for the selected receiver locations under the future (2031) traffic conditions. As shown in Table 4 and Figure 2, the projected increase in noise level as a result of the proposed realignment of Steeles Avenue under the future conditions is less than 5 dBA for all the representative receivers. The absolute noise levels for all representative receivers are projected to be less than 60 dBA. Based on findings of the noise assessment, the consideration of



noise mitigation under the MTO/MECP Noise Protocol, as well as the Region's Noise Abatement Guidelines is not warranted.

Figure 1: Representative Receivers in Noise Sensitive Area

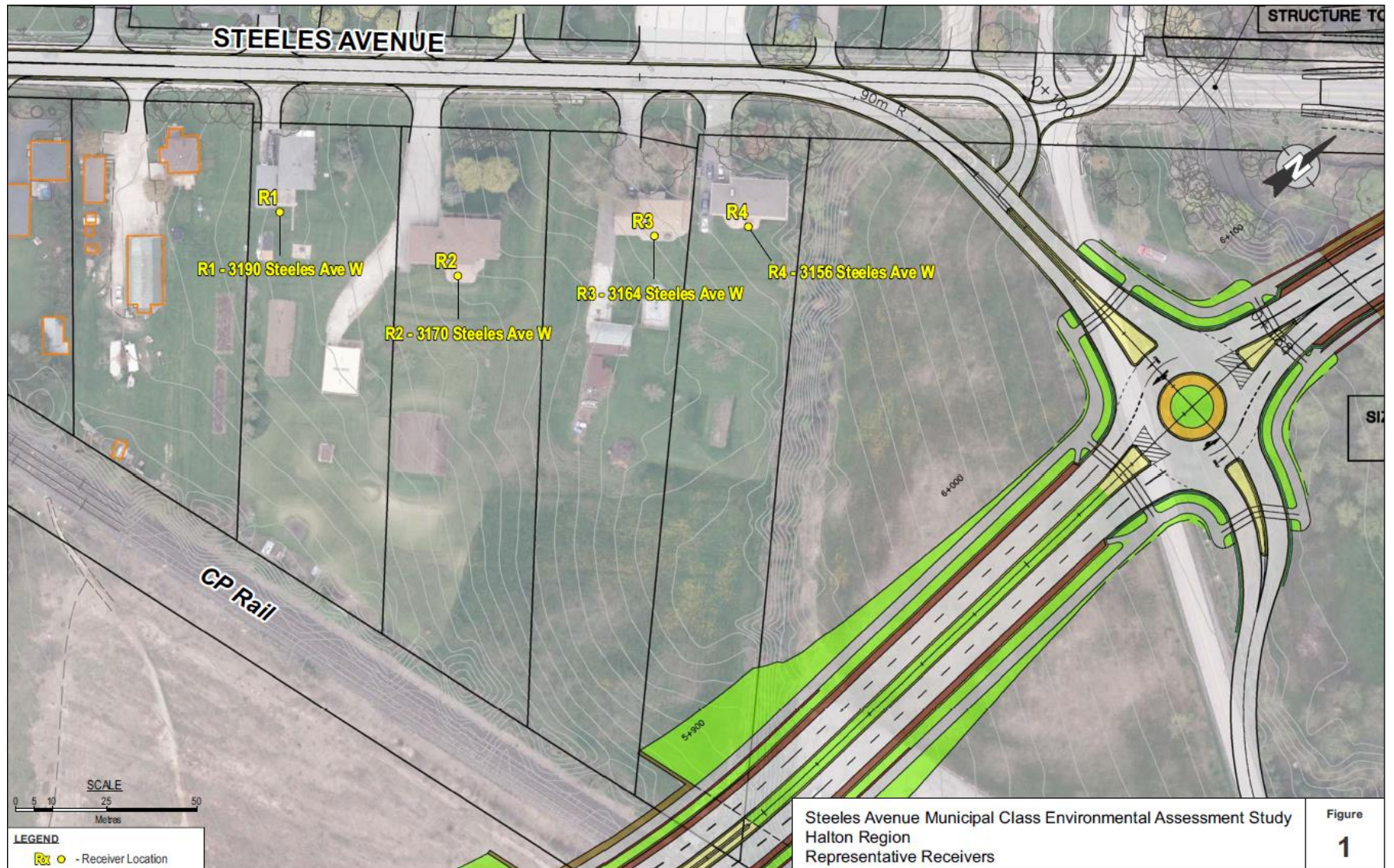


Table 3: Representative Receivers

Do-nothing with Existing Steeles Avenue (Future with No Improvements)

Receiver No.	Receiver Address	Characteristics (in relation to Steeles Avenue)	Posted Speed Limit (km/h)	Distance to Steeles Ave (m)	
				EB	WB
1	3190 Steeles Ave W	Frontage	60	39	43
2	3170 Steeles Ave W	Frontage	60	54	57
3	3164 Steeles Ave W	Frontage	60	44	48
4	3156 Steeles Ave W	Frontage	60	39	43

With Proposed Realignment of Steeles Avenue

Receiver No.	Receiver Address	Characteristics (in relation to Steeles Avenue)	Posted Speed Limit (km/h)	Distance to Steeles Ave (m)	
				EB	WB
1	3190 Steeles Ave W	Reverse Frontage	60	217	204
2	3170 Steeles Ave W	Reverse Frontage	60	172	160
3	3164 Steeles Ave W	Reverse Frontage	60	141	129
4	3156 Steeles Ave W	Reverse Frontage	60	126	114

Table 4: Summary of Noise Level Calculation

Receiver No.	Receiver Address	Noise Level (dBA)		Increase in Noise Level	Consideration of Noise Mitigation as per the Region's Noise Abatement Guidelines (2013) and MTO/MECP Noise Protocol
		Do-nothing (Future with No Improvements)	With Proposed Realignment of Steeles Ave		
1	3190 Steeles Ave W	54.7	53.8	-0.9	No
2	3170 Steeles Ave W	50.6	54.6	4.0	No
3	3164 Steeles Ave W	51.6	55.1	3.5	No
4	3156 Steeles Ave W	52.7	55.6	2.9	No

Figure 2: Noise Assessment Results



Appendix A

Existing ATR Counts

Class/Volume Report Graph

HI-Star ID: 61B2D
 Street: REG. RD. #8 - EB
 State: ON
 City: Halton Region
 Area: btwn Industrial Dr & First Ln

Begin: 2019-10-22 12:00 AM
 Lane: EB
 Oper: MD
 Posted: 60
 AADT Factor: 1

End: 2019-10-23 12:00 AM
 Hours: 24:00
 Period: 15
 Raw Count: 4556
 AADT Count: 4556

NC300 - Metres	0.0 to 4.9	5.0 to 8.4	8.5 to 9.9	10.0 to 12.9	13.0 to 15.9	16.0 to 18.9	19.0 to 22.4	22.5 >
2019-10-22 [12:00 AM-12:15 AM]	5	1	4	0	0	0	0	0
2019-10-22 [12:15 AM-12:30 AM]	4	1	2	1	0	0	0	0
2019-10-22 [12:30 AM-12:45 AM]	4	2	2	0	0	0	0	0
2019-10-22 [12:45 AM-01:00 AM]	0	0	0	0	0	0	0	0
	13	4	8	1	0	0	0	0
2019-10-22 [01:00 AM-01:15 AM]	5	1	2	1	0	1	0	0
2019-10-22 [01:15 AM-01:30 AM]	4	2	1	1	0	0	0	0
2019-10-22 [01:30 AM-01:45 AM]	4	2	0	0	0	0	1	1
2019-10-22 [01:45 AM-02:00 AM]	2	2	0	0	0	0	0	0
	15	7	3	2	0	1	0	1
2019-10-22 [02:00 AM-02:15 AM]	2	0	1	1	0	0	0	0
2019-10-22 [02:15 AM-02:30 AM]	3	1	2	0	0	0	0	0
2019-10-22 [02:30 AM-02:45 AM]	0	0	0	0	0	0	0	0
2019-10-22 [02:45 AM-03:00 AM]	0	0	0	0	0	0	0	0
	5	1	3	1	0	0	0	0
2019-10-22 [03:00 AM-03:15 AM]	0	0	0	0	0	0	0	0
2019-10-22 [03:15 AM-03:30 AM]	1	0	1	0	0	0	0	0
2019-10-22 [03:30 AM-03:45 AM]	7	2	4	0	1	0	0	0
2019-10-22 [03:45 AM-04:00 AM]	5	0	4	0	0	0	1	0
	13	2	9	0	1	0	0	1
2019-10-22 [04:00 AM-04:15 AM]	1	0	0	0	0	0	0	1
2019-10-22 [04:15 AM-04:30 AM]	4	2	2	0	0	0	0	0
2019-10-22 [04:30 AM-04:45 AM]	7	2	5	0	0	0	0	0
2019-10-22 [04:45 AM-05:00 AM]	15	5	8	2	0	0	0	0
	27	9	15	2	0	0	0	1
2019-10-22 [05:00 AM-05:15 AM]	9	3	6	0	0	0	0	0
2019-10-22 [05:15 AM-05:30 AM]	16	4	10	0	1	1	0	0
2019-10-22 [05:30 AM-05:45 AM]	21	5	15	0	1	0	0	0
2019-10-22 [05:45 AM-06:00 AM]	45	13	25	2	2	0	1	1
	91	25	56	2	4	1	1	1
2019-10-22 [06:00 AM-06:15 AM]	28	5	20	1	1	1	0	0
2019-10-22 [06:15 AM-06:30 AM]	29	5	20	1	1	1	0	1
2019-10-22 [06:30 AM-06:45 AM]	71	17	48	3	2	1	0	0
2019-10-22 [06:45 AM-07:00 AM]	74	18	45	3	4	1	1	0
	202	45	133	8	8	4	1	1
2019-10-22 [07:00 AM-07:15 AM]	59	23	30	2	2	0	1	1
2019-10-22 [07:15 AM-07:30 AM]	92	28	53	2	1	1	0	3
2019-10-22 [07:30 AM-07:45 AM]	112	40	50	5	4	5	2	4
2019-10-22 [07:45 AM-08:00 AM]	147	45	75	6	9	4	1	5
	410	136	208	15	16	10	4	13
2019-10-22 [08:00 AM-08:15 AM]	179	59	97	8	6	1	2	6
2019-10-22 [08:15 AM-08:30 AM]	179	74	90	5	3	1	2	2

2019-10-22 [08:30 AM-08:45 AM]	154	46	88	8	4	2	1	1	3
2019-10-22 [08:45 AM-09:00 AM]	105	31	54	4	9	1	1	0	5
	617	210	329	25	22	5	6	3	16
2019-10-22 [09:00 AM-09:15 AM]	88	29	45	2	7	0	0	1	4
2019-10-22 [09:15 AM-09:30 AM]	74	20	37	3	5	1	0	2	4
2019-10-22 [09:30 AM-09:45 AM]	71	19	45	2	2	1	0	0	2
2019-10-22 [09:45 AM-10:00 AM]	51	19	25	1	3	0	0	1	2
	284	87	152	8	17	2	0	4	12
2019-10-22 [10:00 AM-10:15 AM]	56	13	33	0	1	2	0	1	6
2019-10-22 [10:15 AM-10:30 AM]	53	16	24	5	2	4	0	0	2
2019-10-22 [10:30 AM-10:45 AM]	56	10	27	6	7	0	1	2	2
2019-10-22 [10:45 AM-11:00 AM]	57	16	30	3	3	0	0	3	1
	222	55	114	14	13	6	1	6	11
2019-10-22 [11:00 AM-11:15 AM]	57	16	34	3	2	0	1	1	0
2019-10-22 [11:15 AM-11:30 AM]	45	9	27	1	4	1	0	1	1
2019-10-22 [11:30 AM-11:45 AM]	47	16	29	0	1	0	0	0	1
2019-10-22 [11:45 AM-12:00 PM]	65	14	35	4	4	2	2	2	2
	214	55	125	8	11	3	3	4	4
2019-10-22 [12:00 PM-12:15 PM]	46	11	26	2	3	1	0	0	3
2019-10-22 [12:15 PM-12:30 PM]	60	14	34	3	4	0	2	2	1
2019-10-22 [12:30 PM-12:45 PM]	64	12	44	3	1	1	0	0	3
2019-10-22 [12:45 PM-01:00 PM]	63	15	39	2	3	0	1	1	2
	233	52	143	10	11	2	3	3	9
2019-10-22 [01:00 PM-01:15 PM]	59	18	32	3	3	2	1	0	0
2019-10-22 [01:15 PM-01:30 PM]	63	18	35	3	4	1	0	0	2
2019-10-22 [01:30 PM-01:45 PM]	62	16	37	2	4	0	2	1	0
2019-10-22 [01:45 PM-02:00 PM]	51	12	29	3	3	2	0	1	1
	235	64	133	11	14	5	3	2	3
2019-10-22 [02:00 PM-02:15 PM]	69	22	42	1	2	2	0	0	0
2019-10-22 [02:15 PM-02:30 PM]	57	21	29	1	2	1	1	0	2
2019-10-22 [02:30 PM-02:45 PM]	79	15	49	7	0	2	1	3	2
2019-10-22 [02:45 PM-03:00 PM]	65	14	39	4	5	3	0	0	0
	270	72	159	13	9	8	2	3	4
2019-10-22 [03:00 PM-03:15 PM]	58	12	35	2	2	1	1	2	2
2019-10-22 [03:15 PM-03:30 PM]	71	25	37	0	5	1	0	0	3
2019-10-22 [03:30 PM-03:45 PM]	51	15	26	4	1	1	1	1	2
2019-10-22 [03:45 PM-04:00 PM]	72	26	35	4	3	1	0	1	2
	252	78	133	10	11	4	2	4	9
2019-10-22 [04:00 PM-04:15 PM]	75	22	43	3	0	0	1	0	5
2019-10-22 [04:15 PM-04:30 PM]	66	17	32	6	4	2	2	1	2
2019-10-22 [04:30 PM-04:45 PM]	91	24	54	4	3	0	1	3	2
2019-10-22 [04:45 PM-05:00 PM]	64	22	32	3	2	2	2	0	1
	296	85	161	16	9	4	6	4	10
2019-10-22 [05:00 PM-05:15 PM]	107	26	63	5	3	1	2	1	5
2019-10-22 [05:15 PM-05:30 PM]	72	22	44	1	2	0	1	0	2
2019-10-22 [05:30 PM-05:45 PM]	68	19	39	5	2	0	2	0	1
2019-10-22 [05:45 PM-06:00 PM]	85	25	50	5	4	0	1	0	0
	332	92	196	16	11	1	6	1	8
2019-10-22 [06:00 PM-06:15 PM]	149	61	73	5	4	0	3	0	2
2019-10-22 [06:15 PM-06:30 PM]	97	28	55	3	3	5	0	1	2
2019-10-22 [06:30 PM-06:45 PM]	59	17	31	1	3	2	0	1	1

2019-10-22	[06:45 PM-07:00 PM]	73	26	38	6	1	0	0	1	0	
		378	132	197	15	11	7	3	3	5	
2019-10-22	[07:00 PM-07:15 PM]	55	23	29	1	1	1	0	0	0	
2019-10-22	[07:15 PM-07:30 PM]	41	12	24	2	0	2	0	0	1	
2019-10-22	[07:30 PM-07:45 PM]	29	9	14	3	3	0	0	0	0	
2019-10-22	[07:45 PM-08:00 PM]	42	16	20	2	2	1	0	1	0	
		167	60	87	8	6	4	0	1	1	
2019-10-22	[08:00 PM-08:15 PM]	26	10	13	1	1	1	0	0	0	
2019-10-22	[08:15 PM-08:30 PM]	23	4	18	0	0	0	0	1	0	
2019-10-22	[08:30 PM-08:45 PM]	23	8	14	0	0	0	0	0	1	
2019-10-22	[08:45 PM-09:00 PM]	17	5	5	2	1	0	0	1	2	
		89	27	50	3	2	1	0	2	3	
2019-10-22	[09:00 PM-09:15 PM]	25	8	16	1	0	0	0	0	0	
2019-10-22	[09:15 PM-09:30 PM]	18	6	10	0	0	2	0	0	0	
2019-10-22	[09:30 PM-09:45 PM]	13	4	8	0	1	0	0	0	0	
2019-10-22	[09:45 PM-10:00 PM]	20	9	8	1	1	0	1	0	0	
		76	27	42	2	2	2	1	0	0	
2019-10-22	[10:00 PM-10:15 PM]	17	7	8	1	1	0	0	0	0	
2019-10-22	[10:15 PM-10:30 PM]	13	3	8	1	0	0	0	0	0	
2019-10-22	[10:30 PM-10:45 PM]	29	9	15	0	2	0	1	1	0	
2019-10-22	[10:45 PM-11:00 PM]	13	4	7	0	1	0	0	0	1	
		72	23	38	2	4	0	1	1	1	
2019-10-22	[11:00 PM-11:15 PM]	15	4	11	0	0	0	0	0	0	
2019-10-22	[11:15 PM-11:30 PM]	13	2	10	0	0	0	0	0	0	
2019-10-22	[11:30 PM-11:45 PM]	8	1	6	0	0	0	0	1	0	
2019-10-22	[11:45 PM-12:00 AM]	7	0	3	0	1	0	1	1	1	
		43	7	30	0	1	0	1	2	1	
Daily Totals:		4556	1355	2524	192	183	70	44	49	114	
Total Counted:		4556									
Total Classified:		4531	4556	1355	2524	192	183	70	44	49	114
Total Unclassified:		25									
Report Percentages:			29.91%	55.71%	4.24%	4.04%	1.54%	0.97%	1.08%	2.52%	
Peak Time: (AM):	2019-10-22 [08:00 AM-08:15 AM]		Peak Count:		179						
Peak Time: (PM):	2019-10-22 [06:00 PM-06:15 PM]		Peak Count:		149						
			30%	55%	4%	4%	2%	1%	1%	3%	
			85%		8%			6%			
			Auto		M Truck			H Truck			

Class/Volume Report Graph

HI-Star ID: 62F2B
 Street: REG. RD. #8 - WB
 State: ON
 City: Halton Region
 Area: btwn Industrial Dr & First Ln

Begin: 2019-10-22 12:00 AM
 Lane: WB
 Oper: MD
 Posted: 60
 AADT Factor: 1

End: 2019-10-23 12:00 AM
 Hours: 24:00
 Period: 15
 Raw Count: 5536
 AADT Count: 5536

NC300 - Metres	0.0 to 4.9	5.0 to 8.4	8.5 to 9.9	10.0 to 12.4	12.5 to 15.9	16.0 to 18.4	18.5 to 22.4	22.5 >
2019-10-22 [12:00 AM-12:15 AM]	7	3	4	0	0	0	0	0
2019-10-22 [12:15 AM-12:30 AM]	10	1	9	0	0	0	0	0
2019-10-22 [12:30 AM-12:45 AM]	8	1	4	1	1	0	0	0
2019-10-22 [12:45 AM-01:00 AM]	3	1	2	0	0	0	0	0
	28	6	19	1	1	0	0	0
2019-10-22 [01:00 AM-01:15 AM]	4	0	4	0	0	0	0	0
2019-10-22 [01:15 AM-01:30 AM]	6	3	3	0	0	0	0	0
2019-10-22 [01:30 AM-01:45 AM]	3	1	0	0	0	1	0	0
2019-10-22 [01:45 AM-02:00 AM]	5	2	3	0	0	0	0	0
	18	6	10	0	0	1	0	0
2019-10-22 [02:00 AM-02:15 AM]	4	1	2	0	0	0	0	0
2019-10-22 [02:15 AM-02:30 AM]	6	4	2	0	0	0	0	0
2019-10-22 [02:30 AM-02:45 AM]	4	2	1	0	1	0	0	0
2019-10-22 [02:45 AM-03:00 AM]	3	0	2	0	0	0	1	0
	17	7	7	0	1	0	1	0
2019-10-22 [03:00 AM-03:15 AM]	4	1	3	0	0	0	0	0
2019-10-22 [03:15 AM-03:30 AM]	2	1	1	0	0	0	0	0
2019-10-22 [03:30 AM-03:45 AM]	2	1	1	0	0	0	0	0
2019-10-22 [03:45 AM-04:00 AM]	3	1	1	0	0	0	0	0
	11	4	6	0	0	0	0	0
2019-10-22 [04:00 AM-04:15 AM]	3	0	2	1	0	0	0	0
2019-10-22 [04:15 AM-04:30 AM]	8	2	2	0	0	1	2	1
2019-10-22 [04:30 AM-04:45 AM]	13	4	6	1	1	0	0	1
2019-10-22 [04:45 AM-05:00 AM]	10	4	5	0	0	0	1	0
	34	10	15	2	1	1	2	1
2019-10-22 [05:00 AM-05:15 AM]	12	1	7	1	2	0	0	1
2019-10-22 [05:15 AM-05:30 AM]	10	4	3	1	1	0	0	1
2019-10-22 [05:30 AM-05:45 AM]	20	6	12	1	0	0	0	0
2019-10-22 [05:45 AM-06:00 AM]	33	17	12	1	1	0	1	0
	75	28	34	4	4	0	1	2
2019-10-22 [06:00 AM-06:15 AM]	28	7	18	2	1	0	0	0
2019-10-22 [06:15 AM-06:30 AM]	23	7	14	0	2	0	0	0
2019-10-22 [06:30 AM-06:45 AM]	48	11	25	5	1	1	1	0
2019-10-22 [06:45 AM-07:00 AM]	59	24	28	4	2	0	0	0
	158	49	85	11	6	1	1	1
2019-10-22 [07:00 AM-07:15 AM]	69	19	39	2	3	3	0	1
2019-10-22 [07:15 AM-07:30 AM]	69	22	39	3	3	2	0	0
2019-10-22 [07:30 AM-07:45 AM]	53	9	33	5	3	1	1	0
2019-10-22 [07:45 AM-08:00 AM]	68	24	36	3	4	0	1	0
	259	74	147	13	13	6	2	1
2019-10-22 [08:00 AM-08:15 AM]	77	20	38	3	8	3	3	0
2019-10-22 [08:15 AM-08:30 AM]	80	26	43	2	2	3	0	1
2019-10-22 [08:30 AM-08:45 AM]	80	23	47	2	2	2	2	1

2019-10-22 [08:45 AM-09:00 AM]	64	23	32	4	1	0	2	0	1
	301	92	160	11	13	8	7	2	3
2019-10-22 [09:00 AM-09:15 AM]	68	12	40	5	4	3	2	1	1
2019-10-22 [09:15 AM-09:30 AM]	46	10	23	4	6	0	1	1	0
2019-10-22 [09:30 AM-09:45 AM]	47	10	27	5	0	1	1	0	2
2019-10-22 [09:45 AM-10:00 AM]	52	11	33	4	0	2	0	0	0
	213	43	123	18	10	6	4	2	3
2019-10-22 [10:00 AM-10:15 AM]	49	11	32	0	2	1	0	2	0
2019-10-22 [10:15 AM-10:30 AM]	48	8	32	2	4	1	0	0	1
2019-10-22 [10:30 AM-10:45 AM]	66	10	42	4	4	5	0	0	0
2019-10-22 [10:45 AM-11:00 AM]	61	13	42	0	2	1	1	0	1
	224	42	148	6	12	8	1	2	2
2019-10-22 [11:00 AM-11:15 AM]	75	17	44	4	7	2	0	1	0
2019-10-22 [11:15 AM-11:30 AM]	54	15	33	5	1	0	0	0	0
2019-10-22 [11:30 AM-11:45 AM]	57	15	35	1	3	2	1	0	0
2019-10-22 [11:45 AM-12:00 PM]	74	19	42	6	3	1	0	1	1
	260	66	154	16	14	5	1	2	1
2019-10-22 [12:00 PM-12:15 PM]	81	27	42	3	2	2	0	1	2
2019-10-22 [12:15 PM-12:30 PM]	62	10	39	3	7	1	0	0	0
2019-10-22 [12:30 PM-12:45 PM]	66	21	40	1	1	0	0	0	0
2019-10-22 [12:45 PM-01:00 PM]	74	20	40	5	4	1	0	1	2
	283	78	161	12	14	4	0	2	4
2019-10-22 [01:00 PM-01:15 PM]	81	28	46	3	3	0	0	0	0
2019-10-22 [01:15 PM-01:30 PM]	87	20	58	2	4	0	0	0	2
2019-10-22 [01:30 PM-01:45 PM]	66	18	42	1	2	0	1	0	1
2019-10-22 [01:45 PM-02:00 PM]	93	21	60	4	2	3	0	0	1
	327	87	206	10	11	3	1	0	4
2019-10-22 [02:00 PM-02:15 PM]	86	16	64	3	1	2	0	0	0
2019-10-22 [02:15 PM-02:30 PM]	86	21	58	3	3	1	0	0	0
2019-10-22 [02:30 PM-02:45 PM]	104	32	61	3	4	0	1	0	1
2019-10-22 [02:45 PM-03:00 PM]	86	26	51	3	5	0	0	0	0
	362	95	234	12	13	3	1	0	1
2019-10-22 [03:00 PM-03:15 PM]	96	17	67	5	4	2	0	1	0
2019-10-22 [03:15 PM-03:30 PM]	110	19	79	3	5	1	0	1	1
2019-10-22 [03:30 PM-03:45 PM]	127	32	79	11	1	0	0	1	1
2019-10-22 [03:45 PM-04:00 PM]	129	33	80	11	2	1	1	0	0
	462	101	305	30	12	4	1	3	2
2019-10-22 [04:00 PM-04:15 PM]	161	47	101	4	6	0	2	0	0
2019-10-22 [04:15 PM-04:30 PM]	154	42	104	3	1	3	0	0	0
2019-10-22 [04:30 PM-04:45 PM]	149	30	106	5	3	3	0	0	0
2019-10-22 [04:45 PM-05:00 PM]	192	67	115	5	1	2	0	0	0
	656	186	426	17	11	8	2	0	0
2019-10-22 [05:00 PM-05:15 PM]	179	63	108	1	3	0	3	1	0
2019-10-22 [05:15 PM-05:30 PM]	175	52	111	2	3	2	0	0	0
2019-10-22 [05:30 PM-05:45 PM]	145	40	100	0	4	0	0	0	0
2019-10-22 [05:45 PM-06:00 PM]	135	38	87	4	4	1	0	0	0
	634	193	406	7	14	3	3	1	0
2019-10-22 [06:00 PM-06:15 PM]	141	46	88	0	2	1	0	0	0
2019-10-22 [06:15 PM-06:30 PM]	108	27	72	2	3	0	0	0	1
2019-10-22 [06:30 PM-06:45 PM]	106	28	71	3	2	0	0	0	1
2019-10-22 [06:45 PM-07:00 PM]	111	35	70	3	1	1	1	0	0
	466	136	301	8	8	2	1	0	2

2019-10-22 [07:00 PM-07:15 PM]	81	18	59	3	1	0	0	0	0
2019-10-22 [07:15 PM-07:30 PM]	69	13	51	3	1	0	0	0	1
2019-10-22 [07:30 PM-07:45 PM]	63	18	38	2	3	1	0	0	0
2019-10-22 [07:45 PM-08:00 PM]	53	26	26	1	0	0	0	0	0
	266	75	174	9	5	1	0	0	1
2019-10-22 [08:00 PM-08:15 PM]	60	17	42	0	1	0	0	0	0
2019-10-22 [08:15 PM-08:30 PM]	58	5	48	3	2	0	0	0	0
2019-10-22 [08:30 PM-08:45 PM]	37	12	22	1	1	0	0	0	0
2019-10-22 [08:45 PM-09:00 PM]	47	11	31	1	1	0	0	0	1
	202	45	143	5	5	0	0	0	1
2019-10-22 [09:00 PM-09:15 PM]	27	5	20	1	0	0	0	0	0
2019-10-22 [09:15 PM-09:30 PM]	28	5	22	0	0	0	0	0	0
2019-10-22 [09:30 PM-09:45 PM]	29	8	17	2	1	0	0	0	0
2019-10-22 [09:45 PM-10:00 PM]	29	8	18	2	0	0	0	0	0
	113	26	77	5	1	0	0	0	0
2019-10-22 [10:00 PM-10:15 PM]	37	7	28	1	0	0	0	0	1
2019-10-22 [10:15 PM-10:30 PM]	17	5	11	0	1	0	0	0	0
2019-10-22 [10:30 PM-10:45 PM]	26	9	15	1	1	0	0	0	0
2019-10-22 [10:45 PM-11:00 PM]	27	6	18	1	0	1	0	0	0
	107	27	72	3	2	1	0	0	1
2019-10-22 [11:00 PM-11:15 PM]	14	4	8	0	0	0	0	0	0
2019-10-22 [11:15 PM-11:30 PM]	19	8	10	1	0	0	0	0	0
2019-10-22 [11:30 PM-11:45 PM]	13	7	6	0	0	0	0	0	0
2019-10-22 [11:45 PM-12:00 AM]	14	3	10	0	0	0	0	1	0
	60	22	34	1	0	0	0	1	0
Daily Totals:	5536	1498	3447	201	171	65	28	22	26
Total Counted:	5536								
Total Classified:	5458	5536	1498	3447	201	171	65	28	22
Total Unclassified:	78								26
Report Percentages:		27.45%	63.16%	3.68%	3.13%	1.19%	0.51%	0.40%	0.48%
Peak Time: (AM):	2019-10-22 [08:15 AM-08:30 AM]	Peak Count:	80						
Peak Time: (PM):	2019-10-22 [04:45 PM-05:00 PM]	Peak Count:	192						
		91%		7%			2%		
		Auto		M Truck			H Truck		