Environmental Noise Feasibility Study

Argo Alloa BT

Proposed Mixed-Use Development

Town of Caledon

July 21, 2025
Project: 123-0368

Prepared for

Argo Alloa (BT) Corporation

Prepared by

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VALCOUSTICS
Canada Ltd.

Version History

Version #	Date	Comments
1.0	September 27, 2024	Final – Issued to Client
2.0	July 21, 2025	Update - based on revisions to draft plan of subdivision

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Environmental Noise Feasibility Study

Argo Alloa BT

Proposed Mixed-Use Development

Town of Caledon

EXECUTIVE SUMMARY

Valcoustics Canada Ltd. (VCL) previously prepared an Environmental Noise Feasibility Study, dated September 27, 2024, for the proposed mixed-use development in support of the Draft Plan of Subdivision application submission to the Town of Caledon. This updated study has been prepared to address revisions to the proposed Draft Plan of Subdivision. The calculations have also been updated using traffic volumes from the latest traffic study for the development.

The proposed development will consist of detached dwellings (Blocks 1 to 389), street townhouses (Blocks 390 to 407), rear lane townhouses (Blocks 408 to 413), and back-to-back townhouses (Block 414 to 417). The development will also have a stormwater management pond (Block 418), and environmental policy areas (Blocks 419 to 421), and residential reserve part blocks (Blocks 422 and 423) that will be combined with neighbouring developments to create future detached or townhouse dwelling blocks.

The transportation noise source with the potential for impact at the subject site is road traffic on Creditview Road and Black Horse Drive. There are no stationary noise sources in the vicinity with the potential for impact at the subject site.

To meet the noise guideline limits:

- The provision for adding air conditioning is required at:
  - Dwellings in proximity to Creditview Road (specifically, Blocks 35, 36, 411 to 414, and the residential reserve Block 422).
  - The first row of detached dwellings and townhouse blocks from Black Horse Drive (Blocks 1 to 16, 70 to 79, 102, 103, 141, 142, 159 to 169, 204, 342, 377 to 389, 390, 398, and 407).

See Figure 2 for specific locations.

- A 1.8 m high sound barrier is required at Block 36, the dwelling with the rear yard adjacent to Creditview Road. See Figure 2 for specific location.

- For all dwellings, exterior wall and window construction meeting the minimum non-acoustical requirements of the Ontario Building Code (OBC) will be sufficient to meet the indoor noise criteria.

1.0 INTRODUCTION

Valcoustics Canada Ltd. (VCL) previously prepared an Environmental Noise Feasibility Study, dated September 27, 2024, for the proposed mixed-use development in support of the Draft Plan of Subdivision application submission to the Town of Caledon. This updated study has been prepared to address revisions to the proposed Draft Plan of Subdivision. The calculations have also been updated using traffic volumes from the latest traffic study for the development.

The sound levels from the environmental noise sources have been predicted on site and compared to the applicable MECP, Region of Peel and Town of Caledon noise guideline limits. Where sound level excesses above these guideline limits occur, noise mitigation measures have been recommended.

1.1 THE SITE AND SURROUNDING AREA

The subject site is located within the Alloa Secondary Plan area in the Town of Caledon. The site is bounded by:

- Future residential development (part of the Alloa Secondary Plan), with Chinguacousy Road beyond, to the east;
- Future residential and mixed-use development (part of the Alloa Secondary Plan), with Mayfield Road beyond, to the south;
- Creditview Road, with future residential development (part of the Alloa Secondary Plan) beyond, to the west;
- Future residential development (part of the Alloa Secondary Plan) to the north.

The site is currently occupied by existing agricultural uses and associated single-family dwellings, as well as a woodlot at the northeast corner of the site and a water course along the south property line of the site. The agricultural uses (including silos and barns) and dwellings will be demolished as part of the future development. The woodlot and water course will be retained as part of the proposed development as environmental policy area (EPA) blocks.

Figure 1 shows a key plan.

This report was prepared using the Draft Plan of Subdivision, prepared by Glen Schnarr and Associates, dated June 17, 2025. The Draft Plan of Subdivision is included as Figure 2.

1.2 THE PROPOSED DEVELOPMENT

The main changes to the Draft Plan of Subdivision since the previous Noise Report are modifications to the alignment of Black Horse Drive and some of the internal roadways at the north end of the site, and modifications to the lot numbering. The overall site concept and dwellings types are similar to the previous plan.

The proposed development will consist of detached dwellings (Blocks 1 to 389), street townhouses (Blocks 390 to 407), rear lane townhouses (Blocks 408 to 413), and back-to-back townhouses (Block 414 to 417). The development will also have a stormwater management pond (Block 418), and environmental policy areas (Block 419-421), and residential reserve part blocks (Blocks 422 and 423) that will be combined with neighbouring developments to create future detached or townhouse dwelling blocks.

It is understood that all townhouse blocks and detached dwellings will be two storeys with a potential additional loft space.

The detached dwellings and the standard townhouses will be provided with grade-level rear yard outdoor amenity space. The rear lane and back-to-back townhouses will be provided with small private balconies or terraces, which will be less than 4 m in depth.

2.0 NOISE SOURCES

2.1 TRANSPORTATION SOURCES

There are road noise sources in the area that could impact the proposed residential development. There are no rail lines in the vicinity of the site. The site lies outside airport noise influence areas (i.e., areas at NEF/NEP 25 or higher). Thus, rail and aircraft noise were not considered further in this study.

2.1.1 Road Traffic

The roadways with the potential to impact the site are Creditview Road and the internal collector roadway, Black Horse Drive. Based on the Draft Plan, Black Horse Drive has as ROW width of 22 m, similar to the other internal collector roadways within the Alloa Secondary Plan. Although the traffic study shows that traffic volumes on this roadway are low, to be consistent with other parcels within the Secondary Plan, the impact of traffic noise along Black Horse Drive has been considered for this development. Other roadways are either far enough removed from the site, or are small/local roadways with smaller ROW widths and lower expected traffic volumes (such as McMinn Drive), and are not expected to have a significant noise impact. These roadways have therefore not been included in our analysis.

The road traffic data is discussed below and summarized in Table 1. Road traffic is included as Appendix A.

Future (year 2041) traffic volumes for Creditview Road and Black Horse Drive were obtained from the Traffic Impact Study, prepared by C.F. Crozier & Associates Inc (Reference 6). The street corresponding to Black Horse Drive in the TIS is Street F.

The traffic volumes were provided in the form of future peak hour turning movement count (TMC) data. The 24-hour traffic volumes were calculated by multiplying the higher of the AM or PM peak hour volume by 10.

For Creditview Road, year 2041 volume was projected to the year 2045 using a growth rate of 2% compounded annually. This growth rate is consistent with the rate used in the TIS for Creditview Road.

The TIS indicated that any traffic growth on the internal collectors would be attributable to the planned buildout of the Secondary Plan area, which was already captured in the calculations. The TIS did not apply any growth to the collector roads in the study; thus, to be consistent with the TIS, the year 2041 traffic volumes for Black Horse Drive were also applied to the year 2045 condition.

Current (year 2024) TMCs showing the traffic volumes and truck percentages were also provided by the traffic consultant. The existing truck percentages on the existing roadways in the vicinity were used to estimate the future truck percentages on the new roadways within the site. The 2024 TMC data indicated that approximately 5% of the total vehicle volume on the existing roadways on the south side of Mayfield Road consisted of trucks. Therefore, Creditview Road and Black Horse Drive were assumed to have a future total truck percentage of 5%. It is noted that the current truck volumes mostly consist of buses (medium trucks). However, to be conservative, the future medium and heavy truck percentages on the internal roadways were assumed to be 60% and 40% of the total truck volume, respectively.

The day/night splits for all roadways were assumed to be 90%/10%, as is typical for well travelled roadways. The traffic consultant indicated that the speed limits on the future internal roadways are expected to be 50 km/h for collector roadways. The speed limit on Creditview Road is 60 km/h.

TABLE 1 ROAD TRAFFIC DATA

Roadway	Year	24-Hour Traffic Volume(1)	% Trucks(2)		Speed Limit (kph)(3)	Day/Night Split (%)
			Medium	Heavy		
Creditview Road	2041 (2045)	5 450 (5 899)	3	2	60	90/10
Black Horse Drive	2041 (2045)	1 350 (1 350)	3	2	50	90/10

Notes:

(1) The year 2044 24-hour traffic volumes for both roadways were calculated from the 2041 peak hour TMCs provided by C.F. Crozier & Associates Inc. The peak hour volumes were converted to 24-hour volumes by multiplying the higher of the am or pm peak hour volume by 10. The volumes on Creditview Road were projected to the year 2045 at a growth rate of 2%, compounded annually. The volumes on Black Horse Drive, an internal collector roadway, were not projected as the TIS indicates that no further growth is expected (i.e., the 2041 volumes also represent the year 2045 condition). The traffic volumes shown in brackets represent the year 2045 volumes.

(2) Truck percentages were calculated from the existing (year 2024) turning movement counts. Speed limits were provided by C.F. Crozier & Associates Inc. The day/night splits were assumed.

(3) Vehicle speeds 10 kph higher than the indicated speed limit were used in the analysis, per Town of Caledon guidelines.

2.2 STATIONARY SOURCES

There are no stationary noise facilities within 1 km of the subject lands. The closest stationary sources are the Alloa Reservoir and Pumping Station and Alloa Public School, located approximately 1.3 km southwest of the subject site. It is understood that these facilities will be retained as part of the Secondary Plan. The main noise sources associated with these facilities are expected to be an emergency generator at the pumping station and HVAC units at the school. Due to the distance separation, as well as screening that will be provided by the intervening

residential development that will be built as part of the Secondary Plan, noise from these facilities is not anticipated to have a significant noise impact at the subject site. Thus, these facilities have not been considered further in the assessment.

Future mixed-use and commercial/industrial blocks are planned along the north side of Mayfield Road in land parcels south of the subject site, as part of the Alloa Secondary Plan. These mixed use and commercial blocks must be designed to meet the MECP stationary noise level limits of the NPC-300 guidelines at the surrounding noise sensitive receptors, including at the subject site. Thus, these future mixed-use and commercial/industrial blocks have not been considered further in the assessment.

3.0 ENVIRONMENTAL NOISE GUIDELINES

3.1 MECP PUBLICATION NPC-300

3.1.1 Transportation Sources

The applicable noise guidelines for new residential development are those in MECP Publication NPC-300, *"Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning"*.

The environmental noise guidelines of the MECP (Publication NPC-300) are discussed briefly below and summarized in Appendix B.

3.1.1.1 Architectural Elements

In the daytime (0700 to 2300), the indoor criterion for road noise is $L_{eq\ Day}$(1) of 45 dBA for sensitive spaces such as living/dining rooms, dens and bedrooms. At night, the indoor criterion for road noise is $L_{eq\ Night}$(2) of 45 dBA for sensitive spaces such as living/dining rooms and dens and 40 dBA for bedrooms.

The architectural design of the building envelope (walls, windows, etc.) must provide adequate sound isolation to achieve the above indoor sound level limits applying the outdoor sound level predicted at the facades.

3.1.1.2 Ventilation

When the daytime sound level ($L_{eq\ Day}$) at the exterior face of a noise sensitive window is greater than 65 dBA, means must be provided so that windows can be kept closed for noise control purposes and central air conditioning is required. For daytime sound levels between 56 dBA and 65 dBA inclusive, there need only be the provision for adding air conditioning. A warning clause

(1) $L_{eq,\ Day}$ 16-hour energy equivalent sound level (0700-2300 hours).
(2) $L_{eq,\ Night}$ 8-hour energy equivalent sound level (0700-2300 hours).

advising the occupant of the potential interference with some activities is also required. At nighttime, air conditioning is required when the sound level exceeds 60 dBA ($L_{eq\ Night}$) at a noise sensitive window (provision for adding air conditioning is required when the sound level is greater than 50 dBA).

3.1.1.3 Outdoors

For OLA's, the guideline objective is 55 dBA $L_{eq\ Day}$, with an excess not exceeding 5 dBA considered acceptable if it is not feasible to achieve the 55 dBA objective for technical, economic or administrative reasons, provided warning clauses are registered on title. Note, a balcony or elevated terrace is not considered an OLA unless it is:

- the only OLA for the occupant;
- at least 4 m in depth; and
- unenclosed

3.1.2 Region of Peel

The Region of Peel's noise guidelines are described in the "General Guidelines for the Preparation of Acoustical Reports in the Region of Peel" document (Reference 5). The Region of Peel noise guidelines are essentially the same as the MECP noise guidelines for transportation noise sources except that the nighttime sound level for triggering the air conditioning requirement is 1 dBA more stringent (i.e., less) than the sound level specified by the MECP; i.e., mandatory air conditioning for nighttime sound levels of 60 dBA or greater, and the provision for adding air conditioning for sound levels between 51 to 59 dBA inclusive.

The Peel guidelines also indicate a maximum desirable sound barrier height of 4.0 m (relative to the roadway centreline) with a maximum acoustic fence height of 2.4 m, although a height of no more than 2.0 m is preferred. To make up any additional height beyond that of the fence, a berm is to be used.

3.1.3 Town of Caledon

The Town of Caledon noise guidelines are described in the "Development Standards Manual" document (Reference 6). The Town of Caledon's general policy is not to accept any excess above the 55 dBA objective for OLA's. However, an excess may be acceptable if unreasonably high sound barriers are needed to meet the 55 dBA objective.

The Town's maximum acoustic fence height is 2.4 m. Higher barriers can be provided by using a combination of an acoustic fence and a berm. The maximum permitted sound barrier height according to the Town's Development Standards is 4.8 m (2.4 m fence atop a 2.4 m berm).

Road traffic noise levels are to be calculated using a minimum 20-year traffic forecast and a speed of 10 kph over the posted speed limit.

4.0 NOISE IMPACT ASSESSMENT

4.1 METHOD

Using the road traffic data in Table 1, the $L_{eq\ Day}$ and $L_{eq\ Night}$ were determined using STAMSON V5.04 – ORNAMENT, the computerized road traffic noise prediction models of the MECP.

As previously noted, all dwellings are expected to be 2 storeys, with a potential loft space. To be conservative, the daytime and nighttime sound levels at all building facades were assessed at a height of 7.5 m above grade, representing a loft-height plane of window (the worst-case location).

The daytime OLA sound levels at the grade level rear yard outdoor amenity areas were assessed at a height of 1.5 m above grade, 3 m from the midpoint of the rear dwelling facade.

See Figure 2 for the assessment receptor locations.

Inherent screening of each building face due to its orientation to the noise source as well as screening provided by the subject development itself was taken into account. To be conservative, screening from the future development, including all part blocks that will be combined with neighbouring parcels to create full blocks in the future, was not included.

4.2 RESULTS

At the building facades, the highest unmitigated daytime/nighttime sound levels of 60/54 dBA are predicted to occur at receptor R6 (Block 36), representing the dwellings to adjacent to Creditview Road.

The highest unmitigated daytime OLA sound level of 57 dBA is predicted to occur at receptor R8 (Block 36), representing the rear yard of the detached dwelling adjacent to Creditview Road.

Table 2 summarizes the unmitigated daytime and nighttime sound level predictions.

Appendix C contains a sample sound level calculation.

TABLE 2 PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS

Location[1]	Receptor[1]	Source	Distance (m)[2]	$L_{eq\ Day}$ (dBA)	$L_{eq\ Night}$ (dBA)
Block 103	R1 West Facade	Creditview Road	275	42	35
		Black Horse Drive	15	56	49
		TOTAL	**-**	**56**	**50**
	R2 North Facade	Creditview Road	275	42	36
		Black Horse Drive	15	53	46
		TOTAL	**-**	**53**	**47**
	R3 Rear Yard OLA	Creditview Road	280	41	-
		Black Horse Drive	20	52	-
		TOTAL	**-**	**52**	**-**

…/cont'd

TABLE 2 PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS (continued)

Location(1)	Receptor(1)	Source	Distance (m)(2)	$L_{eq\ Day}$ (dBA)	$L_{eq\ Night}$ (dBA)
Block 54	R4 West Facade	Creditview Road	94	**52**	**45**
	R5 Rear Yard OLA	Creditview Road	98	**49**	**-**
Block 36	R6 West Facade	Creditview Road	25	**60**	**54**
	R7 South Facade	Creditview Road	25	**57**	**51**
	R8 Rear Yard OLA	Creditview Road	30	**57**	**-**
Block 1	R9 East Facade	Black Horse Drive	13	**57**	**50**
	R10 South Facade	Creditview Road	258	42	36
		Black Horse Drive	13	54	47
		TOTAL	**-**	**54**	**48**
	R11 Rear Yard OLA	Creditview Road	247	**47**	**-**
Block 17	R12 North Facade	Black Horse Drive	26	**48**	**42**
Block 141	R13 Rear Yard OLA	Black Horse Drive	19	**52**	**-**
Block 414	R14 West Facade	Creditview Road	37	**58**	**51**

Notes:

(1) See Figure 2 for receptor locations.

(2) Distance indicated is from the centreline of the roadway to the facade or OLA.

4.3 NOISE ABATEMENT REQUIREMENTS

The noise control measures can generally be classified into two categories which are interrelated, but which can be treated separately for the most part:

a) The sound isolation performance of architectural elements to achieve the indoor noise guideline sound levels for transportation sources; and

b) design features to attenuate the sound levels in the OLA's.

Noise abatement requirements/recommendations are summarized in Table 3 and in the notes to Table 3.

4.3.1 Indoors

4.3.1.1 Architectural Requirements

The indoor noise guideline sound levels can be achieved by using appropriate construction for exterior walls, windows and doors.

Based on the predicted daytime and nighttime sound levels, exterior wall and window construction meeting the minimum non-acoustical requirements of the Ontario Building Code (OBC) will be sufficient to meet the MECP indoor noise criteria at all dwellings within the development.

4.3.1.2 Ventilation Requirements

The assessment shows that the provision for adding air conditioning is required at:

- Dwellings in proximity to Creditview Road (specifically, Blocks 35, 36, 411 to 414, and the residential reserve block 422).
- The first row of detached dwellings and townhouse blocks from Black Horse Drive (Blocks 1 to 16, 70 to 79, 102, 103, 141, 142, 159 to 169, 204, 342, 377 to 389, 390, 398, and 407).

See Figure 2 for the specific locations.

For detached dwellings and townhouse blocks, the provision for adding air conditioning typically takes the form of a ducted ventilation system suitably sized to permit the addition of central air conditioning by the occupant.

4.3.2 Outdoors

The unmitigated daytime OLA sound level at the rear yard adjacent to Creditview Road is predicted to exceed 55 dBA.

At this dwelling, Block 36, a 1.8 m high sound barrier will mitigate the daytime OLA sound levels to below the 55 dBA design objective and is recommended.

The sound barrier location is shown on Figure 2.

4.3.2.1 Notes about the sound barrier requirements

- It is understood that the rear lane and back-to-back townhouse units will not have grade-level outdoor amenity space. These units will have balconies and private terraces that are less than 4 m in depth, and would therefore not be considered OLA's under the MECP guidelines. Thus, sound barriers are not required for noise control purposes at these locations.
- Sound barriers must be of solid construction with no gaps, cracks or holes (except for small, localized openings required for water drainage) and must have a minimum surface weight of 20kg/m^2. A variety of materials are available, including concrete, masonry, glass, wood, specialty composite materials or a combination of the above.
- The sound barrier requirements were determined using flat topography. The sound barrier requirements will need be confirmed once a grading plan is available.

4.4 WARNING CLAUSES

Warning clauses are a tool to inform prospective owners/occupants of potential annoyance due to existing noise sources. Where the guideline sound level limits are exceeded, appropriate warning clauses should be registered on title or included in the development agreement that is registered on title. The warning clauses should also be included in agreements of Offers of Purchase and Sale and lease/rental agreements to make future occupants aware of the potential noise situation.

Table 3 and the notes to Table 3 summarize the warning clauses for the site.

TABLE 3 MINIMUM NOISE ABATEMENT MEASURES

Location[1]	Air Conditioning[2]	Exterior Wall	Exterior Window	Sound Barrier[1][3]	Warning Clauses[4]
Block 36	Provision for adding.	No special acoustical requirements.		1.8 m high at rear yard	A + B
Block 1 to 16, 35, 70 to 79, 102, 103, 141, 142, 159 to 169, 204, 342, 377 to 389, 390, 398, 407, 411 to 414; Residential Reserve Block 422	Provision for adding.	No special acoustical requirements.		Not required.	A + B
All other dwellings	No special acoustical requirements.				

Notes:

(1) See Figure 2.

(2) Where methods must be provided to allow windows to remain closed for noise control purposes, a commonly used technique is that of air conditioning. For detached dwellings and townhouse blocks, the provision for adding air conditioning typically takes the form of a ducted ventilation system suitably sized to permit the addition of central air conditioning by the occupant.

(3) Sound barriers must be of solid construction with no gaps cracks or holes, and must have a minimum surface density of 20 kg/m².

(4) Standard example warning clauses to be registered on title and be included in Offers of Purchase and Sale for designated lots:

A. "Purchases/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."

B. "This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."

(5) All exterior doors shall be fully weather-stripped.

5.0 CONCLUSIONS

With the incorporation of the recommended noise mitigation measures, the applicable Town of Caledon, Peel Region and MECP noise guidelines can be met and a suitable acoustical environment provided for the occupants.

The approvals and administrative procedures are available to ensure that the noise requirements are implemented.

6.0 REFERENCES

1. PC STAMSON 5.04, "Computer Program for Road Traffic Noise Assessment", Ontario Ministry of the Environment.
2. "Environmental Noise Assessment in Land-Use Planning 1987", Ontario Ministry of the Environment, February 1987, ISBN 0-7729-2804-5.
3. MECP Publication NPC-300, "Stationary and Transportation Sources – Approval and Planning" Ontario Ministry of the Environment, August 2013.
4. "General Guidelines for the Preparation of Acoustical Reports in the Region of Peel", Region of Peel. November 2012.
5. "Development Standards Manual, Version 5.0", Town of Caledon, 2019.
6. "Transportation Impact Study, Alloa Phase 1 Lands, Tertiary Plan, Town of Caledon, Region of Peel", C.F. Crozier & Associates Inc., December 2024.
7. "Environmental Noise Feasibility Study – Argo Allo BT", Valcoustics Canada, September 27, 2024.

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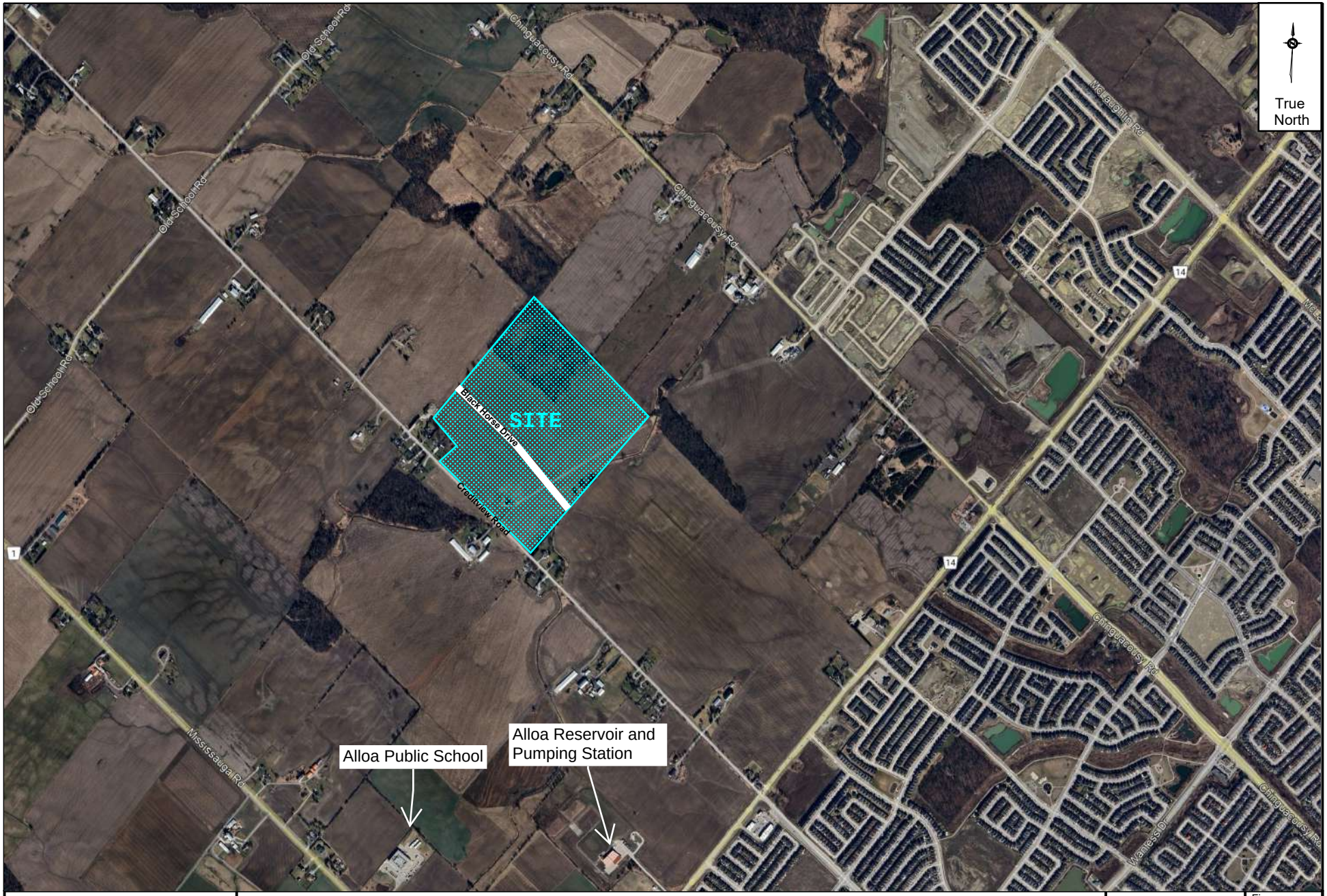
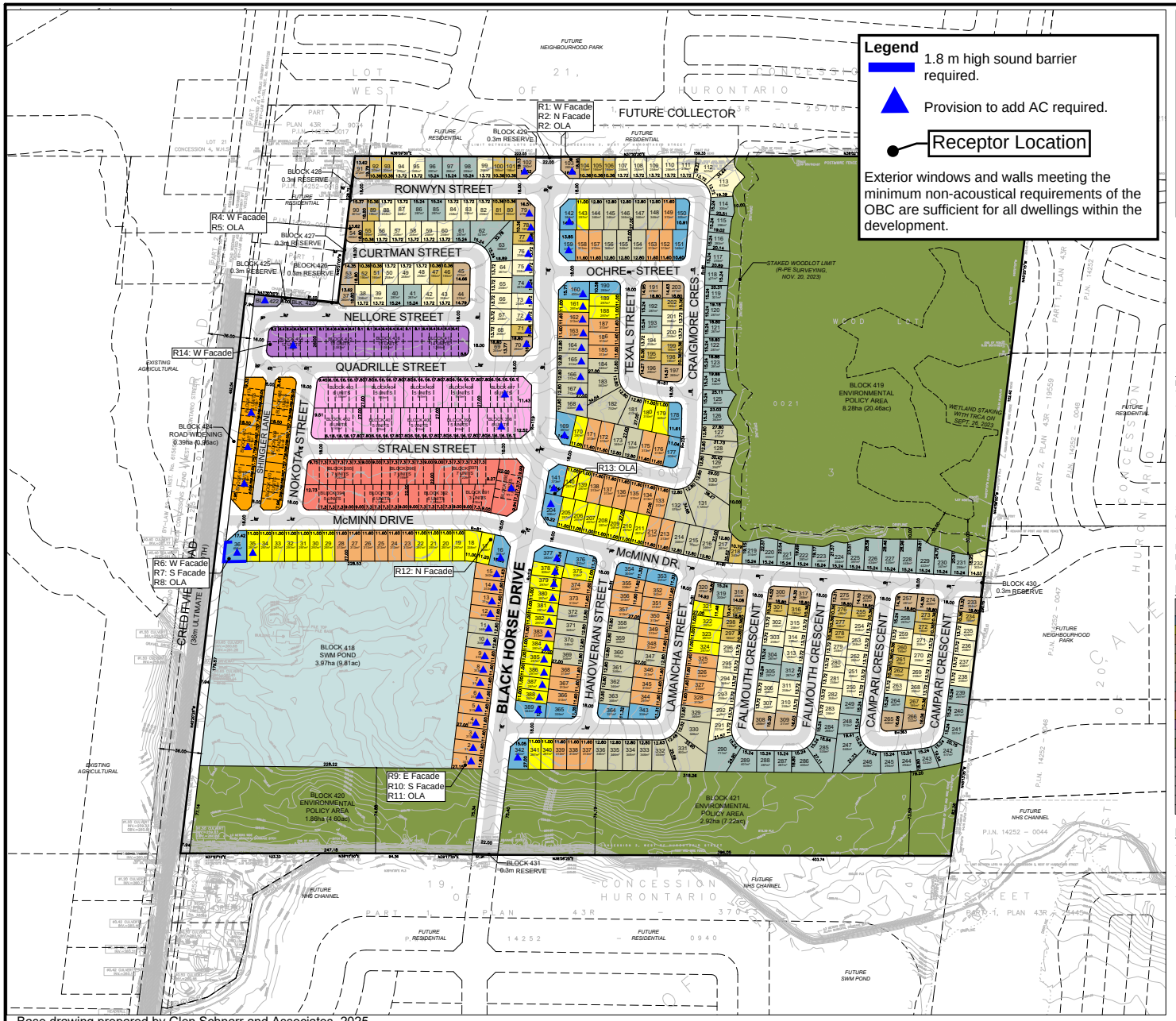
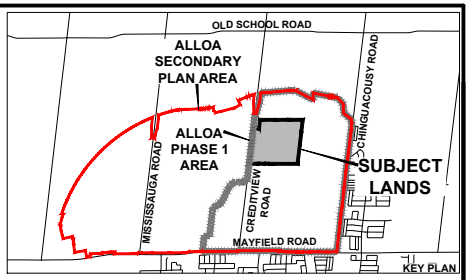
Alloa BT, Caledon - Noise v2_0.docx



VALCOUSTICS Canada Ltd. consulting acoustical engineers	Title: **Key Plan**	Date: **July 17, 2024**	Figure: **1**
	Project Name: **Argo Alloa BT, Caledon**	Project No.: **1230368.000**	





DRAFT PLAN OF SUBDIVISION
ARGO ALLOA (BT) CORPORATION
FILE # 21T-24013C

PART OF LOT 20, CONCESSION 3,
WEST OF HURONTARIO STREET
(GEOGRAPHIC TOWNSHIP OF CHINGUACOUSY)
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEEL

SURVEYORS CERTIFICATE

I HEREBY CERTIFY THAT THE BOUNDARIES OF THE LANDS TO BE SUBDIVIDED AS SHOWN ON THIS PLAN AND THEIR RELATIONSHIP TO ADJACENT LANDS ARE CORRECTLY AND ACCURATELY SHOWN.

SIGNED: _____ DATE: JULY 17, 2024

A. U. KUMARANAYAKE, O.L.S.
R-PE SURVEYING LTD.
643 CHRISLEA ROAD, SUITE 7
WOODBRIDGE ON, L4L 8A3
PHONE: (416) 635-5000

ADDITIONAL INFORMATION

(UNDER SECTION 51(17) OF THE PLANNING ACT) INFORMATION REQUIRED BY CLAUSES A,B,C,D,E,F,G,J & L ARE SHOWN ON THE DRAFT AND KEY PLANS.

H) MUNICIPAL AND PIPED WATER TO BE PROVIDED
I) SANDY LOAM AND CLAY LOAM
K) SANITARY AND STORM SEWERS TO BE PROVIDED

LAND USE SCHEDULE

LAND USE	LOTS / BLOCKS	AREA (ha)	AREA (ac)	UNITS	DENSITY (UPHA)
DETACHED - 10.40m (34')	1-389	0.77	1.90	22	28.57
DETACHED - 11.00m (36')		1.38	3.41	46	33.33
DETACHED - 11.60m (38')		2.05	5.07	65	31.71
DETACHED - 12.80m (42')		2.03	5.02	50	24.63
DETACHED - 10.36m (42') (18.8m DEPTH)		0.77	1.90	39	50.65
DETACHED - 13.72m (45') (18.8m DEPTH)		2.01	4.97	75	37.31
DETACHED - 14.00m (46') (18.8m DEPTH)		0.81	2.00	29	35.80
DETACHED - 15.24m (50') (18.8m DEPTH)		2.19	5.41	63	28.77
STREET TOWNHOUSE - 7.30m (24')	390-397	0.84	2.08	46	54.76
STREET TOWNHOUSE - 6.1m (20')	398-407	1.02	2.52	54	52.94
REAR LANE TOWNHOUSE - 6.05m (20')	408-413	0.42	1.04	33	78.57
BACK-TO-BACK TOWNHOUSE - 6.4m (21')	414-417	0.46	1.14	50	108.70
SWM POND	418	3.97	9.81		
ENVIRONMENTAL POLICY AREA	419-421	13.06	32.27		
RESIDENTIAL RESERVE	422,423	0.04	0.10		
ROAD WIDENING	424	0.39	0.96		
0.3m RESERVE	425-431	0.00	0.00		
8.0m LANEWAY R.O.W. (LENGTH: 125m)		0.10	0.25		
16.0m-18.0m LOCAL R.O.W. (LENGTH: 3,554m)		6.48	16.01		
22.0m LOCAL R.O.W. (LENGTH: 614m)		1.35	3.34		
TOTAL	431	40.14	99.19	572	38.81

NOTES

- McMINN DRIVE & CREDITVIEW ROAD DAYLIGHT TRIANGLE - 10.0m x 10.0m
- LOCAL TO COLLECTOR DAYLIGHT TRIANGLE - 7.5m x 7.5m
- LANEWAY TO LOCAL / COLLECTOR DAYLIGHT TRIANGLE - 3.0m x 3.0m
- LOCAL TO LOCAL DAYLIGHT RADII - 5.0m
- PAVEMENT ILLUSTRATION IS DIAGRAMMATIC
- ALL INTERSECTION ANGLES ARE 90° UNLESS OTHERWISE NOTED

SCALE: 1:1500
(24 x 36)
JUNE 17, 2025

ARGO DEVELOPMENT CORP

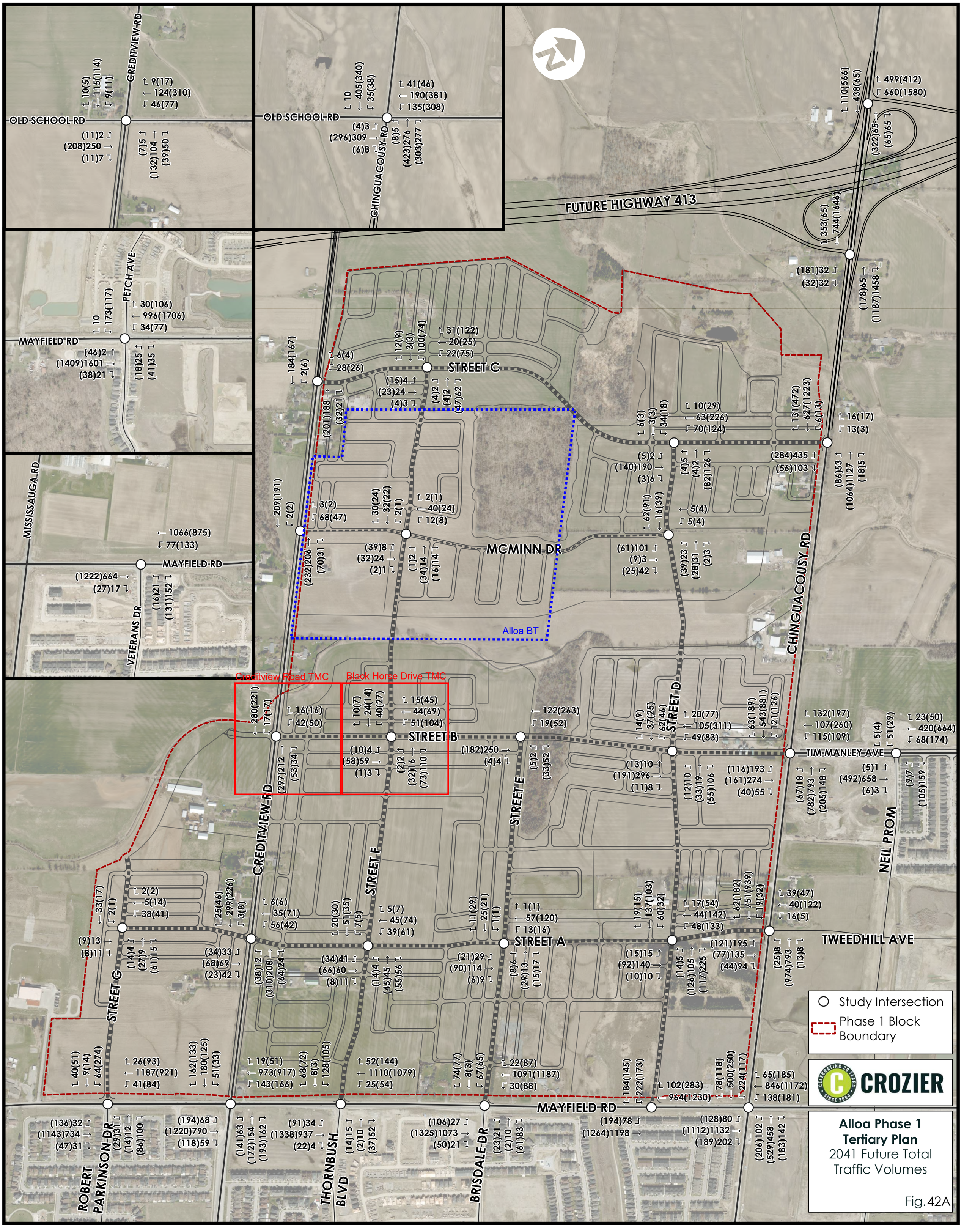
GSAI Glen Schnarr & Associates Inc.

Base drawing prepared by Glen Schnarr and Associates, 2025

VALCOUSTICS Canada Ltd.
consulting acoustical engineers

Title	Date	Figure
Draft Plan of Subdivision	**July 17, 2025**	**2**
Project Name: **Argo Alloa BT, Caledon**	Project No.: **1230368.000**	

APPENDIX A
TRAFFIC DATA CORRESPONDENCE


FUTURE HIGHWAY 413
CREDITVIEW RD
OLD SCHOOL RD
CHINGUACOUSY RD
PETCH AVE
MAYFIELD RD
MISSISSAUGA RD
VETERANS DR
STREET C
MCMINN DR
STREET B
STREET D
STREET E
STREET F
STREET G
STREET A
TIM MANLEY AVE
TWEEDHILL AVE
NEIL PROM
ROBERT PARKINSON DR
THORNBUSH BLVD
BRISDALE DR
Alloa BT
Creditview Road TMC
Black Horse Drive TMC
Study Intersection
Phase 1 Block Boundary
CROZIER
Alloa Phase 1
Tertiary Plan
2041 Future Total
Traffic Volumes
Fig. 42A

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & CREDITVIEW RD
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Turning Movement Count (9 . MAYFIELD RD & CREDITVIEW RD) CustID: 01420659

Start Time	N Approach CREDITVIEW RD						S Approach CREDITVIEW RD						W Approach MAYFIELD RD						E Approach MAYFIELD RD						Int. Total (15 min)	Int. Total (1 hr)
	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right S:E	Thru S:N	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	Left W:N	UTurn W:W	Peds W:	Approach Total	Right E:N	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total		
06:00:00	3	2	1	0	0	6	17	16	7	0	0	40	3	68	1	0	0	72	2	69	4	0	0	75	193	
06:15:00	3	13	1	0	0	17	14	12	8	0	0	34	5	61	6	0	0	72	0	79	7	0	0	86	209	
06:30:00	2	4	1	0	0	7	8	12	12	0	0	32	0	95	4	0	0	99	1	137	9	0	0	147	285	
06:45:00	3	17	0	0	0	20	20	14	12	0	0	46	4	71	1	0	0	76	0	109	8	0	0	117	259	946
07:00:00	6	15	1	0	0	22	16	19	8	0	1	43	6	114	8	0	0	128	1	106	12	0	0	119	312	1065
07:15:00	4	26	3	0	0	33	24	19	5	0	0	48	8	119	5	0	0	132	1	109	15	0	0	125	338	1194
07:30:00	3	32	2	0	0	37	21	20	12	0	0	53	4	124	5	0	0	133	1	104	23	0	0	128	351	1260
07:45:00	4	26	1	0	0	31	26	14	5	0	0	45	10	115	3	0	0	128	2	116	25	0	0	143	347	1348
08:00:00	7	30	1	0	0	38	28	30	12	0	0	70	13	124	4	0	0	141	0	140	23	0	0	163	412	1448
08:15:00	8	14	5	0	0	27	37	25	11	0	0	73	12	144	6	0	0	162	1	135	23	0	0	159	421	1531
08:30:00	7	17	0	0	0	24	34	20	15	0	0	69	9	116	7	0	0	132	0	119	20	0	0	139	364	1544
08:45:00	3	14	1	0	0	18	22	12	18	0	0	52	7	84	4	0	0	95	0	150	26	0	0	176	341	1538
09:00:00	3	4	3	0	0	10	22	15	21	0	0	58	4	136	6	0	0	146	0	153	17	0	0	170	384	1510
09:15:00	7	11	3	0	0	21	16	9	8	0	0	33	7	112	3	0	0	122	2	102	12	0	0	116	292	1381
09:30:00	1	7	1	0	0	9	24	13	11	0	0	48	5	89	2	0	0	96	0	92	22	0	0	114	267	1284
09:45:00	6	11	2	0	0	19	15	9	3	0	0	27	5	107	3	0	0	115	1	86	17	0	0	104	265	1208
BREAK																										
15:00:00	4	15	3	0	0	22	38	27	20	0	0	85	11	139	4	0	0	154	0	108	31	0	0	139	400	
15:15:00	0	14	2	0	0	16	27	20	15	0	0	62	12	146	4	0	0	162	3	121	32	0	0	156	396	
15:30:00	4	12	1	0	0	17	30	28	23	0	0	81	13	165	2	0	2	180	1	122	26	0	0	149	427	
15:45:00	12	29	2	0	0	43	25	22	18	0	1	65	21	164	7	0	2	192	3	112	25	0	1	140	440	1663
16:00:00	8	19	1	0	0	28	17	25	12	0	0	54	14	139	6	0	0	159	2	108	29	0	0	139	380	1643
16:15:00	3	34	2	0	0	39	32	28	15	0	0	75	9	128	2	0	0	139	1	104	32	0	0	137	390	1637
16:30:00	5	26	2	0	0	33	24	24	10	0	0	58	8	134	2	0	0	144	2	120	17	0	0	139	374	1584
16:45:00	8	24	4	0	0	36	28	17	14	0	2	59	12	140	5	0	0	157	0	94	31	0	0	125	377	1521
17:00:00	5	26	1	0	0	32	19	26	11	0	1	56	11	140	5	0	0	156	2	110	24	0	0	136	380	1521
17:15:00	4	30	2	0	0	36	32	18	11	0	0	61	10	148	7	0	0	165	3	102	31	0	0	136	398	1529
17:30:00	3	30	1	0	0	34	30	16	13	0	0	59	10	159	4	0	0	173	3	101	31	0	0	135	401	1556
17:45:00	2	24	2	0	0	28	26	14	9	0	0	49	12	144	1	0	0	157	2	101	41	0	0	144	378	1557
18:00:00	4	22	1	0	0	27	32	32	9	0	0	73	14	140	9	0	0	163	1	105	37	0	0	143	406	1583
18:15:00	6	32	1	0	0	39	28	14	12	0	0	54	7	155	2	0	0	164	4	102	31	0	0	137	394	1579
18:30:00	6	27	2	0	0	35	26	15	9	0	0	50	12	116	6	0	0	134	1	102	36	0	0	139	358	1536
18:45:00	7	12	3	0	0	22	36	26	7	0	1	69	13	114	3	0	0	130	1	84	31	0	0	116	337	1495
Grand Total	151	619	56	0	0	826	794	611	376	0	6	1781	291	3950	137	0	4	4378	41	3502	748	0	1	4291	**11276**	-
Approach%	18.3%	74.9%	6.8%	0%		-	44.6%	34.3%	21.1%	0%		-	6.6%	90.2%	3.1%	0%		-	1%	81.6%	17.4%	0%		-	**-**	-
Totals %	1.3%	5.5%	0.5%	0%		7.3%	7%	5.4%	3.3%	0%		15.8%	2.6%	35%	1.2%	0%		38.8%	0.4%	31.1%	6.6%	0%		38.1%	**-**	-
Heavy	4	14	6	0		-	40	15	32	0		-	21	256	4	0		-	2	249	37	0		-	**-**	-
Heavy %	2.6%	2.3%	10.7%	0%		-	5%	2.5%	8.5%	0%		-	7.2%	6.5%	2.9%	0%		-	4.9%	7.1%	4.9%	0%		-	**-**	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	**-**	-

Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)

Start Time	N Approach CREDITVIEW RD						S Approach CREDITVIEW RD						W Approach MAYFIELD RD						E Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	4	26	1	0	0	31	26	14	5	0	0	45	10	115	3	0	0	128	2	116	25	0	0	143	347
08:00:00	7	30	1	0	0	38	28	30	12	0	0	70	13	124	4	0	0	141	0	140	23	0	0	163	412
08:15:00	8	14	5	0	0	27	37	25	11	0	0	73	12	144	6	0	0	162	1	135	23	0	0	159	421
08:30:00	7	17	0	0	0	24	34	20	15	0	0	69	9	116	7	0	0	132	0	119	20	0	0	139	364
Grand Total	26	87	7	0	0	120	125	89	43	0	0	257	44	499	20	0	0	563	3	510	91	0	0	604	**1544**
Approach%	21.7%	72.5%	5.8%	0%		-	48.6%	34.6%	16.7%	0%		-	7.8%	88.6%	3.6%	0%		-	0.5%	84.4%	15.1%	0%		-	**-**
Totals %	1.7%	5.6%	0.5%	0%		7.8%	8.1%	5.8%	2.8%	0%		16.6%	2.8%	32.3%	1.3%	0%		36.5%	0.2%	33%	5.9%	0%		39.1%	**-**
PHF	0.81	0.73	0.35	0		0.79	0.84	0.74	0.72	0		0.88	0.85	0.87	0.71	0		0.87	0.38	0.91	0.91	0		0.93	**-**
Heavy	1	1	2	0		4	8	2	5	0		15	2	39	0	0		41	0	35	6	0		41	**-**
Heavy %	3.8%	1.1%	28.6%	0%		3.3%	6.4%	2.2%	11.6%	0%		5.8%	4.5%	7.8%	0%	0%		7.3%	0%	6.9%	6.6%	0%		6.8%	**-**
Lights	25	86	5	0		116	117	87	38	0		242	42	460	20	0		522	3	475	85	0		563	**-**
Lights %	96.2%	98.9%	71.4%	0%		96.7%	93.6%	97.8%	88.4%	0%		94.2%	95.5%	92.2%	100%	0%		92.7%	100%	93.1%	93.4%	0%		93.2%	**-**
Single-Unit Trucks	0	0	0	0		0	3	0	0	0		3	0	27	0	0		27	0	17	3	0		20	**-**
Single-Unit Trucks %	0%	0%	0%	0%		0%	2.4%	0%	0%	0%		1.2%	0%	5.4%	0%	0%		4.8%	0%	3.3%	3.3%	0%		3.3%	**-**
Buses	0	1	2	0		3	5	2	4	0		11	2	8	0	0		10	0	8	3	0		11	**-**
Buses %	0%	1.1%	28.6%	0%		2.5%	4%	2.2%	9.3%	0%		4.3%	4.5%	1.6%	0%	0%		1.8%	0%	1.6%	3.3%	0%		1.8%	**-**
Articulated Trucks	1	0	0	0		1	0	0	1	0		1	0	4	0	0		4	0	10	0	0		10	**-**
Articulated Trucks %	3.8%	0%	0%	0%		0.8%	0%	0%	2.3%	0%		0.4%	0%	0.8%	0%	0%		0.7%	0%	2%	0%	0%		1.7%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Spectrum

Turning Movement Count
Location Name: MAYFIELD RD & CREDITVIEW RD
Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

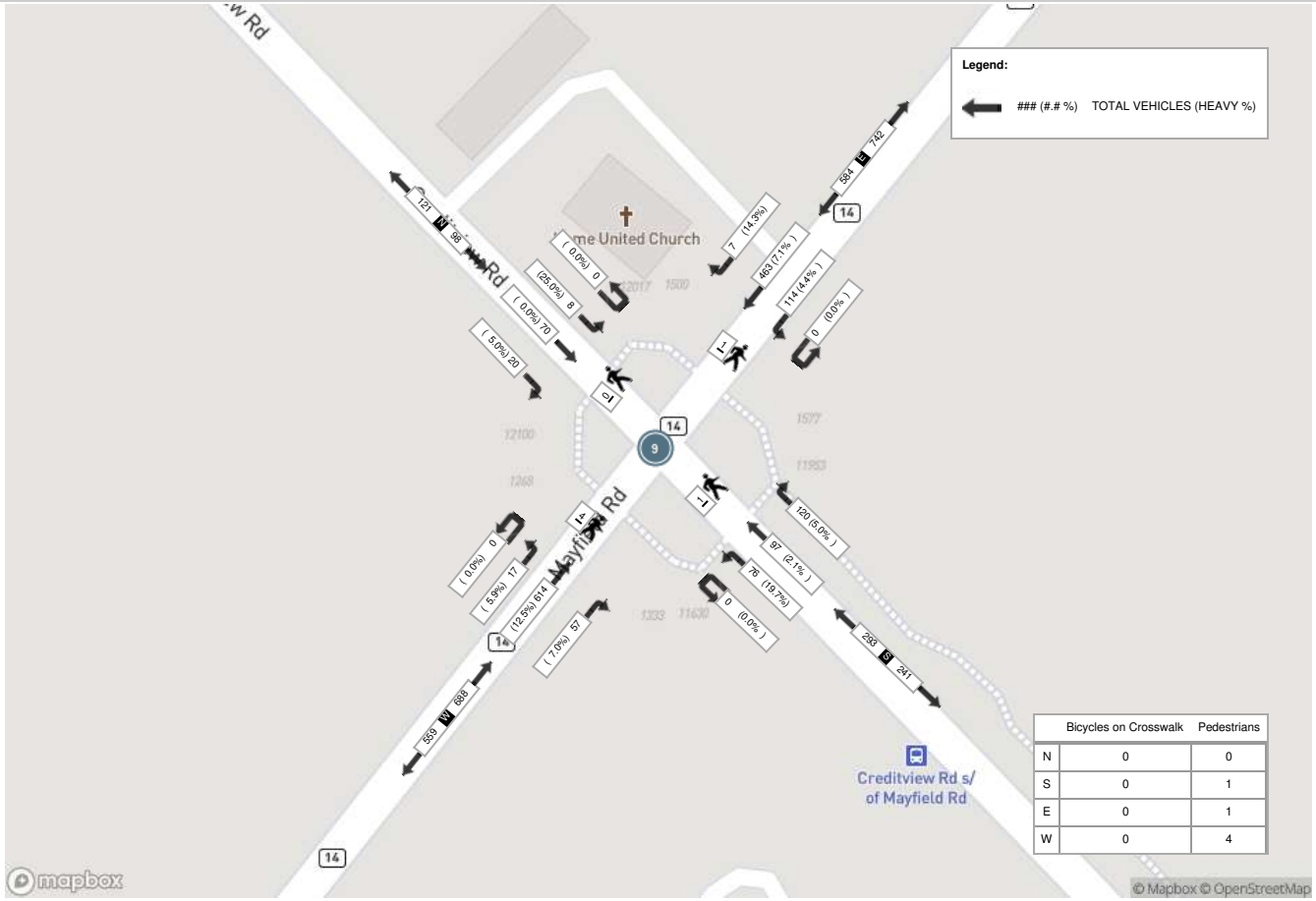
Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach CREDITVIEW RD						S Approach CREDITVIEW RD						W Approach MAYFIELD RD						E Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
15:00:00	4	15	3	0	0	22	38	27	20	0	0	85	11	139	4	0	0	154	0	108	31	0	0	139	400
15:15:00	0	14	2	0	0	16	27	20	15	0	0	62	12	146	4	0	0	162	3	121	32	0	0	156	396
15:30:00	4	12	1	0	0	17	30	28	23	0	0	81	13	165	2	0	2	180	1	122	26	0	0	149	427
15:45:00	12	29	2	0	0	43	25	22	18	0	1	65	21	164	7	0	2	192	3	112	25	0	1	140	440
Grand Total	20	70	8	0	0	98	120	97	76	0	1	293	57	614	17	0	4	688	7	463	114	0	1	584	**1663**
Approach%	20.4%	71.4%	8.2%	0%		-	41%	33.1%	25.9%	0%		-	8.3%	89.2%	2.5%	0%		-	1.2%	79.3%	19.5%	0%		-	**-**
Totals %	1.2%	4.2%	0.5%	0%		5.9%	7.2%	5.8%	4.6%	0%		17.6%	3.4%	36.9%	1%	0%		41.4%	0.4%	27.8%	6.9%	0%		35.1%	**-**
PHF	0.42	0.6	0.67	0		0.57	0.79	0.87	0.83	0		0.86	0.68	0.93	0.61	0		0.9	0.58	0.95	0.89	0		0.94	**-**
Heavy	1	0	2	0		3	6	2	15	0		23	4	77	1	0		82	1	33	5	0		39	**-**
Heavy %	5%	0%	25%	0%		3.1%	5%	2.1%	19.7%	0%		7.8%	7%	12.5%	5.9%	0%		11.9%	14.3%	7.1%	4.4%	0%		6.7%	**-**
Lights	19	70	6	0		95	114	95	61	0		270	53	537	16	0		606	6	430	109	0		545	**-**
Lights %	95%	100%	75%	0%		96.9%	95%	97.9%	80.3%	0%		92.2%	93%	87.5%	94.1%	0%		88.1%	85.7%	92.9%	95.6%	0%		93.3%	**-**
Single-Unit Trucks	0	0	1	0		1	1	0	1	0		2	1	27	0	0		28	0	14	1	0		15	**-**
Single-Unit Trucks %	0%	0%	12.5%	0%		1%	0.8%	0%	1.3%	0%		0.7%	1.8%	4.4%	0%	0%		4.1%	0%	3%	0.9%	0%		2.6%	**-**
Buses	1	0	1	0		2	5	2	14	0		21	3	36	1	0		40	1	15	4	0		20	**-**
Buses %	5%	0%	12.5%	0%		2%	4.2%	2.1%	18.4%	0%		7.2%	5.3%	5.9%	5.9%	0%		5.8%	14.3%	3.2%	3.5%	0%		3.4%	**-**
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	14	0	0		14	0	4	0	0		4	**-**
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	2.3%	0%	0%		2%	0%	0.9%	0%	0%		0.7%	**-**
Bicycles on Road	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	0	0	0	0		0	**-**
Bicycles on Road %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	**-**
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	-	**-**
Pedestrians%	-	-	-	-	0%		-	-	-	-	16.7%		-	-	-	-	66.7%		-	-	-	-	16.7%		**-**
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	**-**
Bicycles on Crosswalk%	-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		-	-	-	-	0%		**-**

Peak Hour: 07:45 AM - 08:45 AM **Weather: Overcast Clouds (7.73 °C)**

	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	0
E	0	0
W	0	0

Peak Hour: 03:00 PM - 04:00 PM **Weather: Overcast Clouds (14.32 °C)**



	Bicycles on Crosswalk	Pedestrians
N	0	0
S	0	1
E	0	1
W	0	4

Turning Movement Count (8 . MAYFIELD RD & THORNBUSH BLVD) CustID: 01420377

Start Time	E Approach MAYFIELD RD					S Approach THORNBUSH BLVD					W Approach MAYFIELD RD					Int. Total (15 min)	Int. Total (1 hr)
	Thru E:W	Left E:S	UTurn E:E	Peds E:	Approach Total	Right S:E	Left S:W	UTurn S:S	Peds S:	Approach Total	Right W:S	Thru W:E	UTurn W:W	Peds W:	Approach Total		
06:00:00	82	1	0	0	83	9	0	0	0	9	0	87	0	0	87	179	
06:15:00	83	0	0	0	83	10	1	0	0	11	0	86	0	0	86	180	
06:30:00	143	2	0	0	145	8	0	0	0	8	1	94	0	0	95	248	
06:45:00	114	3	0	0	117	6	0	0	0	6	0	94	0	0	94	217	824
07:00:00	119	1	0	0	120	10	2	0	0	12	0	130	0	0	130	262	907
07:15:00	128	5	0	0	133	17	1	0	0	18	0	147	0	0	147	298	1025
07:30:00	130	8	0	0	138	10	4	0	0	14	0	146	0	0	146	298	1075
07:45:00	144	5	0	0	149	6	2	0	0	8	0	148	0	0	148	305	1163
08:00:00	152	1	0	0	153	11	2	0	0	13	3	152	0	0	155	321	1222
08:15:00	154	5	0	0	159	7	2	0	0	9	0	185	0	0	185	353	1277
08:30:00	138	8	0	0	146	8	0	0	0	8	0	153	0	0	153	307	1286
08:45:00	183	3	0	0	186	14	3	0	0	17	1	111	0	0	112	315	1296
09:00:00	163	4	0	0	167	11	3	0	0	14	0	154	0	0	154	335	1310
09:15:00	101	2	0	0	103	11	2	0	0	13	0	138	0	0	138	254	1211
09:30:00	114	1	0	0	115	5	0	0	0	5	1	112	0	0	113	233	1137
09:45:00	99	7	0	0	106	6	2	0	0	8	2	122	0	0	124	238	1060
BREAK																	
15:00:00	147	9	0	0	156	7	2	0	0	9	1	180	0	0	181	346	
15:15:00	157	6	0	0	163	6	1	0	0	7	2	167	0	0	169	339	
15:30:00	143	10	0	0	153	5	1	0	0	6	2	189	0	0	191	350	
15:45:00	140	11	0	0	151	8	3	0	0	11	5	195	0	0	200	362	1397
16:00:00	137	17	0	0	154	10	1	0	0	11	1	157	0	0	158	323	1374
16:15:00	131	11	0	0	142	4	1	0	0	5	3	157	0	0	160	307	1342
16:30:00	139	13	0	0	152	4	2	0	0	6	3	157	0	0	160	318	1310
16:45:00	115	8	0	0	123	4	1	0	0	5	1	168	0	0	169	297	1245
17:00:00	134	10	0	0	144	12	2	0	0	14	2	161	0	0	163	321	1243
17:15:00	139	7	0	0	146	6	1	0	0	7	4	170	1	0	175	328	1264
17:30:00	137	11	0	0	148	4	3	0	0	7	6	192	0	0	198	353	1299
17:45:00	132	9	0	0	141	5	6	0	0	11	4	164	0	0	168	320	1322
18:00:00	145	10	0	0	155	8	0	0	0	8	3	167	0	0	170	333	1334
18:15:00	151	12	0	0	163	11	0	0	0	11	3	189	0	0	192	366	1372
18:30:00	119	6	0	0	125	10	1	0	1	11	6	136	0	0	142	278	1297
18:45:00	115	7	0	0	122	5	1	0	0	6	2	149	0	0	151	279	1256

Grand Total	4228	213	0	0	4441	258	50	0	1	308	56	4757	1	0	4814	**9563**	-
Approach%	95.2%	4.8%	0%		-	83.8%	16.2%	0%		-	1.2%	98.8%	0%		-	**-**	-
Totals %	44.2%	2.2%	0%		46.4%	2.7%	0.5%	0%		3.2%	0.6%	49.7%	0%		50.3%	**-**	-
Heavy	290	8	0		-	9	0	0		-	4	296	0		-	**-**	-
Heavy %	6.9%	3.8%	0%		-	3.5%	0%	0%		-	7.1%	6.2%	0%		-	**-**	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	**-**	-

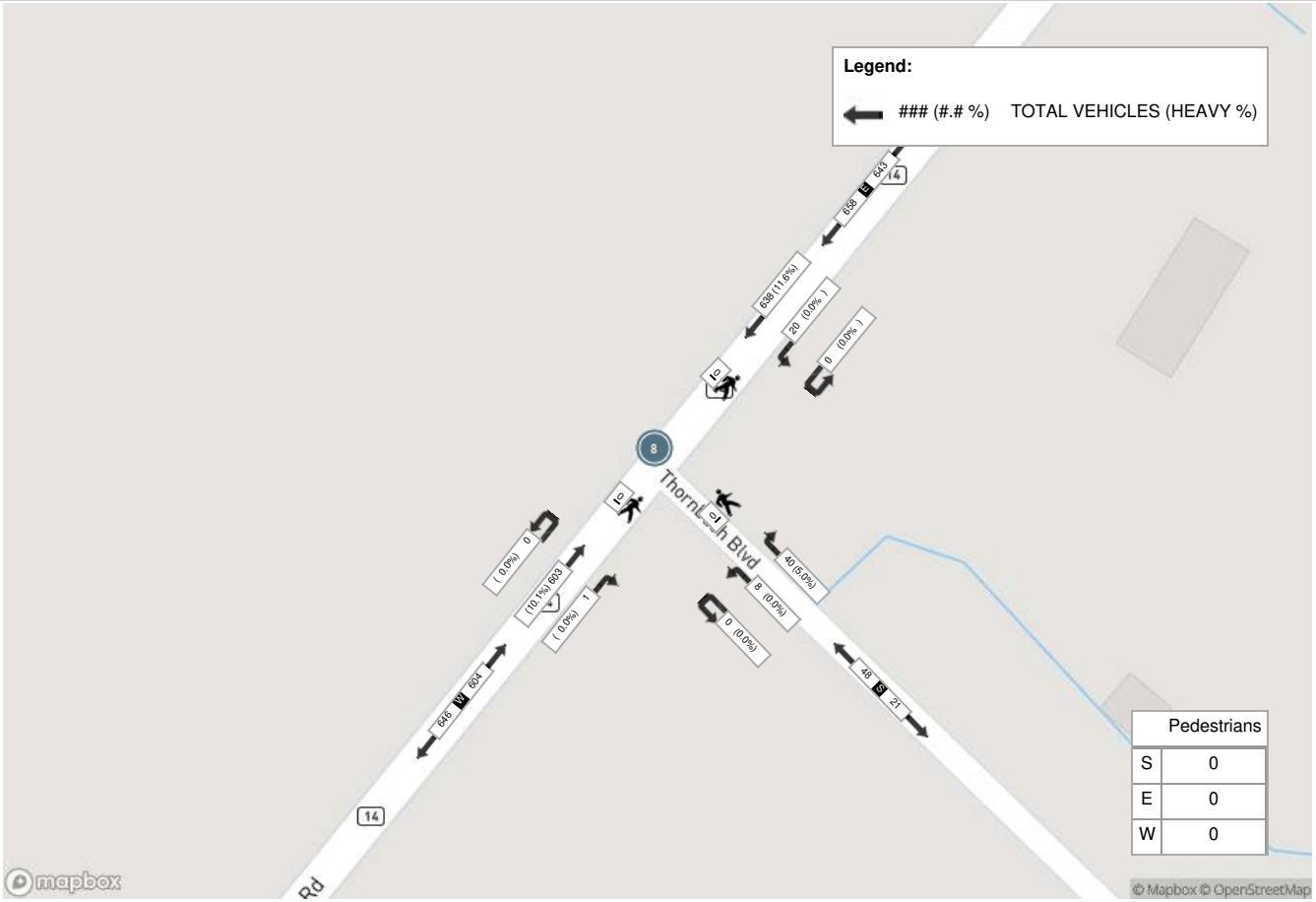
Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)

Start Time	E Approach MAYFIELD RD					S Approach THORNBUSH BLVD					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
08:15:00	154	5	0	0	159	7	2	0	0	9	0	185	0	0	185	353
08:30:00	138	8	0	0	146	8	0	0	0	8	0	153	0	0	153	307
08:45:00	183	3	0	0	186	14	3	0	0	17	1	111	0	0	112	315
09:00:00	163	4	0	0	167	11	3	0	0	14	0	154	0	0	154	335
Grand Total	638	20	0	0	658	40	8	0	0	48	1	603	0	0	604	**1310**
Approach%	97%	3%	0%		-	83.3%	16.7%	0%		-	0.2%	99.8%	0%		-	**-**
Totals %	48.7%	1.5%	0%		50.2%	3.1%	0.6%	0%		3.7%	0.1%	46%	0%		46.1%	**-**
PHF	0.87	0.63	0		0.88	0.71	0.67	0		0.71	0.25	0.81	0		0.82	**-**
Heavy	74	0	0		74	2	0	0		2	0	61	0		61	**-**
Heavy %	11.6%	0%	0%		11.2%	5%	0%	0%		4.2%	0%	10.1%	0%		10.1%	**-**
Lights	564	20	0		584	38	8	0		46	1	542	0		543	**-**
Lights %	88.4%	100%	0%		88.8%	95%	100%	0%		95.8%	100%	89.9%	0%		89.9%	**-**
Single-Unit Trucks	31	0	0		31	0	0	0		0	0	18	0		18	**-**
Single-Unit Trucks %	4.9%	0%	0%		4.7%	0%	0%	0%		0%	0%	3%	0%		3%	**-**
Buses	32	0	0		32	2	0	0		2	0	40	0		40	**-**
Buses %	5%	0%	0%		4.9%	5%	0%	0%		4.2%	0%	6.6%	0%		6.6%	**-**
Articulated Trucks	11	0	0		11	0	0	0		0	0	3	0		3	**-**
Articulated Trucks %	1.7%	0%	0%		1.7%	0%	0%	0%		0%	0%	0.5%	0%		0.5%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

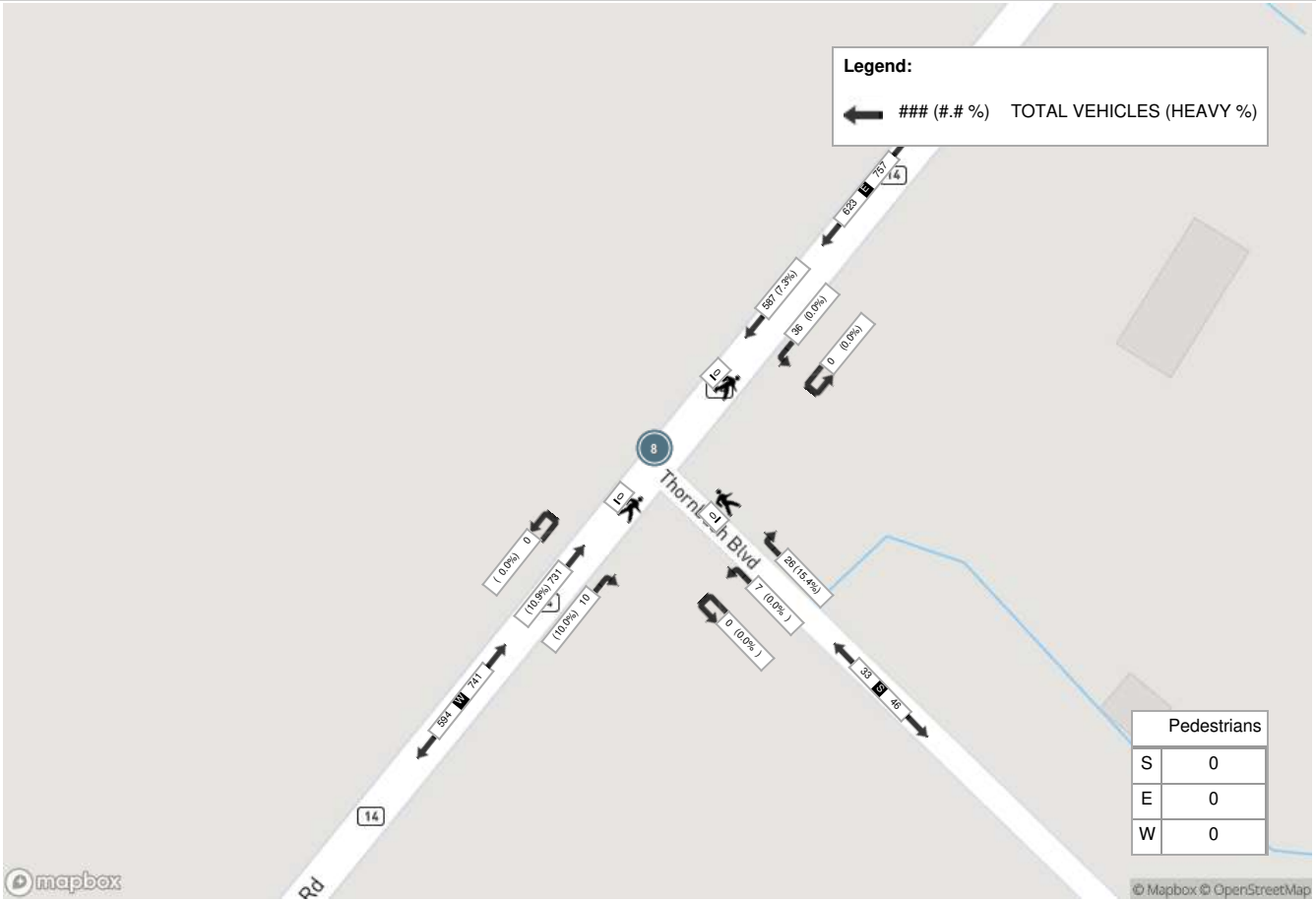
Start Time	E Approach MAYFIELD RD					S Approach THORNBUSH BLVD					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
15:00:00	147	9	0	0	156	7	2	0	0	9	1	180	0	0	181	346
15:15:00	157	6	0	0	163	6	1	0	0	7	2	167	0	0	169	339
15:30:00	143	10	0	0	153	5	1	0	0	6	2	189	0	0	191	350
15:45:00	140	11	0	0	151	8	3	0	0	11	5	195	0	0	200	362
Grand Total	587	36	0	0	623	26	7	0	0	33	10	731	0	0	741	**1397**
Approach%	94.2%	5.8%	0%		-	78.8%	21.2%	0%		-	1.3%	98.7%	0%		-	**-**
Totals %	42%	2.6%	0%		44.6%	1.9%	0.5%	0%		2.4%	0.7%	52.3%	0%		53%	**-**
PHF	0.93	0.82	0		0.96	0.81	0.58	0		0.75	0.5	0.94	0		0.93	**-**
Heavy	43	0	0		43	4	0	0		4	1	80	0		81	**-**
Heavy %	7.3%	0%	0%		6.9%	15.4%	0%	0%		12.1%	10%	10.9%	0%		10.9%	**-**
Lights	544	36	0		580	22	7	0		29	9	651	0		660	**-**
Lights %	92.7%	100%	0%		93.1%	84.6%	100%	0%		87.9%	90%	89.1%	0%		89.1%	**-**
Single-Unit Trucks	17	0	0		17	0	0	0		0	0	27	0		27	**-**
Single-Unit Trucks %	2.9%	0%	0%		2.7%	0%	0%	0%		0%	0%	3.7%	0%		3.6%	**-**
Buses	21	0	0		21	4	0	0		4	1	41	0		42	**-**
Buses %	3.6%	0%	0%		3.4%	15.4%	0%	0%		12.1%	10%	5.6%	0%		5.7%	**-**
Articulated Trucks	5	0	0		5	0	0	0		0	0	12	0		12	**-**
Articulated Trucks %	0.9%	0%	0%		0.8%	0%	0%	0%		0%	0%	1.6%	0%		1.6%	**-**
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	**-**
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		**-**

Peak Hour: 08:15 AM - 09:15 AM Weather: Overcast Clouds (7.73 °C)



Crozier & Associates
ACCOUNTS PAYABLE
TORONTO - SELECT PROVINCE -, M1W1Y6
- SELECT COUNTRY -

Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)



APPENDIX B

ENVIRONMENTAL NOISE GUIDELINES

APPENDIX B

ENVIRONMENTAL NOISE GUIDELINES

MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS (MECP)

Reference: MECP Publication NPC-300, October 2013: *"Environmental Noise Guideline, Stationary and Transportation Sources – Approval and Planning"*.

SPACE	SOURCE	TIME PERIOD	CRITERION
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	Road	07:00 to 23:00	45 dBA
	Rail	07:00 to 23:00	40 dBA
	Aircraft	24-hour period	NEF/NEP 5
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	Road	23:00 to 07:00	45 dBA
	Rail	23:00 to 07:00	40 dBA
	Aircraft	24-hour period	NEF/NEP 5
Sleeping quarters	Road	07:00 to 23:00	45 dBA
	Rail	07:00 to 23:00	40 dBA
	Aircraft	24-hour period	NEF/NEP 0
Sleeping quarters	Road	23:00 to 07:00	40 dBA
	Rail	23:00 to 07:00	35 dBA
	Aircraft	24-hour period	NEF/NEP 0
Outdoor Living Areas	Road and Rail	07:00 to 23:00	55 dBA
Outdoor Point of Reception	Aircraft	24-hour period	NEF/NEP 30#
	Stationary Source		
	Class 1 Area	07:00 to 19:00(1)	50* dBA
		19:00 to 23:00(1)	50* dBA
	Class 2 Area	07:00 to 19:00(2)	50* dBA
		19:00 to 23:00(2)	45* dBA
	Class 3 Area	07:00 to 19:00(3)	45* dBA
		19:00 to 23:00(3)	40* dBA
	Class 4 Area	07:00 to 19:00(4)	55* dBA
		19:00 to 23:00(4)	55* dBA

…./cont'd

SPACE	SOURCE	TIME PERIOD	CRITERION
Plane of a Window of Noise Sensitive Spaces	Stationary Source		
	Class 1 Area	07:00 to 19:00(1)	50* dBA
		19:00 to 23:00(1)	50* dBA
		23:00 to 07:00(1)	45* dBA
	Class 2 Area	07:00 to 19:00(2)	50* dBA
		19:00 to 23:00(2)	50* dBA
		23:00 to 07:00(2)	45* dBA
	Class 3 Area	07:00 to 19:00(3)	45* dBA
		19:00 to 23:00(3)	45* dBA
		23:00 to 07:00(3)	40* dBA
	Class 4 Area	07:00 to 19:00(4)	60* dBA
		19:00 to 23:00(4)	60* dBA
		23:00 to 07:00(4)	55* dBA

\# may not apply to in-fill or re-development.
* or the minimum hourly background sound exposure $L_{eq(1)}$, due to road traffic, if higher.
(1) Class 1 Area: Urban.
(2) Class 2 Area: Urban during day; rural-like evening and night.
(3) Class 3 Area: Rural.
(4) Class 4 Area: Subject to land use planning authority's approval.

Reference: MECP Publication ISBN 0-7729-2804-5, 1987: *"Environmental Noise Assessment in Land-Use Planning"*.

EXCESS ABOVE RECOMMENDED SOUND LEVEL LIMITS (dBA)	CHANGE IN SUBJECTIVE LOUDNESS ABOVE	MAGNITUDE OF THE NOISE PROBLEM	NOISE CONTROL MEASURES (OR ACTION TO BE TAKEN)
No excess (<55 dBA)	—	No expected noise problem	None
1 to 5 inclusive (56 to 60 dBA)	Noticeably louder	Slight noise impact	If no physical measures are taken, then prospective purchasers or tenants should be made aware by suitable warning clauses.
6 to 10 inclusive (61 - 65 dBA)	Almost twice as loud	Definite noise impact	Recommended.
11 to 15 inclusive (66 - 70 dBA)	Almost three times as loud	Serious noise impact	Strongly Recommended.
16 and over (>70 dBA)	Almost four times as loud	Very serious noise impact	Strongly Recommended (may be mandatory).

APPENDIX C

SAMPLE SOUND LEVEL CALCULATIONS - TRANSPORTATION SOURCES

STAMSON 5.0 NORMAL REPORT Date: 21-07-2025 10:12:45
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6.te Time Period: Day/Night 16/8 hours
Description: **R6 - Block 36 West Facade**

Road data, segment # 1: Creditview (day/night)

Car traffic volume : 5044/560 veh/TimePeriod *
Medium truck volume : 159/18 veh/TimePeriod *
Heavy truck volume : 106/12 veh/TimePeriod *
Posted speed limit : 70 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

* Refers to calculated road volumes based on the following input:

24 hr Traffic Volume (AADT or SADT): 5450
Percentage of Annual Growth : 2.00
Number of Years of Growth : 4.00
Medium Truck % of Total Volume : 3.00
Heavy Truck % of Total Volume : 2.00
Day (16 hrs) % of Total Volume : 90.00

Data for Segment # 1: Creditview (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 25.00 / 25.00 m
Receiver height : 7.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Creditview (day)

Source height = 1.19 m

ROAD (0.00 + 60.23 + 0.00) = 60.23 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.49	64.69	0.00	-3.30	-1.15	0.00	0.00	0.00	60.23

Segment Leq : 60.23 dBA

Total Leq All Segments: 60.23 dBA

```
Results segment # 1: Creditview (night)
---------------------------------------

Source height = 1.19 m

ROAD (0.00 + 53.74 + 0.00) = 53.74 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.49  58.20   0.00  -3.30  -1.15   0.00   0.00   0.00  53.74
-------------------------------------------------------------------------------

Segment Leq : 53.74 dBA

Total Leq All Segments: 53.74 dBA



TOTAL Leq FROM ALL SOURCES (DAY): 60.23
                           (NIGHT): 53.74
```