

TOWN OF CALEDON
PLANNING
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August 1, 2025

Environmental Noise Feasibility Study

Argo Mayfield West V

Proposed Residential Subdivision

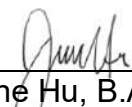
Town of Caledon

July 21, 2025
Project: 1240450-000

Prepared for

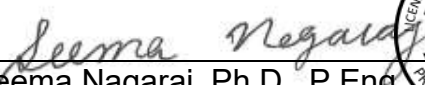
Argo Mayfield West V Limited

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Version History

Version #	Date	Comments
1.0	February 5, 2025	Final Report – Prepared for Submission
2.0	March 11, 2025	Update based on revised draft plan
3.0	July 21, 2025	Update based on revised draft plan

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Environmental Noise Feasibility Study

Argo Mayfield West V

Proposed Residential Subdivision

Town of Caledon

EXECUTIVE SUMMARY

Valcoustics Canada Ltd. (VCL) previously prepared two Environmental Noise Feasibility Studies, dated February 5, 2025, and March 11, 2025, for the proposed residential subdivision in support of the Draft Plan of Subdivision application submission to the Town of Caledon.

The subject site is located within the Alloa Secondary Plan area, to the northwest of the intersection of Mayfield Road and Chinguacousy Road. The proposed development will consist of detached dwellings (Blocks 1 to 93), traditional/street townhouses (Blocks 94 to 101), and dual-frontage townhouses (Blocks 102 and 103). Blocks 104 to 150 are residential reserve part blocks, which will be combined with lots on the adjacent land parcels to create full townhouse and detached dwelling blocks/lots.

The transportation noise source with the potential for impact at the subject site is road traffic on Chinguacousy Road and the new internal collector roadways in the development (Alexander Gillespie Avenue and Speersville Avenue). There are no stationary noise sources in the vicinity with the potential for impact at the subject site.

To meet the noise guideline limits:

- Mandatory air conditioning is required for the dwellings adjacent to Chinguacousy Road (Block 102 and 103, and Residential Reserve Block 104).
- The provision for adding air conditioning is required at:
 - Dwellings in the vicinity of Chinguacousy Road (Blocks 97, 101, and Residential Reserve Block 150); and
 - Dwellings adjacent to Alexander Gillespie Avenue (Blocks 79 to 88, and Residential Reserve Blocks 110, 111, 144 and 145).

See Figure 2 for specific locations.

- For the dwellings adjacent to Chinguacousy Road (Block 102 and 103, and Residential Reserve Block 104), exterior wall construction meeting Sound Transmission Class (STC) 37 and exterior windows with ratings up to STC 30 will mitigate the indoor sound levels to the noise criteria.

Exterior wall construction meeting the minimum non-acoustical requirements of the Ontario Building Code (OBC) is expected to achieve a rating of STC 37. If upgraded exterior wall construction with a higher STC rating is used (e.g. brick veneer), the window STC requirements are expected to decrease.

- At all other locations, exterior wall and window construction meeting the minimum non-acoustical requirements of the OBC will be sufficient to meet the indoor noise criteria.

1.0 INTRODUCTION

Valcoustics Canada Ltd. (VCL) previously prepared two Environmental Noise Feasibility Studies, dated February 5, 2025, and March 11, 2025, for the proposed residential subdivision in support of the Draft Plan of Subdivision application submission to the Town of Caledon. This updated report has been prepared to address additional changes to the Draft Plan of Subdivision.

The sound levels from the environmental noise sources have been predicted on site and compared to the applicable Ministry of the Environment, Conservation and Parks (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 Alloo Secondary Plan area in the Town of Caledon. The site is on the west side of Chinguacousy Road, approximately 500 m north of Mayfield Road.

The site is bounded by:

- Chinguacousy Road, with residential dwellings currently under construction beyond, to the east;
- Future residential development (part of the Alloo Secondary Plan) to the north and south; and
- The future Speersville Avenue, with future residential development (part of the Alloo Secondary Plan) beyond, to the west.

The site is currently occupied by agricultural land and an associated single-family dwelling that will be demolished as part of the development.

Figure 1 shows a key plan.

This report was prepared using the Draft Plan of Subdivision, prepared by Glen Schnarr & Associates Inc., dated June 12, 2025. The Draft Plan is included as Figure 2.

1.2 THE PROPOSED DEVELOPMENT

The subject site is located within the Alloo Secondary Plan area, to the northwest of the intersection of Mayfield Road and Chinguacousy Road. The proposed development will consist of detached dwellings (Blocks 1 to 93), traditional/street townhouses (Blocks 94 to 101), and dual-frontage townhouses (Blocks 102 and 103). Blocks 104 to 150 are residential reserve part blocks, which will be combined with lots on the adjacent land parcels to create full townhouse and detached dwelling blocks/lots.

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 (traditional) townhouses will be provided with grade-level rear yard outdoor amenity space.

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 Chinguacousy Road and the future internal collector roadways (Alexander Gillespie Avenue and Speersville Avenue). Other roadways are either far enough removed from the site or are anticipated to have low traffic volumes and are not expected to create a significant noise impact on the site.

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

2.1.1.1 Chinguacousy Road

Future (year 2041) traffic volumes for Chinguacousy Road were obtained from the Traffic Impact Study (TIS) for the proposed development, prepared by C.F. Crozier & Associates Inc. 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. The 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 Chinguacousy Road.

Truck percentages were not included in the future traffic data. Truck percentages for Chinguacousy Road were therefore calculated using the year 2024 TMC data provided in the TIS. For this analysis, it was assumed that these truck percentages would also be applicable to the year 2045 condition.

The day/night split for Chinguacousy Road was assumed to be 90%/10%, as is typical for well travelled roadways. The speed limit on Chinguacousy Road is 60 km/h.

2.1.1.2 Internal Roadways

The future internal collector roadways with the potential for impact at the subject site are shown on the TIS as Street E (Speersville Avenue) at the west end of the parcel, and Street D (Alexander Gillespie Avenue) at the centre of the parcel.

Future (year 2041) traffic volumes for these future internal roadways were provided in the TIS in the form of peak hour TMC data. The 24-hour traffic volumes were calculated by multiplying the higher of either the AM or PM peak hour volume by 10.

The TIS indicated that any traffic growth on these roadways would be attributable to the planned buildout of the Secondary Plan area, which was already captured in the calculations. The TIS therefore did not apply any growth rate to the collector roads in the study. Thus, to be consistent with the TIS, the year 2041 traffic volumes were also applied to the year 2045 condition.

Although current truck percentages are not available for the future internal roadways, some of these roadways will be continuations or connections to existing roads on the south side of Mayfield Road (for example, Street E/Speersville Avenue will connect to Brisdale Avenue south of Mayfield Road). The existing truck percentages on the existing roadways were used to estimate the future truck percentages on the internal roadways in the development. It is noted that Street D/Alexander Gillespie Avenue does not connect or continue to an existing roadway south of Mayfield Road. For this analysis, the truck percentages used for Speersville Avenue were also applied to Alexander Gillespie Avenue.

The 2024 TMC data included in the TIS indicated that the truck volume was approximately 5% of the total vehicle volume on the existing roadways in the vicinity of the subject site. All internal roadways were therefore 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 both 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 collector roadways are expected to be 50 km/h.

TABLE 1 ROAD TRAFFIC DATA

Roadway	Year	24-Hour Traffic Volume ⁽¹⁾	% Trucks ⁽²⁾		Speed Limit (kph) ^(2,3)	Day/Night Split (%)
			Medium	Heavy		
Chinguacousy Road	2041 (2045)	22 950 (24 842)	3.3	2.2	60	90/10
Alexander Gillespie Avenue	2041 (2045)	3 540 (3 540)	3	2	50	90/10
Speersville Avenue	2041 (2045)	1 020 (1 020)	3	2	50	90/10

Notes:

- (1) Year 2041 traffic volumes were provided in the TIS in the form of peak hour TMCs. The 24-hour traffic volumes were calculated by multiplying the higher of the AM and PM peak hour volumes by 10. For Chinguacousy Road, the year 2041 volume was projected to the year 2045 at a growth rate of 2%, compounded annually. The volumes on the collector roadways were not projected, as the TIS indicates that no further growth is expected (i.e. the year 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 limits were used in the analysis, per Town of Caledon guidelines.

2.2 STATIONARY SOURCES

An existing transformer station is located at the northwest corner of Mayfield Road and Chinguacousy Road, approximately 500 m away from the closest planned residential dwelling. Due to the distance separation from the subject site, noise from the transformer station is not anticipated to have a significant impact at the subject site. In addition, the transformer station will be screened from the subject site by the future developments on the intervening parcels. Thus, this transformer station has not been considered further in this assessment.

3.0 ENVIRONMENTAL NOISE GUIDELINES

3.1 TRANSPORTATION SOURCES

3.1.1 MECP Publication NPC-300

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 C.

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 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).

(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).

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 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. It is understood that the surrounding low-rise residential development (i.e., future development within the parcels to the north and south) will be built out along a similar timeline to the subject development. Thus, screening from these future dwellings was also included in the assessment.

4.2 RESULTS

The highest unmitigated daytime/nighttime sound levels of 68/61 dBA are predicted to occur at the east facade of Block 102, adjacent to Chinguacousy Road (receptor R1).

The highest unmitigated daytime OLA sound level of 51 dBA is predicted to occur at the rear yards of the townhouse blocks in the vicinity of Chinguacousy Road (receptor R8).

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⁾	Source	Distance (m) ⁽²⁾	L _{eq} Day (dBA)	L _{eq} Night (dBA)
R1 Block 102 East Façade	Chinguacousy Road	22	68	61
R2 Block 102 South Façade	Chinguacousy Road	22	65	58
R3 Block 101 East Façade	Chinguacousy Road	62	56	49
R4 Block 85 West Façade	Alexander Gillespie Avenue	15	60	53
R5 Block 92 West Façade	Alexander Gillespie Avenue	35	49	42
R6 Residential Reserve Block 114 West Façade	Speersville Avenue	15	54	48

.../cont'd

TABLE 2 PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS (continued)

Location ⁽¹⁾	Source	Distance (m) ⁽²⁾	L _{eq} Day (dBA)	L _{eq} Night (dBA)
R7 Residential Reserve Block 114 Rear Yard OLA	Speersville Avenue	20	50	-
R8 Block 101 Rear Yard OLA	Chinguacousy Road	66	51	-

Notes:

- (1) See Figure 2.
(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. In determining the worst-case architectural sound isolation requirements, exterior wall and window areas were assumed to be 80% and 30%, respectively, of the associated floor area, on both facades of a corner room with both facades exposed directly or at an angle to the transportation noise source(s).

The assessment shows that for the first row of dwellings from Chinguacousy Road (Blocks 102 and 103, and Residential Reserve Block 104), exterior wall construction meeting STC 37 and exterior windows with ratings up to STC 30 will mitigate the indoor sound levels to the indoor noise criteria. See Figure 2 for dwelling locations.

For windows, the window frames themselves must also be designed to ensure that the overall sound isolation performance for the entire window unit meets the sound isolation requirement. This should be confirmed by the window manufacturer through the submission of acoustical test data.

Exterior wall construction meeting the minimum non-acoustical requirements of the OBC is expected to achieve a rating of STC 37. If upgraded exterior wall construction with a higher STC rating is used (e.g. brick veneer), the window STC requirements are expected to decrease.

At all remaining dwellings in the development, exterior wall and window construction meeting the minimum non-acoustical requirements of the OBC will be sufficient to meet the indoor noise criteria.

4.3.1.2 Ventilation Requirements

The assessment shows that mandatory air conditioning is required at the dwellings adjacent to Chinguacousy Road (Blocks 102, 103, and Residential Reserve Block 104).

The provision for adding air conditioning is required at:

- Dwellings in the vicinity of Chinguacousy Road (all dwellings in Blocks 97, 101, and Residential Reserve Block 150); and
- Dwellings adjacent to Alexander Gillespie Avenue (Blocks 79 to 88, and Residential Reserve Block 110, 111, 144, and 145).

See Figure 2 for exact 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.

The locations of the dwellings with ventilation requirements are shown on Figure 2.

4.3.2 Outdoors

Based on the predicted sound levels, all rear yards are predicted to meet the MECP design target of 55 dBA. Thus, sound barriers are not required for noise control purposes for the subject site.

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	Air Conditioning ⁽²⁾	Exterior Wall ⁽³⁾	Exterior Window ⁽⁴⁾	Sound Barrier ⁽⁵⁾	Warning Clauses ⁽⁶⁾
Block 102 and 103; Residential Reserve Block 104	Mandatory	STC 37	Up to STC 30	Not required	A + B
Block 79 to 88, 97 and 101; Residential Reserve Block 110, 111, 144, 145, and 150	Provision for adding.	No special acoustical requirements.	No special acoustical requirements.	Not required.	A + C
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.
- (3) STC – Sound Transmission Class Rating (Reference ASTM E-413).
The requirements are based on the assumed percentages of wall and window area to associated floor area stated in Section 4.3.1.1 and should be reviewed once detailed floor plans are available
- (4) STC – Sound Transmission Class Rating (Reference ASTM E-413). A sliding glass walkout door should be considered as a window and be included in the percentage of glazing.
The requirements were based on the assumed percentages of wall and window area to associated floor area stated in Section 4.3.1.1 and should be reviewed once detailed floor plans are available. If exterior walls with higher STC ratings are used, the window requirements may decrease.
- (5) Sound barriers must be of solid construction with no gaps, cracks, or holes, and must have a minimum surface density of 20 kg/m².
- (6) 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 supplied with a central air conditioning system which 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."
 - C. "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."
- (7) All exterior doors shall be fully weather-stripped.

5.0 CONCLUSIONS

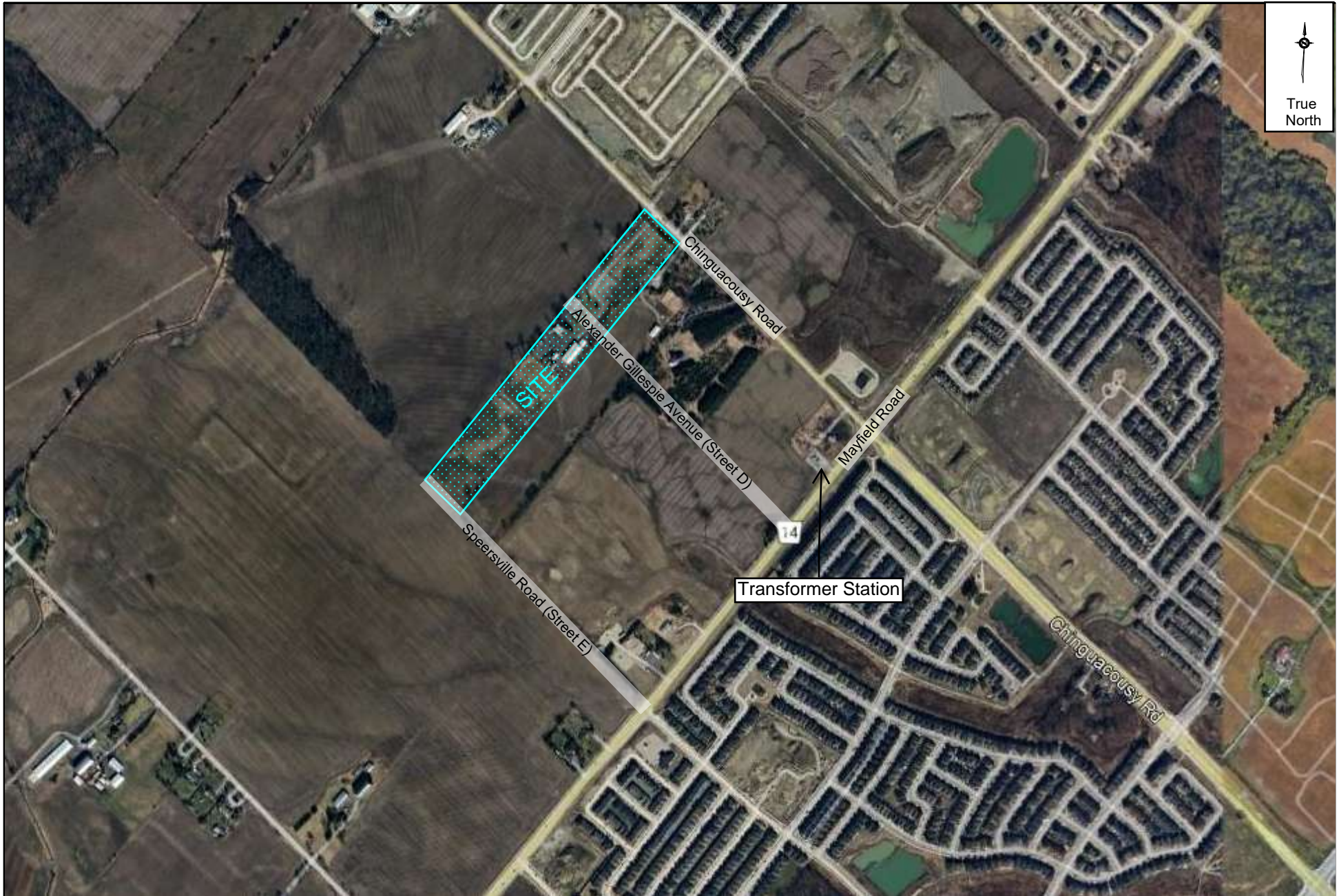
With the incorporation of the recommended noise mitigation measures, the applicable Town of Caledon, Peel Region and MECP noise guidelines can be met and a suitable acoustical environment provided for the occupants.

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

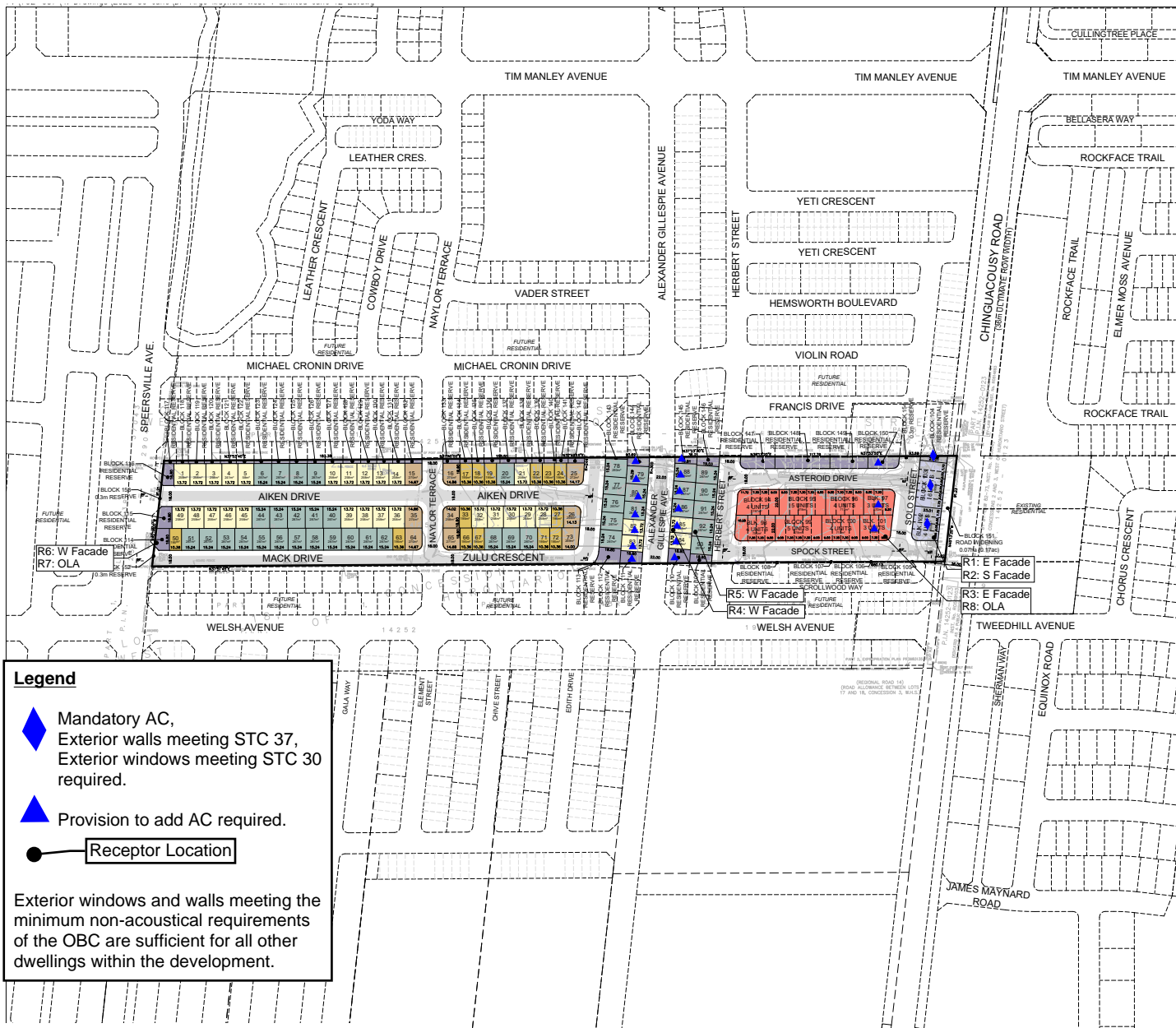
6.0 REFERENCES

1. PC STAMSON 5.04, “Computer Program for Road Traffic Noise Assessment”, Ontario Ministry of the Environment.
2. Building Practice Note No. 56: “Controlling Sound Transmission into Buildings”, by J. D. Quirt, Division of Building Research, National Council of Canada, September 1985.
3. “Environmental Noise Assessment in Land-Use Planning 1987”, Ontario Ministry of the Environment, February 1987, ISBN 0-7729-2804-5.
4. MECP Publication NPC-300, “Stationary and Transportation Sources – Approval and Planning” Ontario Ministry of the Environment, August 2013.
5. “General Guidelines for the Preparation of Acoustical Reports in the Region of Peel”, Region of Peel. November 2012.
6. “Development Standards Manual, Version 5.0”, Town of Caledon, 2019.
7. “Transportation Impact Study, Alloo Phase 1 Lands, Tertiary Plan, Town of Caledon, Region of Peel”, C.F. Crozier & Associates Inc., December 2024.
8. “Environmental Noise Feasibility Study – Argo Mayfield West V”, Valcoustics Canada, March 11, 2025.

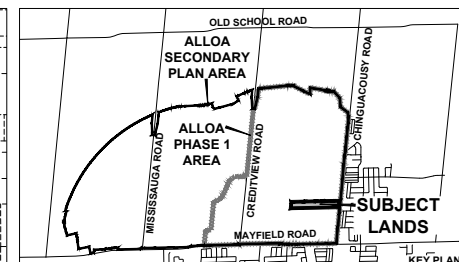
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 <p>VALCOUSTICS Canada Ltd. consulting acoustical engineers</p>	Title Key Plan	Date July 17, 2025	Figure 1
	Project Name Argo Mayfield V, Caledon	Project No. 124-0450	



Base drawing prepared by Glen Schnarr & Associates, 2025



DRAFT PLAN OF SUBDIVISION ARGO MAYFIELD WEST V LIMITED FILE # 21T-25004C

PART OF LOT 18, CONCESSION 3,
WEST OF HURONTARIO STREET
(GEOGRAPHIC TOWNSHIP OF CHINGUACOUSY)
TOWN OF CALEDON
REGIONAL MUNICIPALITY OF PEELE

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: *P. U. K. KUMARANAYAKE*

DATE: FEB. 26, 2025

A. U. KUMARANAYAKE, O.L.S.
R.P.E. SURVEYING LTD.
640 CHRIS EA ROAD, SUITE 7
WOODBRIDGE ON, L4L 9A3
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 - 10.36m (34')	1-93	0.27	0.67	14	51.9
DETACHED - 13.72m (45')		0.75	1.85	29	38.7
DETACHED - 14.00m (46')		0.24	0.59	9	37.5
DETACHED - 15.24m (50')		1.17	2.89	41	35.0
STREET TOWNHOUSE - 7.30m (24')	94-101	0.59	1.46	32	54.2
DUAL FRONTAGE TOWNHOUSE - 6.00m (20')	102-103	0.18	0.40	10	62.5
RESIDENTIAL RESERVE	104-150	0.48	1.14		
ROAD WIDENING	151	0.07	0.17		
0.3m RESERVE	152-154	0.00	0.00		
16.0m-18.0m LOCAL R.O.W. (LENGTH 1.347m)		2.26	5.58		
22.0m COLLECTOR R.O.W. (LENGTH 91m)		0.20	0.49		
TOTAL	154	6.17	15.25	135	42.5

NOTES

- LOCAL TO COLLECTOR DAYLIGHT TRIANGLE - 7.5m x 7.5m
- LOCAL TO LOCAL DAYLIGHT RADII - 5.0m
- PAVEMENT ILLUSTRATION IS DIAGRAMMATIC
- ALL INTERSECTION ANGLES ARE 90° UNLESS OTHERWISE NOTED



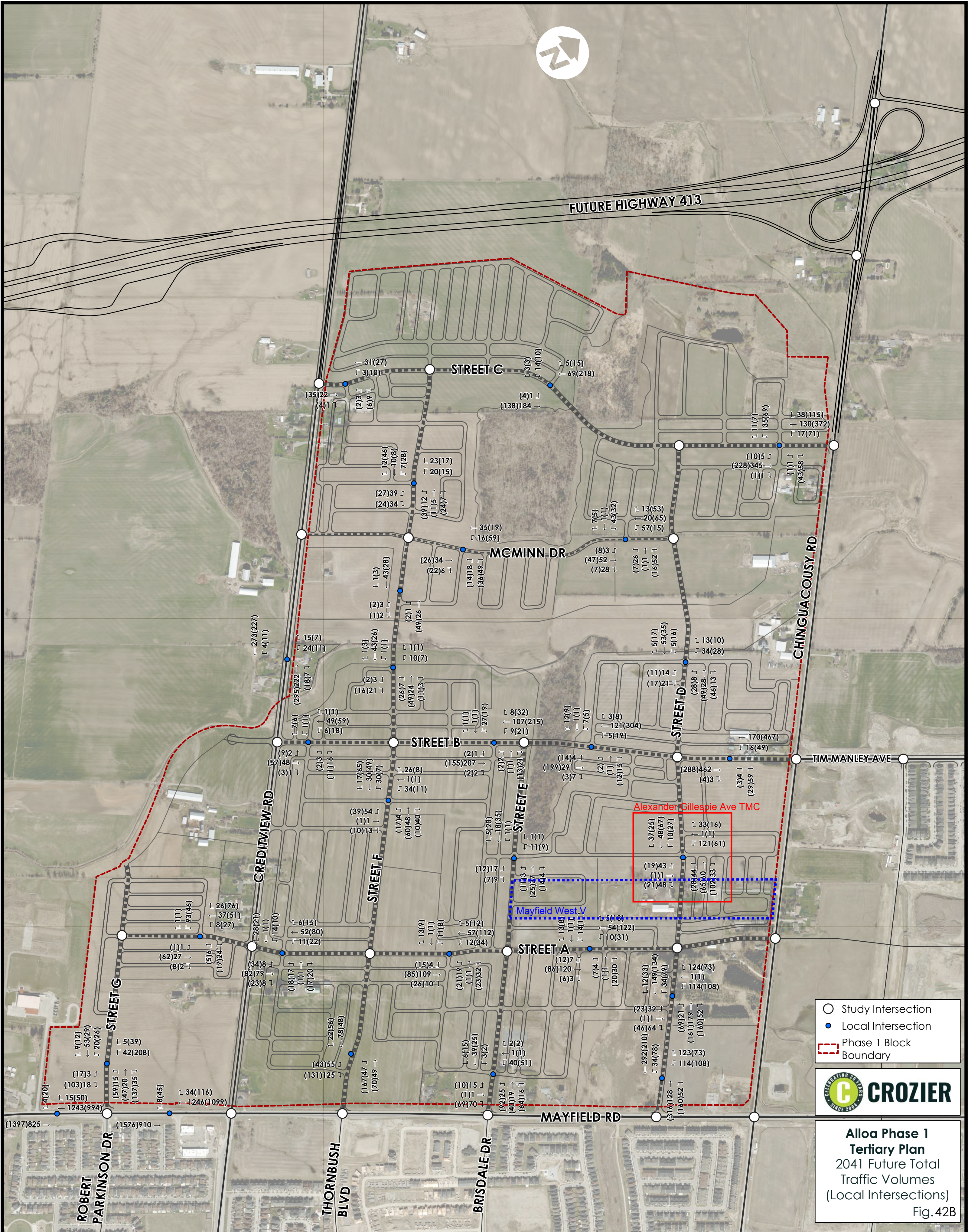
SCALE: 1:1500
(24 x 36)
JUNE 12, 2025

ARGO
DEVELOPMENT CORP.

GSAI
Glen Schnarr & Associates Inc.

APPENDIX A

TRAFFIC DATA CORRESPONDENCE



- Study Intersection
- Local Intersection
- Phase 1 Block Boundary



**Aloa Phase 1
Tertiary Plan**
2041 Future Total
Traffic Volumes
(Local Intersections)
Fig. 42B



Turning Movement Count (7 . MAYFIELD RD & BRISDALE DR) CustID: 01420005

Start Time	E Approach MAYFIELD RD					S Approach BRISDALE DR					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	85	2	0	0	87	17	1	0	0	18	0	92	0	0	92	197	
06:15:00	80	2	0	0	82	13	3	0	0	16	1	94	0	0	95	193	
06:30:00	151	3	0	0	154	20	4	0	0	24	0	99	0	0	99	277	
06:45:00	106	4	0	0	110	20	1	0	0	21	0	105	0	0	105	236	903
07:00:00	122	5	0	0	127	18	8	0	0	26	4	138	0	0	142	295	1001
07:15:00	119	5	0	0	124	22	7	0	0	29	3	153	0	0	156	309	1117
07:30:00	139	8	0	0	147	19	4	0	0	23	0	149	0	0	149	319	1159
07:45:00	147	12	0	0	159	15	4	0	0	19	2	135	0	0	137	315	1238
08:00:00	147	8	0	0	155	19	3	0	0	22	6	160	0	0	166	343	1286
08:15:00	160	9	0	0	169	24	4	0	0	28	5	193	0	0	198	395	1372
08:30:00	146	5	0	0	151	14	3	0	0	17	4	150	0	0	154	322	1375
08:45:00	182	4	0	0	186	18	4	0	0	22	5	125	0	0	130	338	1398
09:00:00	154	8	1	0	163	14	5	0	0	19	5	158	0	0	163	345	1400
09:15:00	103	11	0	0	114	16	6	0	0	22	5	143	0	0	148	284	1289
09:30:00	115	7	0	0	122	20	3	0	0	23	8	112	0	0	120	265	1232
09:45:00	100	2	0	0	102	18	5	0	0	23	2	124	0	0	126	251	1145
BREAK																	
15:00:00	150	16	0	0	166	12	5	0	0	17	11	175	0	0	186	369	
15:15:00	159	22	0	0	181	16	5	0	0	21	10	159	0	0	169	371	
15:30:00	148	9	0	0	157	17	3	0	0	20	9	194	0	0	203	380	
15:45:00	157	20	0	0	177	6	3	0	0	9	8	194	0	0	202	388	1508
16:00:00	139	22	0	0	161	16	4	0	0	20	5	159	0	0	164	345	1484
16:15:00	150	15	0	0	165	13	4	0	0	17	5	154	0	0	159	341	1454
16:30:00	138	13	0	0	151	5	3	0	0	8	7	160	0	0	167	326	1400
16:45:00	123	23	0	0	146	16	6	0	0	22	11	158	0	0	169	337	1349
17:00:00	133	17	0	0	150	16	5	0	0	21	4	168	0	0	172	343	1347
17:15:00	145	13	0	0	158	10	5	1	0	16	7	167	0	0	174	348	1354
17:30:00	145	13	0	0	158	16	3	0	0	19	7	195	0	0	202	379	1407
17:45:00	137	19	0	1	156	10	5	0	0	15	14	150	0	0	164	335	1405
18:00:00	153	15	0	0	168	12	1	0	0	13	14	169	0	0	183	364	1426
18:15:00	165	19	0	0	184	12	5	0	0	17	7	181	0	0	188	389	1467
18:30:00	113	23	0	0	136	7	3	0	1	10	5	145	0	0	150	296	1384
18:45:00	122	20	0	0	142	10	3	0	0	13	9	146	0	0	155	310	1359



Grand Total	4333	374	1	1	4708	481	128	1	1	610	183	4804	0	0	4987	10305	-
Approach%	92%	7.9%	0%		-	78.9%	21%	0.2%		-	3.7%	96.3%	0%		-	-	-
Totals %	42%	3.6%	0%		45.7%	4.7%	1.2%	0%		5.9%	1.8%	46.6%	0%		48.4%	-	-
Heavy	291	9	0		-	16	11	0		-	9	296	0		-	-	-
Heavy %	6.7%	2.4%	0%		-	3.3%	8.6%	0%		-	4.9%	6.2%	0%		-	-	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	-	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	-	-



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

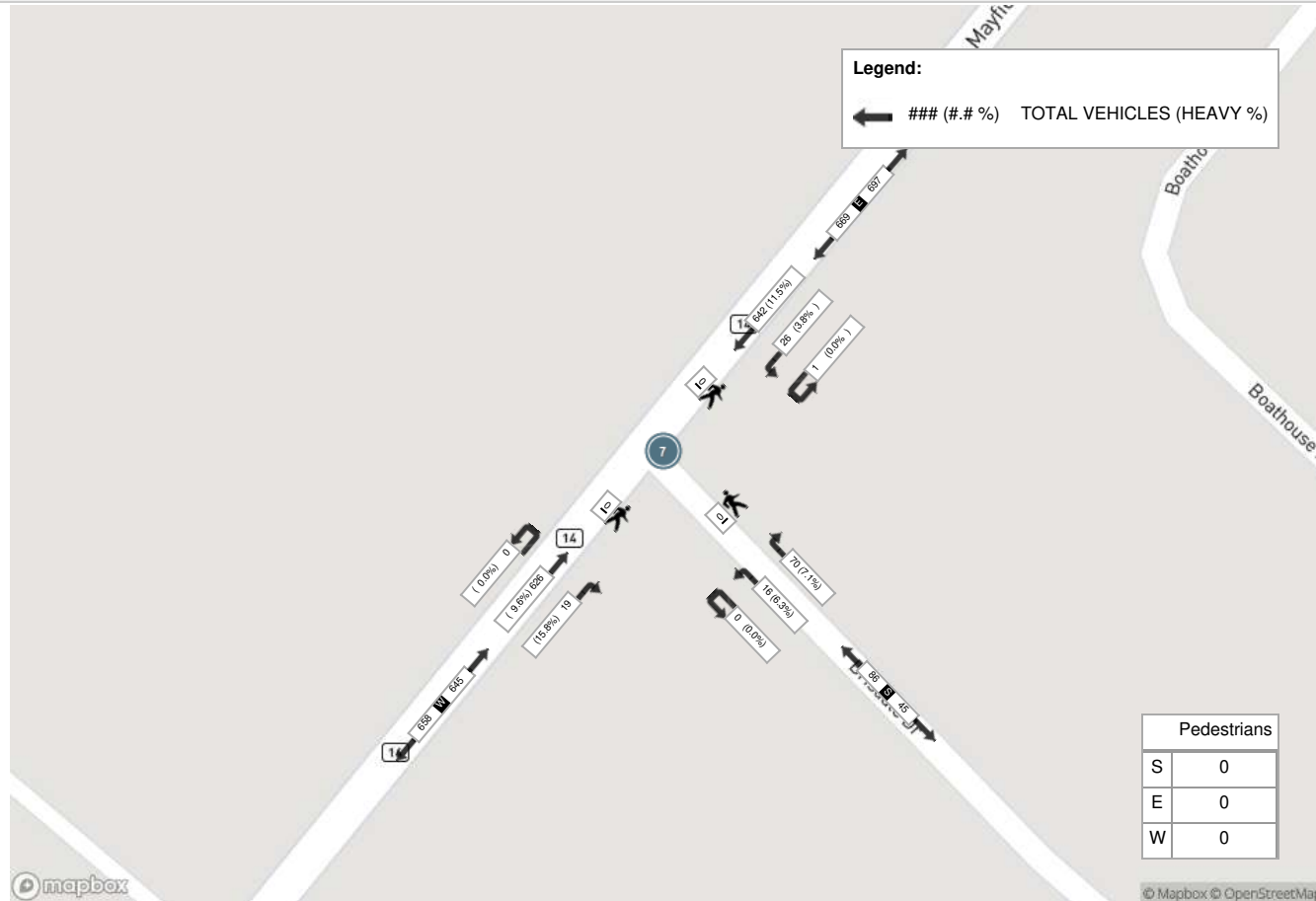
Start Time	E Approach MAYFIELD RD					S Approach BRISDALE DR					W Approach MAYFIELD RD					Int. Total (15 min)
	Thru	Left	UTurn	Peds	Approach Total	Right	Left	UTurn	Peds	Approach Total	Right	Thru	UTurn	Peds	Approach Total	
08:15:00	160	9	0	0	169	24	4	0	0	28	5	193	0	0	198	395
08:30:00	146	5	0	0	151	14	3	0	0	17	4	150	0	0	154	322
08:45:00	182	4	0	0	186	18	4	0	0	22	5	125	0	0	130	338
09:00:00	154	8	1	0	163	14	5	0	0	19	5	158	0	0	163	345
Grand Total	642	26	1	0	669	70	16	0	0	86	19	626	0	0	645	1400
Approach%	96%	3.9%	0.1%		-	81.4%	18.6%	0%		-	2.9%	97.1%	0%		-	-
Totals %	45.9%	1.9%	0.1%		47.8%	5%	1.1%	0%		6.1%	1.4%	44.7%	0%		46.1%	-
PHF	0.88	0.72	0.25		0.9	0.73	0.8	0		0.77	0.95	0.81	0		0.81	-
Heavy	74	1	0		75	5	1	0		6	3	60	0		63	-
Heavy %	11.5%	3.8%	0%		11.2%	7.1%	6.3%	0%		7%	15.8%	9.6%	0%		9.8%	-
Lights	568	25	1		594	65	15	0		80	16	566	0		582	-
Lights %	88.5%	96.2%	100%		88.8%	92.9%	93.8%	0%		93%	84.2%	90.4%	0%		90.2%	-
Single-Unit Trucks	30	1	0		31	1	1	0		2	0	18	0		18	-
Single-Unit Trucks %	4.7%	3.8%	0%		4.6%	1.4%	6.3%	0%		2.3%	0%	2.9%	0%		2.8%	-
Buses	33	0	0		33	4	0	0		4	3	39	0		42	-
Buses %	5.1%	0%	0%		4.9%	5.7%	0%	0%		4.7%	15.8%	6.2%	0%		6.5%	-
Articulated Trucks	11	0	0		11	0	0	0		0	0	3	0		3	-
Articulated Trucks %	1.7%	0%	0%		1.6%	0%	0%	0%		0%	0%	0.5%	0%		0.5%	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Pedestrians%	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-



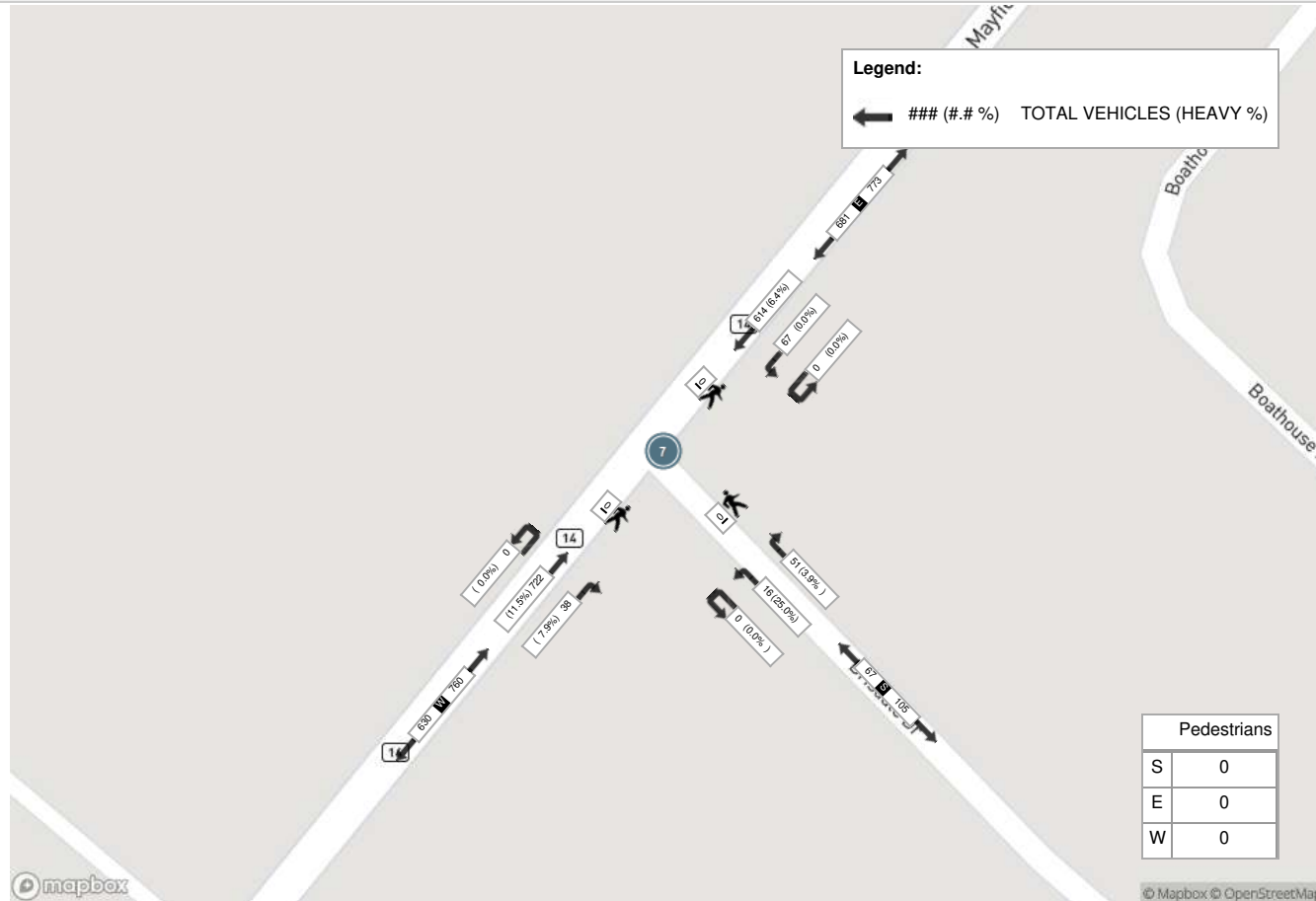
Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C)

Start Time	E Approach MAYFIELD RD					S Approach BRISDALE DR					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	150	16	0	0	166	12	5	0	0	17	11	175	0	0	186	369
15:15:00	159	22	0	0	181	16	5	0	0	21	10	159	0	0	169	371
15:30:00	148	9	0	0	157	17	3	0	0	20	9	194	0	0	203	380
15:45:00	157	20	0	0	177	6	3	0	0	9	8	194	0	0	202	388
Grand Total	614	67	0	0	681	51	16	0	0	67	38	722	0	0	760	1508
Approach%	90.2%	9.8%	0%		-	76.1%	23.9%	0%		-	5%	95%	0%		-	-
Totals %	40.7%	4.4%	0%		45.2%	3.4%	1.1%	0%		4.4%	2.5%	47.9%	0%		50.4%	-
PHF	0.97	0.76	0		0.94	0.75	0.8	0		0.8	0.86	0.93	0		0.94	-
Heavy	39	0	0		39	2	4	0		6	3	83	0		86	-
Heavy %	6.4%	0%	0%		5.7%	3.9%	25%	0%		9%	7.9%	11.5%	0%		11.3%	-
Lights	575	67	0		642	49	12	0		61	35	639	0		674	-
Lights %	93.6%	100%	0%		94.3%	96.1%	75%	0%		91%	92.1%	88.5%	0%		88.7%	-
Single-Unit Trucks	17	0	0		17	0	0	0		0	0	29	0		29	-
Single-Unit Trucks %	2.8%	0%	0%		2.5%	0%	0%	0%		0%	0%	4%	0%		3.8%	-
Buses	17	0	0		17	2	4	0		6	3	41	0		44	-
Buses %	2.8%	0%	0%		2.5%	3.9%	25%	0%		9%	7.9%	5.7%	0%		5.8%	-
Articulated Trucks	5	0	0		5	0	0	0		0	0	13	0		13	-
Articulated Trucks %	0.8%	0%	0%		0.7%	0%	0%	0%		0%	0%	1.8%	0%		1.7%	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Pedestrians%	-	-	-	0%	-	-	-	-	0%	-	-	-	-	0%	-	-

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



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





Turning Movement Count (5 . MAYFIELD RD & CHINGUACOUSY RD) CustID: 01419287

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W 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 E-N	Thru E-W	Left E-S	UTurn E-E	Peds E:	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			
06:00:00	4	9	0	0	0	13	1	78	12	0	0	91	27	12	5	0	0	44	2	100	6	0	0	108	256		
06:15:00	4	11	1	0	0	16	3	77	17	0	0	97	25	27	1	0	0	53	5	95	6	0	0	106	272		
06:30:00	3	6	1	0	0	10	1	139	15	0	0	155	22	26	11	0	0	59	3	117	6	0	0	126	350		
06:45:00	6	13	0	0	0	19	5	101	10	0	0	116	23	19	5	0	0	47	4	109	4	0	0	117	299	1177	
07:00:00	16	12	1	0	0	29	7	112	17	0	0	136	28	26	5	0	0	59	8	128	12	0	0	148	372	1293	
07:15:00	5	17	3	0	0	25	2	111	17	0	0	130	33	26	8	0	0	67	10	177	3	0	0	190	412	1433	
07:30:00	5	24	3	0	0	32	4	132	26	0	0	162	24	30	8	0	0	62	11	151	5	0	0	167	423	1506	
07:45:00	8	44	2	0	0	54	2	143	29	0	0	174	27	24	9	0	0	60	11	160	6	0	0	177	465	1672	
08:00:00	8	43	1	0	0	52	2	136	30	0	0	168	26	29	12	0	0	67	15	154	11	0	0	180	467	1767	
08:15:00	13	33	3	0	0	49	4	145	14	0	0	163	31	26	8	0	0	65	12	167	12	0	0	191	468	1823	
08:30:00	7	39	5	0	0	51	3	141	18	0	0	162	29	19	6	0	0	54	18	158	7	0	0	183	450	1850	
08:45:00	13	21	4	0	0	38	4	148	31	0	0	183	32	22	22	0	0	76	5	121	14	0	0	140	437	1822	
09:00:00	7	9	1	0	0	17	3	135	27	0	0	165	25	22	22	0	0	69	17	147	13	0	0	177	428	1783	
09:15:00	6	12	1	0	0	19	2	98	29	0	1	129	28	20	10	0	0	58	13	139	7	0	0	159	365	1680	
09:30:00	6	6	1	0	0	13	0	110	24	0	0	134	27	11	6	0	0	44	3	121	7	0	0	131	322	1552	
09:45:00	8	13	2	0	0	23	5	89	31	0	0	125	23	17	3	0	0	43	2	130	14	0	0	146	337	1452	
BREAK																											
15:00:00	7	24	3	0	0	34	5	154	26	0	0	185	36	23	10	0	1	69	9	160	5	0	0	174	462		
15:15:00	14	23	4	0	0	41	5	154	35	0	0	194	33	47	13	0	3	93	16	170	10	0	0	196	524		
15:30:00	8	30	3	0	0	41	3	140	28	0	0	171	31	34	8	0	0	73	10	162	16	0	0	188	473		
15:45:00	14	28	2	0	0	44	6	153	32	0	0	191	24	32	10	0	0	66	15	174	17	0	0	206	507	1966	
16:00:00	12	36	2	0	0	50	9	141	34	0	0	184	21	24	7	0	0	52	11	162	9	0	0	182	468	1972	
16:15:00	9	38	1	0	0	48	2	140	40	0	0	182	22	23	17	0	0	62	11	160	3	0	0	174	466	1914	
16:30:00	9	34	0	0	0	43	5	139	40	0	0	184	34	33	4	0	0	71	9	144	7	0	0	160	458	1899	
16:45:00	9	32	4	0	0	45	3	131	48	0	0	182	26	26	4	0	0	56	12	163	7	0	0	182	465	1857	
17:00:00	11	42	6	0	0	59	3	135	35	0	0	173	26	33	8	0	0	67	5	163	10	0	0	178	477	1866	
17:15:00	11	39	2	0	0	52	2	129	29	0	1	160	24	22	17	0	0	63	8	166	10	0	0	184	459	1859	
17:30:00	8	46	3	0	0	57	2	139	33	0	0	174	29	27	12	0	0	68	12	173	14	0	0	199	498	1899	
17:45:00	8	45	3	0	0	56	2	139	41	0	0	182	35	36	11	0	0	82	17	143	7	0	0	167	487	1921	
18:00:00	9	32	3	0	0	44	1	148	40	0	0	189	28	28	9	0	0	65	17	142	12	0	0	171	469	1913	
18:15:00	5	30	2	0	1	37	2	174	42	0	0	218	34	22	6	0	0	62	10	173	13	0	0	196	513	1967	
18:30:00	7	34	4	0	0	45	1	122	49	0	1	172	44	32	8	0	1	84	10	139	7	0	0	156	457	1926	
18:45:00	8	33	1	0	0	42	6	127	30	0	0	163	38	29	6	0	0	73	13	141	5	0	0	159	437	1876	
Grand Total	268	858	72	0	1	1198	105	4160	929	0	3	5194	915	827	291	0	5	2033	324	4709	285	0	0	5318	13743	-	
Approach%	22.4%	71.6%	6%	0%		-	2%	80.1%	17.9%	0%		-	45%	40.7%	14.3%	0%		-	6.1%	88.5%	5.4%	0%		-	-	-	
Totals %	2%	6.2%	0.5%	0%		8.7%	0.8%	30.3%	6.8%	0%		37.8%	6.7%	6%	2.1%	0%		14.8%	2.4%	34.3%	2.1%	0%		38.7%	-	-	
Heavy	47	22	6	0		-	14	228	43	0		-	29	14	22	0		-	17	250	47	0		-	-	-	
Heavy %	17.5%	2.6%	8.3%	0%		-	13.3%	5.5%	4.6%	0%		-	3.2%	1.7%	7.6%	0%		-	5.2%	5.3%	16.5%	0%		-	-	-	
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	



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

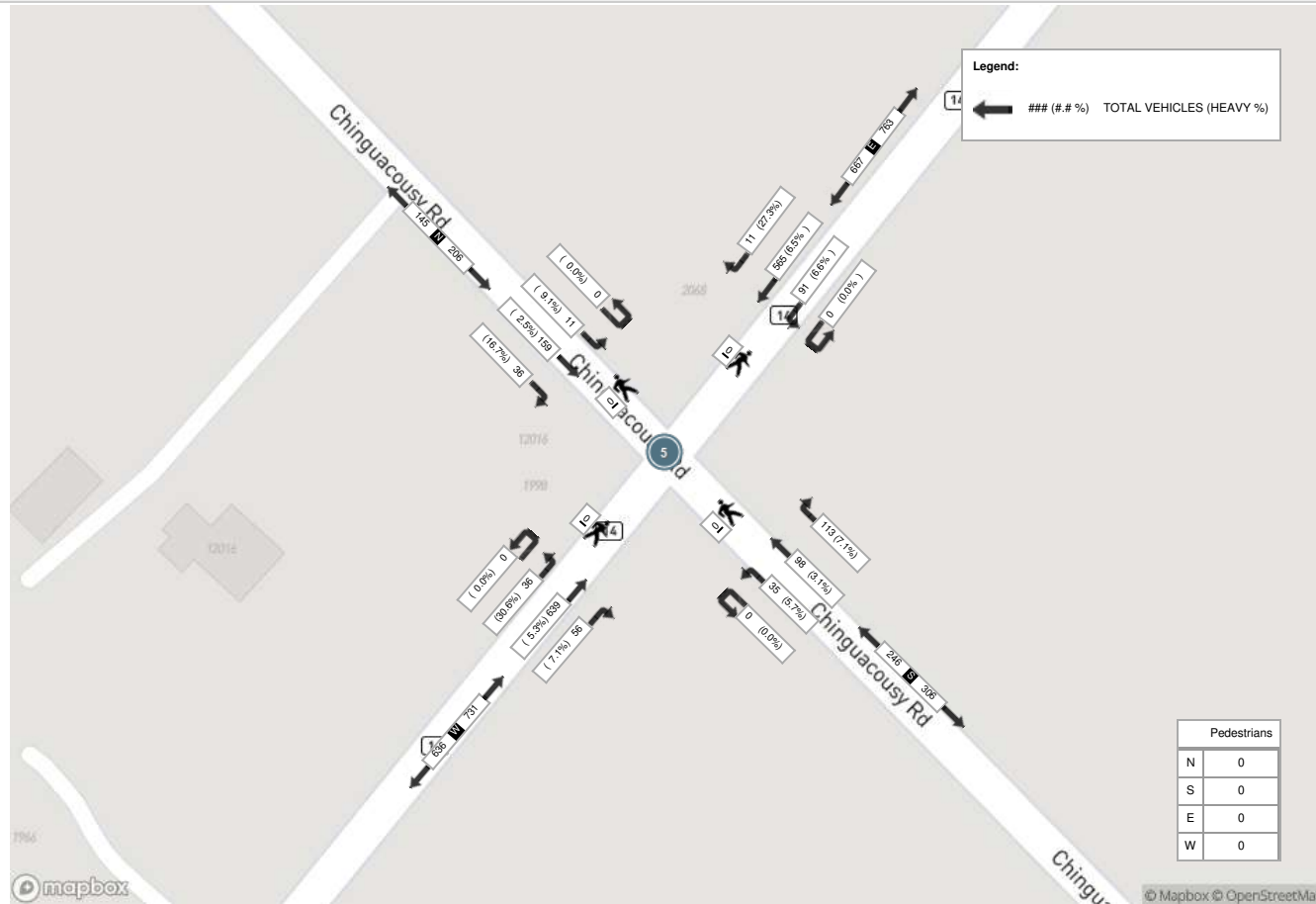
Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W Approach MAYFIELD RD						Int. Total (15 min)
	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	Right	Thru	Left	UTurn	Peds	Approach Total	
07:45:00	8	44	2	0	0	54	2	143	29	0	0	174	27	24	9	0	0	60	11	160	6	0	0	177	465
08:00:00	8	43	1	0	0	52	2	136	30	0	0	168	26	29	12	0	0	67	15	154	11	0	0	180	467
08:15:00	13	33	3	0	0	49	4	145	14	0	0	163	31	26	8	0	0	65	12	167	12	0	0	191	468
08:30:00	7	39	5	0	0	51	3	141	18	0	0	162	29	19	6	0	0	54	18	158	7	0	0	183	450
Grand Total	36	159	11	0	0	206	11	565	91	0	0	667	113	98	35	0	0	246	56	639	36	0	0	731	1850
Approach%	17.5%	77.2%	5.3%	0%		-	1.6%	84.7%	13.6%	0%		-	45.9%	39.8%	14.2%	0%		-	7.7%	87.4%	4.9%	0%		-	-
Totals %	1.9%	8.6%	0.6%	0%		11.1%	0.6%	30.5%	4.9%	0%		36.1%	6.1%	5.3%	1.9%	0%		13.3%	3%	34.5%	1.9%	0%		39.5%	-
PHF	0.69	0.9	0.55	0		0.95	0.69	0.97	0.76	0		0.96	0.91	0.84	0.73	0		0.92	0.78	0.96	0.75	0		0.96	-
Heavy	6	4	1	0		11	3	37	6	0		46	8	3	2	0		13	4	34	11	0		49	-
Heavy %	16.7%	2.5%	9.1%	0%		5.3%	27.3%	6.5%	6.6%	0%		6.9%	7.1%	3.1%	5.7%	0%		5.3%	7.1%	5.3%	30.6%	0%		6.7%	-
Lights	30	155	10	0		195	8	528	85	0		621	105	95	33	0		233	52	605	25	0		682	-
Lights %	83.3%	97.5%	90.9%	0%		94.7%	72.7%	93.5%	93.4%	0%		93.1%	92.9%	96.9%	94.3%	0%		94.7%	92.9%	94.7%	69.4%	0%		93.3%	-
Single-Unit Trucks	6	1	0	0		7	1	15	1	0		17	3	0	0	0		3	1	19	11	0		31	-
Single-Unit Trucks %	16.7%	0.6%	0%	0%		3.4%	9.1%	2.7%	1.1%	0%		2.5%	2.7%	0%	0%	0%		1.2%	1.8%	3%	30.6%	0%		4.2%	-
Buses	0	3	1	0		4	2	12	4	0		18	4	3	2	0		9	3	11	0	0		14	-
Buses %	0%	1.9%	9.1%	0%		1.9%	18.2%	2.1%	4.4%	0%		2.7%	3.5%	3.1%	5.7%	0%		3.7%	5.4%	1.7%	0%	0%		1.9%	-
Articulated Trucks	0	0	0	0		0	0	10	1	0		11	1	0	0	0		1	0	4	0	0		4	-
Articulated Trucks %	0%	0%	0%	0%		0%	0%	1.8%	1.1%	0%		1.6%	0.9%	0%	0%	0%		0.4%	0%	0.6%	0%	0%		0.5%	-
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%		-	-



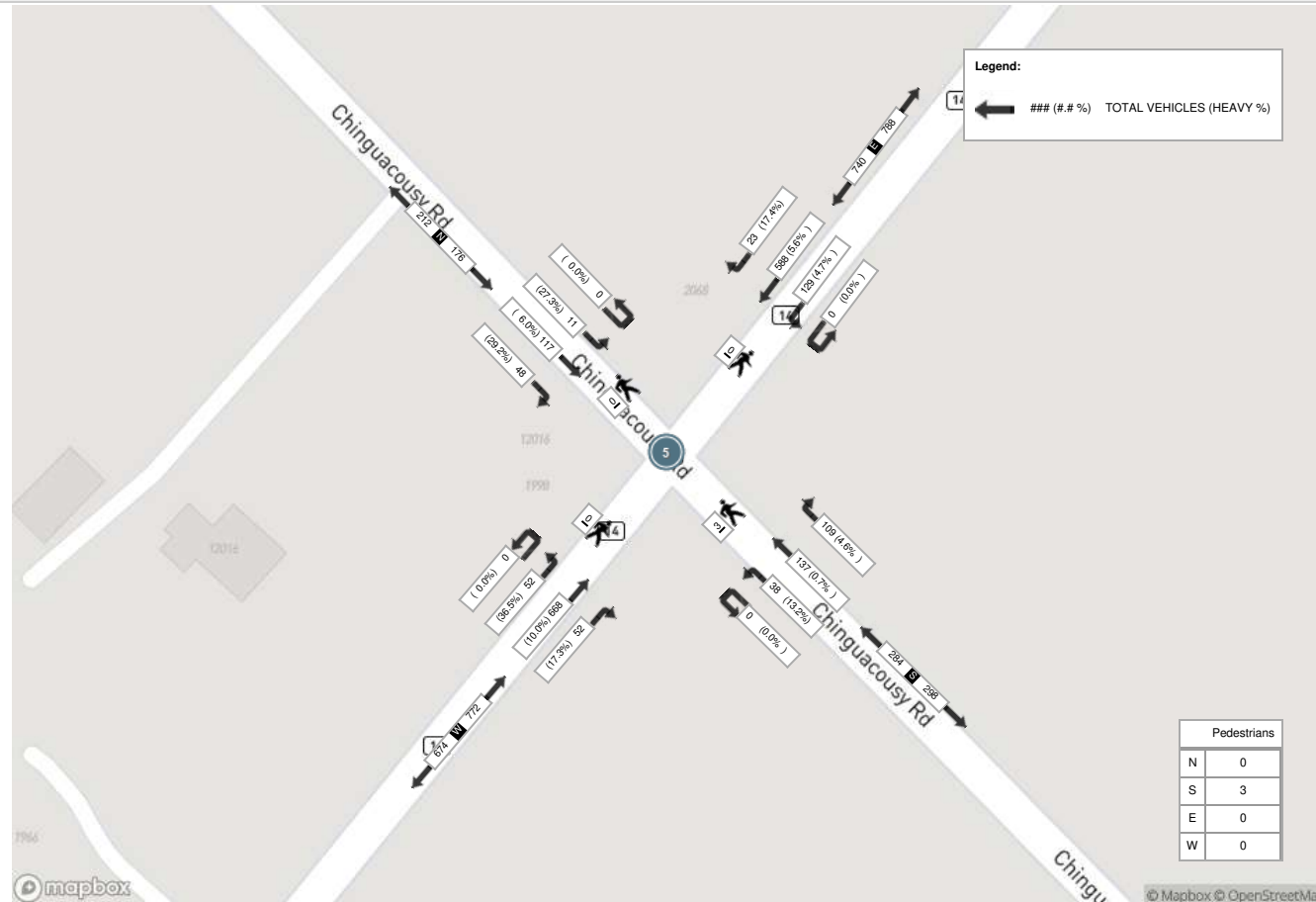
Peak Hour: 03:15 PM - 04:15 PM Weather: Overcast Clouds (14.32 °C)

Start Time	N Approach CHINGUACOUSY RD						E Approach MAYFIELD RD						S Approach CHINGUACOUSY RD						W 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	
15:15:00	14	23	4	0	0	41	5	154	35	0	0	194	33	47	13	0	3	93	16	170	10	0	0	196	524
15:30:00	8	30	3	0	0	41	3	140	28	0	0	171	31	34	8	0	0	73	10	162	16	0	0	188	473
15:45:00	14	28	2	0	0	44	6	153	32	0	0	191	24	32	10	0	0	66	15	174	17	0	0	206	507
16:00:00	12	36	2	0	0	50	9	141	34	0	0	184	21	24	7	0	0	52	11	162	9	0	0	182	468
Grand Total	48	117	11	0	0	176	23	588	129	0	0	740	109	137	38	0	3	284	52	668	52	0	0	772	1972
Approach%	27.3%	66.5%	6.3%	0%		-	3.1%	79.5%	17.4%	0%		-	38.4%	48.2%	13.4%	0%		-	6.7%	86.5%	6.7%	0%		-	-
Totals %	2.4%	5.9%	0.6%	0%		8.9%	1.2%	29.8%	6.5%	0%		37.5%	5.5%	6.9%	1.9%	0%		14.4%	2.6%	33.9%	2.6%	0%		39.1%	-
PHF	0.86	0.81	0.69	0		0.88	0.64	0.95	0.92	0		0.95	0.83	0.73	0.73	0		0.76	0.81	0.96	0.76	0		0.94	-
Heavy	14	7	3	0		24	4	33	6	0		43	5	1	5	0		11	9	67	19	0		95	-
Heavy %	29.2%	6%	27.3%	0%		13.6%	17.4%	5.6%	4.7%	0%		5.8%	4.6%	0.7%	13.2%	0%		3.9%	17.3%	10%	36.5%	0%		12.3%	-
Lights	34	110	8	0		152	19	555	123	0		697	104	136	33	0		273	43	601	33	0		677	-
Lights %	70.8%	94%	72.7%	0%		86.4%	82.6%	94.4%	95.3%	0%		94.2%	95.4%	99.3%	86.8%	0%		96.1%	82.7%	90%	63.5%	0%		87.7%	-
Single-Unit Trucks	11	0	1	0		12	0	11	0	0		11	1	0	0	0		1	1	17	13	0		31	-
Single-Unit Trucks %	22.9%	0%	9.1%	0%		6.8%	0%	1.9%	0%	0%		1.5%	0.9%	0%	0%	0%		0.4%	1.9%	2.5%	25%	0%		4%	-
Buses	3	7	2	0		12	4	17	6	0		27	3	1	5	0		9	8	35	5	0		48	-
Buses %	6.3%	6%	18.2%	0%		6.8%	17.4%	2.9%	4.7%	0%		3.6%	2.8%	0.7%	13.2%	0%		3.2%	15.4%	5.2%	9.6%	0%		6.2%	-
Articulated Trucks	0	0	0	0		0	0	5	0	0		5	1	0	0	0		1	0	15	1	0		16	-
Articulated Trucks %	0%	0%	0%	0%		0%	0%	0.9%	0%	0%		0.7%	0.9%	0%	0%	0%		0.4%	0%	2.2%	1.9%	0%		2.1%	-
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	-	-	-	-	-	3	-	-	-	-	-	0	-	-
Pedestrians%	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	100%	-	-	-	-	-	0%	-	-

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



Peak Hour: 03:15 PM - 04:15 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 10:05:40
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: rl.te Time Period: Day/Night 16/8 hours
Description: **R1 - Block 102 East Facade**

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

Car traffic volume : 21128/2348 veh/TimePeriod *
Medium truck volume : 738/82 veh/TimePeriod *
Heavy truck volume : 492/55 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): 22950
Percentage of Annual Growth : 2.00
Number of Years of Growth : 4.00
Medium Truck % of Total Volume : 3.30
Heavy Truck % of Total Volume : 2.20
Day (16 hrs) % of Total Volume : 90.00

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

Angle1 Angle2 : -90.00 deg 85.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 22.00 / 22.00 m
Receiver height : 7.50 / 7.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Chinguacousy (day)

Source height = 1.22 m

ROAD (0.00 + 67.50 + 0.00) = 67.50 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	85	0.49	71.16	0.00	-2.48	-1.19	0.00	0.00	0.00	67.50

Segment Leq : 67.50 dBA

Total Leq All Segments: 67.50 dBA

Results segment # 1: Chinguacousy (night)

Source height = 1.22 m

ROAD (0.00 + 60.98 + 0.00) = 60.98 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	85	0.49	64.64	0.00	-2.48	-1.19	0.00	0.00	0.00	60.98

Segment Leq : 60.98 dBA

Total Leq All Segments: 60.98 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 67.50
(NIGHT): 60.98