### **Environmental Noise Feasibility Study**

## **Argo Alloa BT**

### **Proposed Mixed-Use Development**

Town of Caledon

September 27, 2024 Project: 123-0368 TOWN OF CALEDON PLANNING RECEIVED

Dec 19, 2024

Prepared for

### **Argo Alloa (BT) Corporation**

Prepared by

Jane Hu, B.A.

Reviewed by

Seema Nagaraj, Ph.D., P.Eng



## **Version History**

Version #	Date	Comments
1.0	September 27, 2024	Final – Issued to Client

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### **Environmental Noise Feasibility Study**

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Town of Caledon

#### **EXECUTIVE SUMMARY**

Valcoustics Canada Ltd. (VCL) was retained to prepare an Environmental Noise Feasibility Study for the proposed mixed-use development in support of the Draft Plan of Subdivision application submission to the Town of Caledon.

The proposed development will consist of detached dwellings (Blocks 1 to 380), street townhouses (Blocks 381 to 398), rear lane townhouses (Blocks 399 to 404), and back-to-back townhouses (Block 405 to 408). The development will also have a stormwater management pond (Block 409), an environmental policy area (Block 410), two natural heritage system channel blocks (411 and 412), and residential reserve part blocks (Blocks 413 and 414) 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 31, 32, 402 to 405, and the residential reserve block 413).
  - ➤ The first row of detached dwellings and townhouse blocks from Black Horse Drive (Blocks 1 to 14, 67 to 75, 98, 99, 134, 135, 150, 151, 172 to 180, 193, 332, 368 to 380, 388, 389, and 398).

See Figure 2 for specific locations.

- Sound barriers 1.8 m in height are required at:
  - The dwellings with rear yards adjacent to Creditview Road and Blackhorse Drive (Blocks 14, 32, 98, 99, 134, 135, 150, 151, 193, 332, 389 and 398).

See Figure 2 for specific locations.

 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) has been retained to prepare an Environmental Noise Feasibility Study for the proposed mixed-use development in support of the Draft Plan of Subdivision application submission to the Town of Caledon.

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 natural heritage system (NHS) blocks.

Figure 1 shows a key plan.

This report was prepared using the Draft Plan of Subdivision, prepared by Glen Schnarr and Associates, dated August 8, 2024. The Draft Plan of Subdivision is included as Figure 2.

#### 1.2 THE PROPOSED DEVELOPMENT

The proposed development will consist of detached dwellings (Blocks 1 to 380), street townhouses (Blocks 381 to 398), rear lane townhouses (Blocks 399 to 404), and back-to-back townhouses (Block 405 to 408). The development will also have a stormwater management pond (Block 409), an environmental policy area (Block 410), two natural heritage system channel blocks (411 and 412), and residential reserve part blocks (Blocks 413 and 414) 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 Black Horse Drive. 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 correspondence is included as Appendix A.

Future (year 2044) traffic forecasts for the roadways were provided by the traffic consultant for this project. The forecasts were provided in the form of AM and PM peak hour Turning Movement Counts (TMCs). The 24-hour volume was calculated by multiplying the higher of the peak hour volumes by 10. (Note that Black Horse Drive corresponds to Street F in the traffic data.)

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 (such as Black Horse Drive). The speed limit on Creditview Road is 60 km/h.

TABLE 1	ROAD TRAFFIC DAT	Δ
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Roadway	Year	24-Hour Traffic	% Tru	ıcks <sup>(2)</sup>	Speed Limit	Day/Night
Roadway	i eai	Volume <sup>(1)</sup>	Medium	Heavy	(kph) <sup>(3)</sup>	Split (%)
Creditview Road	2044	10 460	3	2	60	90/10
Black Horse Drive	2044	3 170	3	2	50	90/10

#### Notes:

- (1) The year 2044 24-hour traffic volumes for both roadways were calculated from the 2044 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.
- (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 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 <u>Outdoors</u>

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

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

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 63/56 dBA are predicted to occur at receptor R6 (Block 32), representing the dwellings to adjacent to Creditview Road.

The highest unmitigated daytime OLA sound level of 59 dBA is predicted to occur at receptor R8 (Block 32), 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 <sup>(1)</sup>	Receptor <sup>(1)</sup>	Source	Distance (m) <sup>(2)</sup>	L <sub>eq Day</sub> (dBA)	L <sub>eq Night</sub> (dBA)
		Creditview Road	300	44	37
	R1 West Facade	Black Horse Drive	17	58	52
	Woot Facado	TOTAL	-	59	52
		Creditview Road	300	44	37
Block 99	R2 North Facade	Black Horse Drive	17	56	50
	rtorar r doddo	TOTAL	-	56	50
		Creditview Road	303	43	-
	R3 Rear Yard OLA	Black Horse Drive	20	56	-
		TOTAL		56	-
Block 50	R4 West Facade	Creditview Road	94	54	48
Block 50	R5 Rear Yard OLA	Creditview Road	98	51	-
	R6 West Facade	Creditview Road	25	63	56
Block 32	R7 South Facade	Creditview Road	25	60	53
	R8 Rear Yard OLA	Creditview Road	30	59	-
	R9 East Facade	Black Horse Drive	13	60	54
		Creditview Road	261	45	38
Block 1	R10 South Facade	Black Horse Drive	13	57	51
		TOTAL	-	58	51
	R11 Rear Yard OLA	Creditview Road	242	50	-
Block 15	R12 North Facade	Black Horse Drive	26	52	46
Block 134	R13 Rear Yard OLA	Black Horse Drive	19	56	-
Block 405	R14 West Facade	Creditview Road	37	60	53
Block 30	R15 South Facade	Creditview Road	48	55	49

#### 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.

The assessment shows that, for all dwellings in the development, 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.

#### 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 31, 32, 402 to 405, and the residential reserve block 413).
- The first row of detached dwellings and townhouse blocks from Black Horse Drive (Blocks 1 to 14, 67 to 75, 98, 99, 134, 135, 150, 151, 172 to 180, 193, 332, 368 to 380, 388, 389, and 398).

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 dwellings with rear yards adjacent to Creditview Road and Black Horse Drive are predicted to exceed 55 dBA.

At these dwellings (Blocks 14, 32, 98, 99, 134, 135, 150, 151, 193, 332, 389 and 398), 1.8 m high sound barriers will mitigate the daytime OLA sound levels to below the 55 dBA design objective and are recommended.

The sound barrier locations are shown on Figure 2.

#### 4.3.2.1 Notes about the sound barrier requirements

- The sound barrier at the northernmost unit on the west side of Black Horse Drive should tie
  into the sound barrier that will be required for the neighbouring dwelling in the adjacent
  development parcel to the north. Alternatively, the sound barrier could be returned along the
  rear (north) property line of the dwelling unit.
- 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/m². 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 <sup>(1)</sup>	Air Conditioning <sup>(2)</sup>	Exterior Wall	Exterior Window	Sound Barrier <sup>(1)(3)</sup>	Warning Clauses <sup>(4)</sup>
Block 14, 32, 98 <sup>(6)</sup> , 99, 134, 135, 150, 151, 193, and 332	Provision for adding.	No special acoustical requirements.	No special acoustical requirements.	1.8 m high at rear yard	A + B
Block 389 and 398	Provision for adding.	No special acoustical requirements.	No special acoustical requirements.	1.8 high at the easternmost rear yards	A + B
Block 1 to 13, 31, 67 to 75, 172 to 180, 368 to 380, 388, 402 to 405, and 413	Provision for adding.	No special acoustical requirements.	No special acoustical requirements.	Not required.	A + B
All other dwellings		No spec	cial acoustical re	quirements.	

#### 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) Where sound barriers are required at lots adjacent to future development blocks are required (such as at the northernmost unit on the west side of Black Horse Drive), the sound barrier should tie into the adjacent lot on the development to the north.
- (6) A sound barrier is required at Block 98, with an OLA siding onto Black Horse Drive. The sound barrier at this lot should tie into the future residential block.
- (7) All exterior doors shall be fully weather-stripped.

#### 5.0 CONCLUSIONS

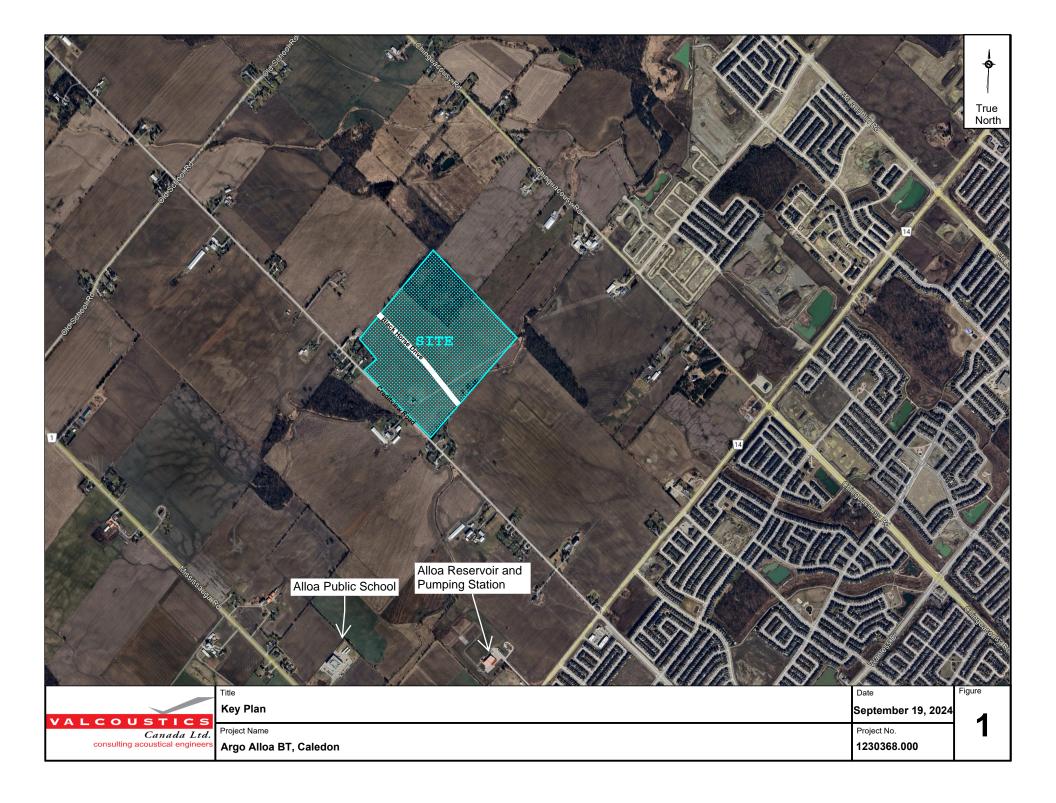
With the incorporation of the recommended noise mitigation measures, the applicable Town of Caledon, Peel Region and MECP noise guidelines can be met and a suitable acoustical environment provided for the occupants.

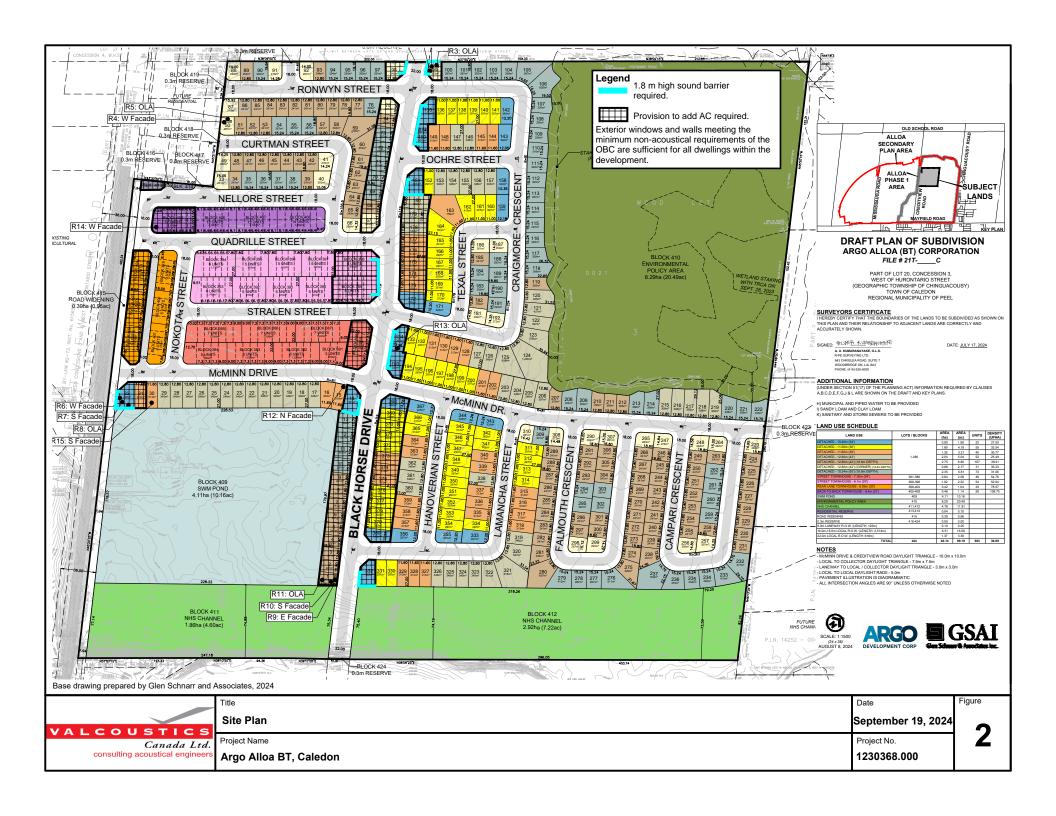
The approvals and administrative procedures are available to ensure that the noise requirements are implemented.

#### 6.0 REFERENCES

- 1. PC STAMSON 5.04, "Computer Program for Road Traffic Noise Assessment", Ontario Ministry of the Environment.
- 2. "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.

JH\sk Alloa BT, Caledon - Noise v1 0 Fnl





# APPENDIX A TRAFFIC DATA CORRESPONDENCE

#### Jane Hu

From: Aidan Hallsworth <a hallsworth@cfcrozier.ca>

**Sent:** Wednesday, June 19, 2024 2:56 PM **To:** Jane Hu; My-Linh Yee; Seema Nagaraj

**Cc:** Alexander Fleming; Zechariah Bouchard; Jason Afonso; Michael Linton

**Subject:** RE: Alloa Secondary Plan Traffic Data

**Attachments:** 2024.06.19 Alloa Secondary Plan 2044 Future Total Volumes.xlsx

Good afternoon Jane,

Our expectation is that the speed limits on the future internal roadways to be 50 km/h for collector roadways and 40 km/h for local roads. Tim Manley Avenue is expected to be 60 km/h.

In addition, there are speed limit changes outlined by the Town of Caledon Transportation Master Plan for the future, we have listed these below (these are for the segments north of Mayfield Road) just in case you might need them:

Chinguacousy Road – 60km/h Creditview Road – 60km/h

We also note that there has been a minor update to the 2044 volume projection, with the updated values attached to this email.

Any questions, please let us know.

Thanks,

#### **Aidan Hallsworth**, EIT

Engineering Intern, Transportation

Office: 905.693.4712

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From: Jane Hu <jhu@valcoustics.com> Sent: Tuesday, June 18, 2024 3:53 PM

To: My-Linh Yee <myee@cfcrozier.ca>; Seema Nagaraj <seema@valcoustics.com>

 $\textbf{Cc:} \ A lexander \ Fleming < a fleming @ cfcrozier.ca>; \ A idan \ Hallsworth < a hallsworth @ cfcrozier.ca>; \ Zechariah \ Bouchard = a hallsworth & a$ 

<zechariahb@gsai.ca>; Jason Afonso <jasona@gsai.ca>; Michael Linton <mlinton@cfcrozier.ca>

Subject: RE: Alloa Secondary Plan Traffic Data

Hi My-Linh,

Thank you for the data. For our analysis, we also need the posted speed limits of the roadways. What do you currently expect the posted speed limits on the internal roadways to be?

Thank you, Jane Hu



30 Wertheim Court, Unit 25 Richmond Hill, Ontario Canada L4B 1B9 Tel: 905-764-5223 ext. 233 Fax: 905-764-6813 solutions@valcoustics.com

From: My-Linh Yee < <a href="myee@cfcrozier.ca">myee@cfcrozier.ca</a> Sent: Tuesday, June 18, 2024 10:00 AM

To: Seema Nagaraj <seema@valcoustics.com>

Cc: Alexander Fleming <afleming@cfcrozier.ca>; Aidan Hallsworth <ahallsworth@cfcrozier.ca>; Zechariah Bouchard

<zechariahb@gsai.ca>; Jason Afonso <jasona@gsai.ca>; Michael Linton <mlinton@cfcrozier.ca>; Jane Hu

<jhu@valcoustics.com>

Subject: RE: Alloa Secondary Plan Traffic Data

Hi Seema,

I have attached the TMCs that we conducted in June for **additional intersections**. As for the TMCs provided in May, they are the most recent counts for those intersections, which are also reattached.

Let me know if you have any further questions.

Thanks, My-Linh

My-Linh Yee, EIT

Engineering Intern, Transportation

Office: 905.876.7159

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From: Seema Nagaraj <seema@valcoustics.com>

**Sent:** Tuesday, June 18, 2024 9:32 AM

**To:** My-Linh Yee < <a href="mailto:myee@cfcrozier.ca">myee@cfcrozier.ca</a>; Michael Linton < <a href="mailto:mlinton@cfcrozier.ca">mlinton@cfcrozier.ca</a>; Jane Hu < <a href="mailto:jhu@valcoustics.com">jhu@valcoustics.com</a></a> **Cc:** Alexander Fleming < <a href="mailto:afleming@cfcrozier.ca">afleming@cfcrozier.ca</a>; Aidan Hallsworth < <a href="mailto:ahallsworth@cfcrozier.ca">ahallsworth@cfcrozier.ca</a>; Zechariah Bouchard

<zechariahb@gsai.ca>; Jason Afonso <jasona@gsai.ca>

Subject: RE: Alloa Secondary Plan Traffic Data

Hi My-Linh,

Thank you for sending the data.

Can you please also TMCs provided in May (attached fore reference) are the latest set of current counts?

Thank you,

Seema Nagaraj, Ph.D., P.Eng. Acoustical Engineer



30 Wertheim Court, Unit 25 Richmond Hill, Ontario Canada L4B 1B9 Tel: 905-764-5223 ext. 243 Fax: 905-764-6813 solutions@valcoustics.com

From: My-Linh Yee <myee@cfcrozier.ca>

Sent: June 17, 2024 11:49 PM

To: Michael Linton <mlinton@cfcrozier.ca>; Jane Hu <jhu@valcoustics.com>

**Cc:** Alexander Fleming <afleming@cfcrozier.ca>; Aidan Hallsworth <a href="mailto:ahallsworth@cfcrozier.ca">ahallsworth@cfcrozier.ca</a>; Seema Nagaraj

<seema@valcoustics.com>; Zechariah Bouchard <zechariahb@gsai.ca>; Jason Afonso <jasona@gsai.ca>

Subject: RE: Alloa Secondary Plan Traffic Data

Hi Jane,

Please see the attached 2044 Future Total Volumes, which include the entire Secondary Plan area. It is noted that there may be some minor changes, but these should be adequate for your review.

We will advise you if there are any major changes in these volumes. Let me know if you have any questions.

Thanks, My-Linh

My-Linh Yee, EIT

Engineering Intern, Transportation

Office: 905.876.7159

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From: Michael Linton <<u>mlinton@cfcrozier.ca</u>>
Sent: Monday, June 17, 2024 12:11 PM
To: Jane Hu <jhu@valcoustics.com>

**Cc:** Alexander Fleming <afleming@cfcrozier.ca>; My-Linh Yee <myee@cfcrozier.ca>; Aidan Hallsworth

<a href="mailto:<a href="mailto:seema@valcoustics.com">ahallsworth@cfcrozier.ca">seema@valcoustics.com</a>

Subject: RE: Alloa Secondary Plan Traffic Data

Thanks Jane and will do.

We can provide the growth rates for the relevant roadways that you can use on the corridor for the 2044 Volumes and beyond if needed in that case.

Thanks,

Mike

**Michael Linton**, M.A.Sc., P.Eng. | Associate Senior Project Manager, Transportation DID: 905.693.7849 | Cell: 289.892.7050

From: Jane Hu < jhu@valcoustics.com>
Sent: Monday, June 17, 2024 12:00 PM
To: Michael Linton < mlinton@cfcrozier.ca>

Cc: Alexander Fleming <afleming@cfcrozier.ca>; My-Linh Yee <myee@cfcrozier.ca>; Aidan Hallsworth

<a href="mailto:<a href="mailto:seema@valcoustics.com">ahallsworth@cfcrozier.ca">seema@valcoustics.com</a>

Subject: RE: Alloa Secondary Plan Traffic Data

Hi Michael,

Thanks for the email. Yes, confirming we are looking for the future total traffic volume forecasts with the full site build out.

The Town of Caledon requires noise analyses to be based on 20-year forecasts. Would these volumes also represent the 2044 condition, or should we project the data for an additional 3 years? If we need to project the data, what is a suitable growth rate to use?

I believe we have already received the current year turning movement count showing truck volumes at the beginning of May. Could you also please resend the data to ensure that we have the most current full set?

Thank you,



30 Wertheim Court, Unit 25 Richmond Hill, Ontario Canada L4B 1B9 Tel: 905-764-5223 ext. 233 Fax: 905-764-6813 solutions@valcoustics.com

From: Michael Linton < mlinton@cfcrozier.ca>

Sent: Monday, June 17, 2024 11:40 AM To: Jane Hu < jhu@valcoustics.com>

Cc: Alexander Fleming <afleming@cfcrozier.ca>; My-Linh Yee <myee@cfcrozier.ca>; Aidan Hallsworth

<ahallsworth@cfcrozier.ca>

Subject: Alloa Secondary Plan Traffic Data

Hi Jane,

As we finalize our forecasts and check against our model results, we wanted to confirm specifically the info you'll need from us for your work?

Would you only need our 2041 Future Total Volume Forecasts?

Thanks,

Mike

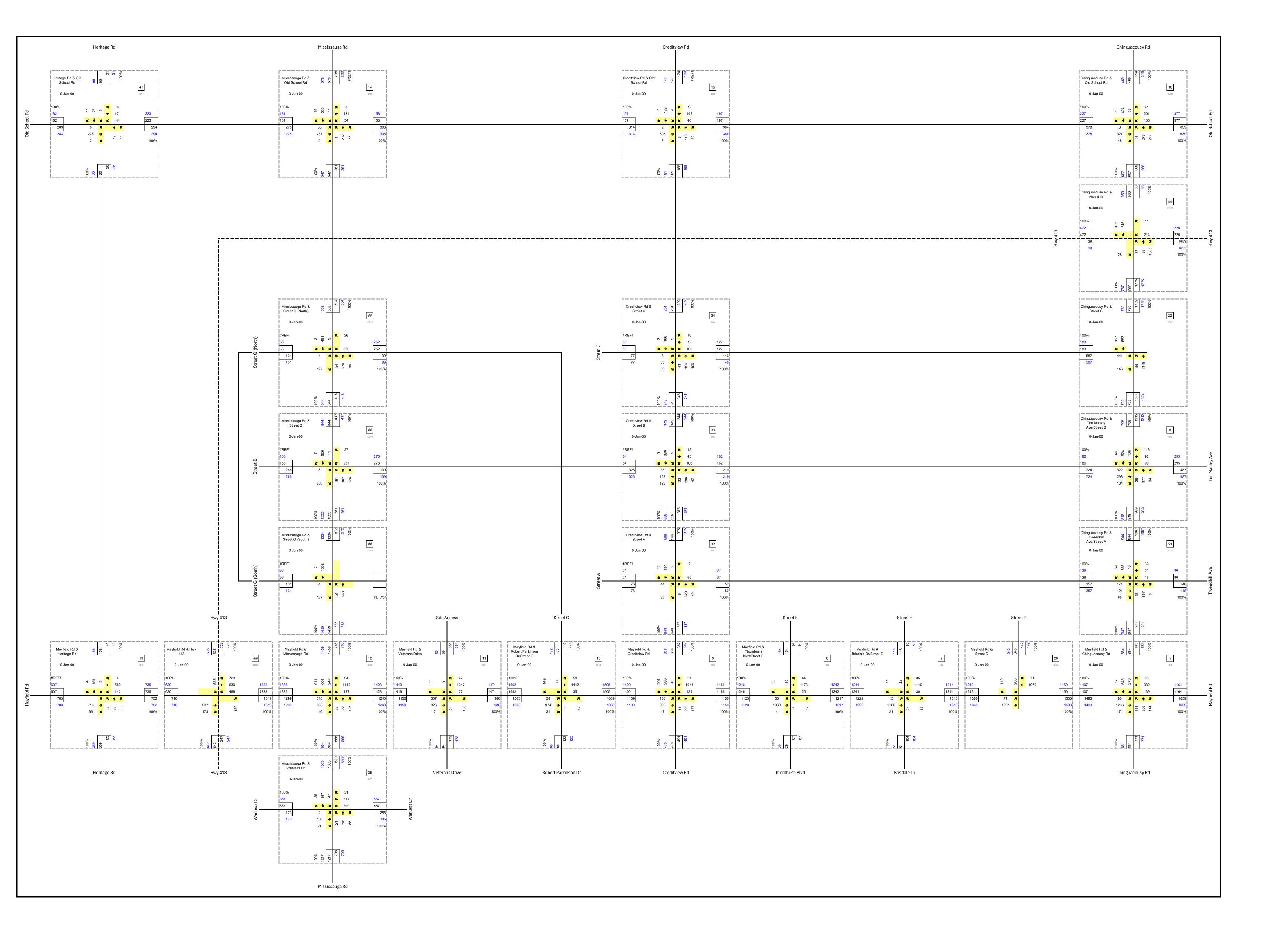
**Michael Linton**, M.A.Sc., P.Eng. | Associate Senior Project Manager, Transportation Office: 905.693.7849

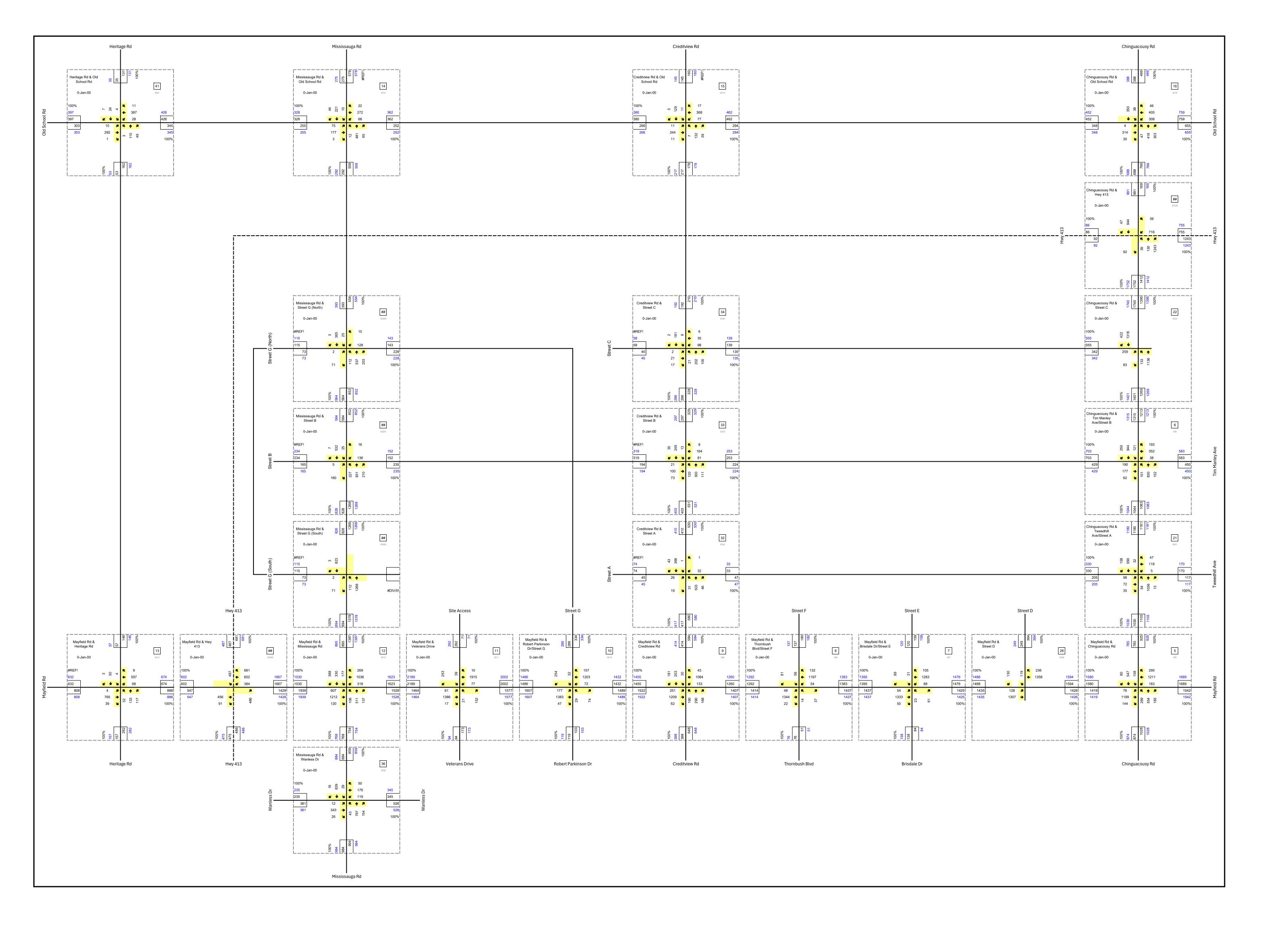
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# Turning Movement Count Location Name: CHINGUACOUSY RD & TIM MANLEY AVE Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

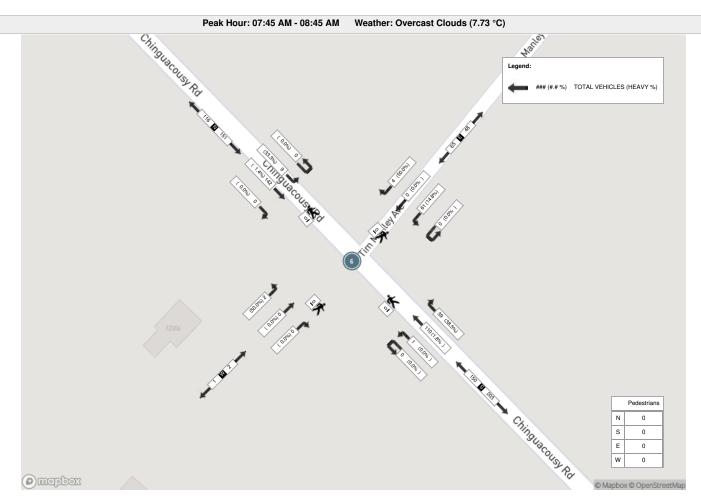
									Tu	urning N	Movem	ent Count (6 . C	HINGUA	COUSY	RD &	TIM MA	NLEY	AVE)								
			CH	N Approa	ch JSY RD				т	E Approad	ch / AVE				СН	S Approac	:h SY RD				V	W Approa	ch EWAY		Int. Total (15 min)	Int. Total (1 hr)
Start Time	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach Total	Right E:N	Thru E:W	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	0	3	1	0	0	4	0	0	9	0	0	9	1	19	0	0	0	20	0	0	0	0	0	0	33	
06:15:00	0	11	0	0	0	11	1	0	4	0	0	5	4	32	0	0	0	36	0	0	0	0	0	0	52	
06:30:00	0	6	2	0	0	8	3	0	5	0	0	8	7	23	0	0	0	30	0	0	0	0	0	0	46	
06:45:00	0	15	5	0	0	20	0	0	6	0	0	6	6	24	0	0	0	30	0	0	0	0	0	0	56	187
07:00:00	0	9	2	0	0	11	2	0	14	0	0	16	15	28	0	0	0	43	0	0	0	0	0	0	70	224
07:15:00	1	20	4	0	0	25	0	0	7	0	0	7	7	27	0	0	0	34	0	0	0	0	0	0	66	238
07:30:00	0	21	2	0	0	23	0	0	11	0	0	11	8	25	0	0	0	33	0	0	0	0	0	0	67	259
07:45:00	0	47	1	0	0	48	2	0	13	0	0	15	0	34	0	0	0	34	0	0	1	0	0	1	98	301
08:00:00	0	35	1	0	0	36	0	0	12	0	0	12	14	24	1	0	0	39	0	0	0	0	0	0	87	318
08:15:00	0	31	1	0	0	32	0	0	16	0	0	16	13	32	0	0	0	45	0	0	1	0	0	1	94	346
08:30:00	0	29	6	0	0	35	2	0	20	0	0	22	12	20	0	0	0	32	0	0	0	0	0	0	89	368
08:45:00	1	17	0	0	0	18	3	0	17	0	0	20	14	22	0	0	0	36	0	0	0	0	0	0	74	344
09:00:00	0	9	2	0	0	11	2	0	8	0	0	10	17	23	0	0	0	40	0	0	1	0	0	1	62	319
09:15:00	0	14	0	0	0	14	0	0	5	0	0	5	9	18	0	0	0	27	0	0	0	0	0	0	46	271
09:30:00	0	8	0	0	0	8	5	0	9	0	0	14	6	15	0	0	0	21	0	0	0	0	0	0	43	225
09:45:00	0	9	0	0	0	9	2	0	12	0	2	14	14	25	0	0	0	39	0	0	0	0	0	0	62	213
***BREAK	***																									
15:00:00	0	25	0	0	0	25	1	0	9	0	0	10	4	27	0	0	0	31	0	0	0	0	0	0	66	
15:15:00	0	25	5	0	0	30	1	0	15	0	0	16	23	40	0	0	0	63	0	0	0	0	0	0	109	
15:30:00	0	27	2	0	0	29	2	0	10	0	0	12	15	37	0	0	0	52	0	0	0	0	0	0	93	
15:45:00	0	36	5	0	0	41	1	0	13	0	0	14	26	28	0	0	0	54	0	0	0	0	0	0	109	377
16:00:00	0	31	1	0	0	32	2	0	17	0	0	19	7	35	0	0	0	42	0	0	0	0	0	0	93	404
16:15:00	0	32	0	0	0	32	0	0	13	0	0	13	3	24	0	0	0	27	0	0	0	0	0	0	72	367
16:30:00	1	35	1	0	0	37	1	0	12	0	0	13	10	35	0	0	0	45	0	0	2	0	0	2	97	371
16:45:00	0	30	2	0	0	32	3	0	14	0	0	17	14	23	0	0	0	37	0	0	1	0	0	1	87	349
17:00:00	0	47	2	0	0	49	4	0	14	0	0	18	16	30	0	0	0	46	0	0	0	0	0	0	113	369
17:15:00	0	35	1	0	0	36	1	0	14	0	0	15	12	20	0	0	0	32	0	0	0	0	0	0	83	380
17:30:00	0	50	4	0	0	54	1	0	9	0	0	10	14	27	0	0	0	41	0	0	0	0	0	0	105	388
17:45:00	0	46	0	0	0	46	1	0	7	0	0	8	17	29	0	0	0	46	0	0	0	0	0	0	100	401
18:00:00	1	33	0	0	0	34	0	0	13	0	0	13	16	24	0	0	0	40	0	0	0	0	0	0	87	375
18:15:00	0	32	2	0	0	34	0	0	7	0	0	7	17	23	0	0	0	40	1	0	0	0	0	1	82	374
18:30:00	0	25	2	0	0	27	0	0	15	0	0	15	15	24	0	0	0	39	0	0	0	0	0	0	81	350
18:45:00	0	35	0	0	0	35	1	0	13	0	0	14	13	24	0	0	0	37	0	0	0	0	0	0	86	336
Grand Total	4	828	54	0	0	886	41	0	363	0	2	404	369	841	1	0	0	1211	1	0	6	0	0	7	2508	-
Approach%	0.5%	93.5%	6.1%	0%		-	10.1%	0%	89.9%	0%		-	30.5%	69.4%	0.1%	0%		-	14.3%	0%	85.7%	0%		-	-	-
Totals %	0.2%	33%	2.2%	0%		35.3%	1.6%	0%	14.5%	0%		16.1%	14.7%	33.5%	0%	0%		48.3%	0%	0%	0.2%	0%		0.3%	-	-
Heavy	0	20	9	0		-	8	0	57	0		-	56	19	0	0		-	0	0	1	0		-	-	-
Heavy %	0%	2.4%	16.7%	0%		-	19.5%	0%	15.7%	0%		-	15.2%	2.3%	0%	0%		-	0%	0%	16.7%	0%		-	-	-
Bicycles	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	•	-
Bicycle %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

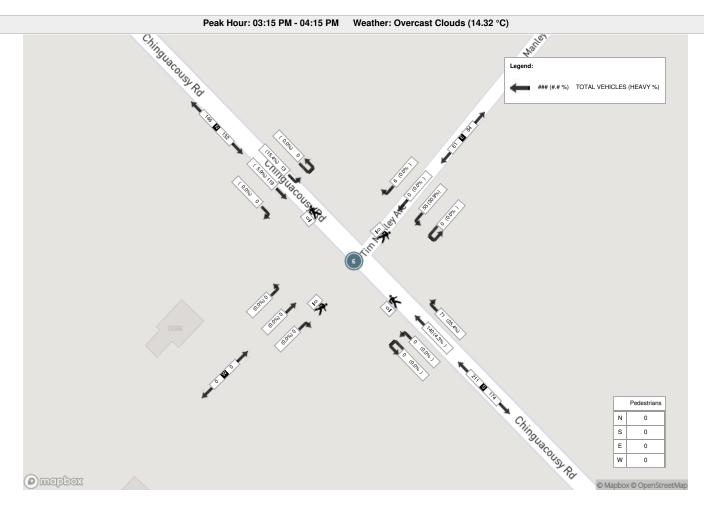
# Turning Movement Count Location Name: CHINGUACOUSY RD & TIM MANLEY AVE Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

								Pe	ak Houi	: 07:45	AM - 0	8:45 AM Wea	tner: Ov	ercast (	Clouds	(7.73 °C	<b>3</b> )								
Start Time			CH	N Approac	h SY RD				1	E Approa	nch Y AVE				СН	S Approac	ch ISY RD					W Appro WEST DRIV	ach 'EWAY		Int. Tota (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	0	47	1	0	0	48	2	0	13	0	0	15	0	34	0	0	0	34	0	0	1	0	0	1	9
08:00:00	0	35	1	0	0	36	0	0	12	0	0	12	14	24	1	0	0	39	0	0	0	0	0	0	
08:15:00	0	31	1	0	0	32	0	0	16	0	0	16	13	32	0	0	0	45	0	0	1	0	0	1	
08:30:00	0	29	6	0	0	35	2	0	20	0	0	22	12	20	0	0	0	32	0	0	0	0	0	0	
Grand Total	0	142	9	0	0	151	4	0	61	0	0	65	39	110	1	0	0	150	0	0	2	0	0	2	
Approach%	0%	94%	6%	0%		-	6.2%	0%	93.8%	0%		-	26%	73.3%	0.7%	0%		-	0%	0%	100%	0%		-	
Totals %	0%	38.6%	2.4%	0%		41%	1.1%	0%	16.6%	0%		17.7%	10.6%	29.9%	0.3%	0%		40.8%	0%	0%	0.5%	0%		0.5%	
PHF	0	0.76	0.38	0		0.79	0.5	0	0.76	0		0.74	0.7	0.81	0.25	0		0.83	0	0	0.5	0		0.5	
Heavy	0	2	3	0		5	2	0	9	0		11	15	2	0	0		17	0	0	1	0		1	
Heavy %	0%	1.4%	33.3%	0%		3.3%	50%	0%	14.8%	0%		16.9%	38.5%	1.8%	0%	0%		11.3%	0%	0%	50%	0%		50%	
Lights	0	140	6	0		146	2	0	52	0		54	24	108	1	0		133	0	0	1	0		1	
Lights %	0%	98.6%	66.7%	0%		96.7%	50%	0%	85.2%	0%		83.1%	61.5%	98.2%	100%	0%		88.7%	0%	0%	50%	0%		50%	
ingle-Unit Trucks	0	0	1	0		1	1	0	7	0		8	12	0	0	0		12	0	0	1	0		1	
ngle-Unit Trucks %	0%	0%	11.1%	0%		0.7%	25%	0%	11.5%	0%		12.3%	30.8%	0%	0%	0%		8%	0%	0%	50%	0%		50%	
Buses	0	2	2	0		4	0	0	2	0		2	3	2	0	0		5	0	0	0	0		0	
Buses %	0%	1.4%	22.2%	0%		2.6%	0%	0%	3.3%	0%		3.1%	7.7%	1.8%	0%	0%		3.3%	0%	0%	0%	0%		0%	
rticulated Trucks	0	0	0	0		0	1	0	0	0		1	0	0	0	0		0	0	0	0	0		0	
ticulated Trucks %	0%	0%	0%	0%		0%	25%	0%	0%	0%		1.5%	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	
icycles 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	=	

# Turning Movement Count Location Name: CHINGUACOUSY RD & TIM MANLEY AVE Date: Tue, Apr 23, 2024 Deployment Lead: David Chu

								Pea	K Hour:	03:15 P	M - 04:1	15 PM Weathe	er: Over	ast Clo	uas (1	4.32 °C	)								
Start Time			CH	N Approad	ch ISY RD					E Approa	ch Y AVE				СН	S Approa	ch JSY RD					W Appr WEST DRI	oach VEWAY		Int. T (15 n
	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	0	25	5	0	0	30	1	0	15	0	0	16	23	40	0	0	0	63	0	0	0	0	0	0	1
15:30:00	0	27	2	0	0	29	2	0	10	0	0	12	15	37	0	0	0	52	0	0	0	0	0	0	
15:45:00	0	36	5	0	0	41	1	0	13	0	0	14	26	28	0	0	0	54	0	0	0	0	0	0	
16:00:00	0	31	1	0	0	32	2	0	17	0	0	19	7	35	0	0	0	42	0	0	0	0	0	0	
Grand Total	0	119	13	0	0	132	6	0	55	0	0	61	71	140	0	0	0	211	0	0	0	0	0	0	Ì
Approach%	0%	90.2%	9.8%	0%		-	9.8%	0%	90.2%	0%		-	33.6%	66.4%	0%	0%		-	0%	0%	0%	0%		-	
Totals %	0%	29.5%	3.2%	0%		32.7%	1.5%	0%	13.6%	0%		15.1%	17.6%	34.7%	0%	0%		52.2%	0%	0%	0%	0%		0%	
PHF	0	0.83	0.65	0		0.8	0.75	0	0.81	0		0.8	0.68	0.88	0	0		0.84	0	0	0	0		0	
Heavy	0	7	2	0		9		0	17	0		17	18	6	0	0		24		0	0	0		0	
Heavy %	0%	5.9%	15.4%	0%		6.8%	0%	0%	30.9%	0%		27.9%	25.4%	4.3%	0%	0%		11.4%	0%	0%	0%	0%		0%	
Lights	0	112	11	0		123	6	0	38	0		44	53	134	0	0		187		0	0	0		0	
Lights %	0%	94.1%	84.6%	0%		93.2%	100%	0%	69.1%	0%		72.1%	74.6%	95.7%	0%	0%		88.6%	0%	0%	0%	0%		0%	
ingle-Unit Trucks	0	0	0	0		0	0	0	12	0		12	13	0	0	0		13	0	0	0	0		0	
ngle-Unit Trucks %	0%	0%	0%	0%		0%	0%	0%	21.8%	0%		19.7%	18.3%	0%	0%	0%		6.2%	0%	0%	0%	0%		0%	
Buses	0	7	2	0		9	0	0	5	0		5	5	5	0	0		10	0	0	0	0		0	
Buses %	0%	5.9%	15.4%	0%		6.8%	0%	0%	9.1%	0%		8.2%	7%	3.6%	0%	0%		4.7%	0%	0%	0%	0%		0%	
Articulated Trucks	0	0	0	0		0	0	0	0	0		0	0	1	0	0		1	0	0	0	0		0	
ticulated Trucks %	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%	0%	0.7%	0%	0%		0.5%	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	
icycles 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	-	





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

#### Turning Movement Count (7 . MAYFIELD RD & BRISDALE DR) CustID: 01420005 E Approach S Approach W Approach Int. Total Int. Total MAYFIELD RD BRISDALE DR MAYFIELD RD (15 min) (1 hr) Start Time UTurn Right UTurn Right Thru UTurn Thru Left Peds Left Peds Peds Approach Total Approach Total Approach Total E:W E:S E:E E: S:E S:W S:S S: W:S W:E W:W W: 06:00:00 06:15:00 06:30:00 06:45:00 07:00:00 07:15:00 07:30:00 07:45:00 08:00:00 08:15:00 08:30:00 08:45:00 09:00:00 09:15:00 09:30:00 09:45:00 \*\*\*BREAK\*\*\* 15:00:00 15:15:00 15:30:00 15:45:00 16:00:00 16:15:00 16:30:00



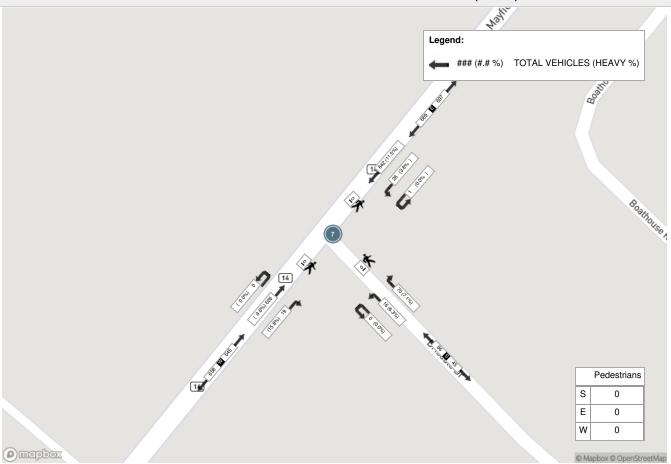
Grand Total	4333	374	1	1	4708	481	128	1	1	610	183	4804	0	0	4987	10305	-
Approach%	92%	7.9%	0%		-	78.9%	21%	0.2%		-	3.7%	96.3%	0%		-		-
Totals %	42%	3.6%	0%		45.7%	4.7%	1.2%	0%		5.9%	1.8%	46.6%	0%		48.4%	-	-
Heavy	291	9	0		-	16	11	0		-	9	296	0		-	-	-
Heavy %	6.7%	2.4%	0%		-	3.3%	8.6%	0%		-	4.9%	6.2%	0%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

					Peak Hour: 08:	15 AM - 0	9:15 AM	Weath	er: Over	cast Clouds (7.73	°C)					
Start Time				oroach IELD RD				<b>S App</b> BRISD	roach ALE DR					proach ELD RD		Int. Tota (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	8.0	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	<u>-</u>
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 - 0	4:00 PM	Weathe	er: Over	cast Clouds (14.32	2 °C)					
Start Time				proach IELD RD		<b>S Approach</b> BRISDALE DR						<b>W Approach</b> MAYFIELD RD				
	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	<u>-</u>
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%		-

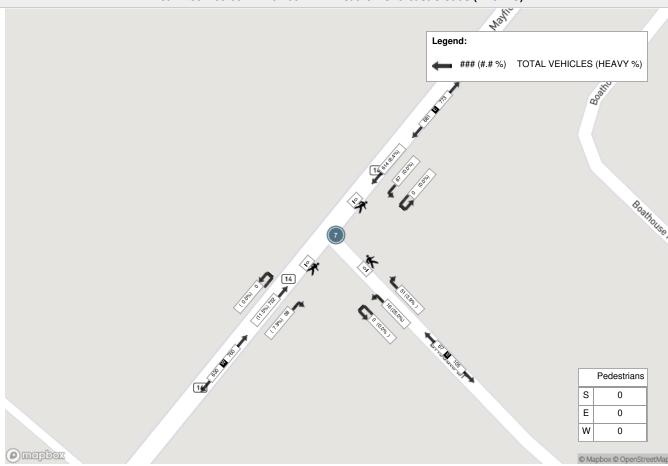
Crozier & Associates ACCOUNTS PAYABLE TORONTO - SELECT PROVINCE -, M1W1Y6 - SELECT COUNTRY -

#### 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)



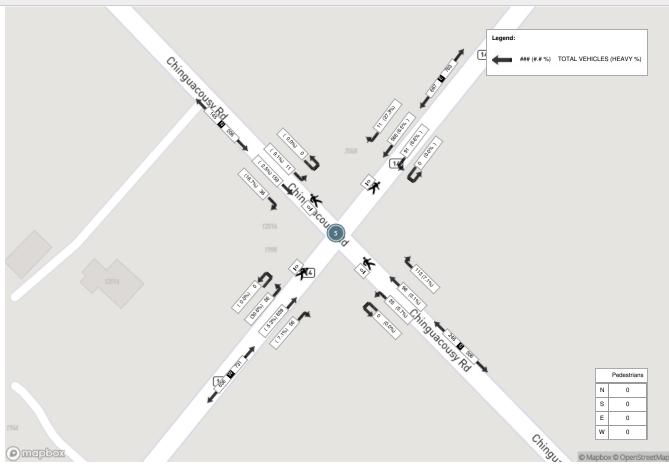
								Tui	rning M	loveme	nt Coui	nt (5 . MAYFIELI	D RD &	CHING	UACOL	JSY RD)	Cust	tID: 01419287								
			CHI	N Approac	ch ISY RD					E Approac	:h RD				CH	S Approad	ch SY RD					W Approac	c <b>h</b> RD		Int. Total (15 min)	Int. Total (1 hr)
Start Time	Right N:W	Thru N:S	Left N:E	UTurn N:N	Peds N:	Approach 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 %	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-	-	-		-	-	-

								Pea	k Hour	: 07:45	AM - 0	B:45 AM Wea	ther: O	vercast	Clouds	(7.73°	C)								
Start Time			CHII	N Approact	h SY RD				ı	E Approac	<b>h</b> RD				CHI	S Approac	h SY RD					W Approach	n RD		Int. To (15 mi
	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	46
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	46
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	185
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 Pedestrians%	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0 0%	-	-	-	-	-	0	-	

								Pea	k Hour	: 03:15	PM - 04	1:15 PM Wea	ther: Ov	ercast	Clouds	(14.32 °	C)								
Start Time			CHII	N Approact	h SY RD					E Approac	h RD				CHI	S Approac	h SY RD					W Approac MAYFIELD F	h RD		Int. Tota (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%	<del>.</del> .
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	-	-

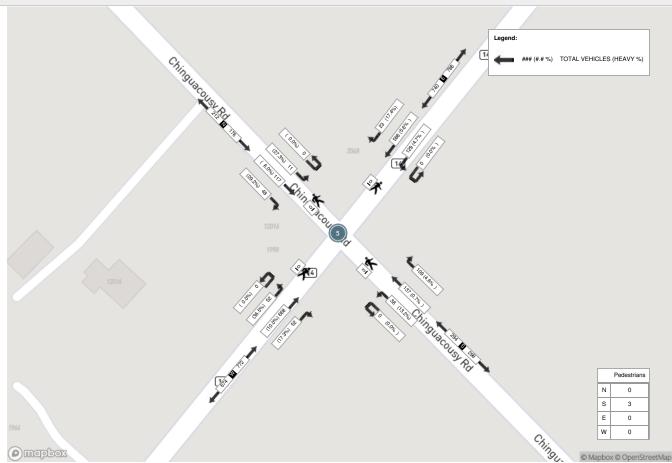


Peak Hour: 07:45 AM - 08:45 AM Weather: Overcast Clouds (7.73 °C)





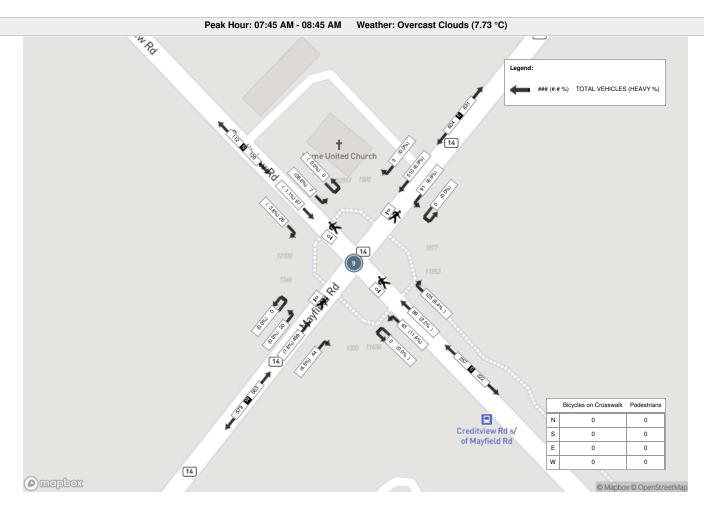
Peak Hour: 03:15 PM - 04:15 PM Weather: Overcast Clouds (14.32 °C)



								Τι	ırning l	Moveme	ent Cou	unt (9 . MAYFIEI	D RD 8	& CREE	)ITVIE\	W RD)	CustID	D: 01420659								
			CI	N Approac	:h / BD				C	S Approac	:h / BD					W Approa	ach					E Approac	:h BD		Int. Total (15 min)	Int. Total (1 hr)
Start Time	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: 0	7:45 AN	/I - 08:4	5 AM Weath	er: Ove	rcast C	louds (	7.73 °C	)								
Start Time			C	N Approac REDITVIEW	h / RD				CF	S Approac REDITVIEW	h / RD					W Approac	:h RD					E Approac	ch 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	<u>-</u>	1	2	0		4	8					15	2	39				41		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			242	42	460	20			522		— – – – – 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%		-

								Pea	k Hour:	03:00 F	PM - 04:	00 PM Weath	ner: Ove	ercast (	Clouds	(14.32 °	C)								
Start Time			C	N Approac	th V RD					S Approa	ch W RD					W Approa	ch RD					E Approac	h 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%		-





					Turning Movem	ent Coun	t (10 . IVI)				,						
a <del></del>				proach IELD RD			F	S App OBERT PA	oroach RKINSON	DR			W Ap MAYF	proach IELD RD		Int. Total (15 min)	Int. Tota (1 hr)
Start Time	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	74	6	0	0	80	16	6	0	0	22	1	51	0	0	52	154	
06:15:00	87	5	0	0	92	14	7	0	0	21	2	65	0	0	67	180	
06:30:00	138	6	0	0	144	9	6	0	0	15	1	89	0	0	90	249	
06:45:00	118	7	0	0	125	14	8	0	0	22	0	66	0	0	66	213	796
07:00:00	110	7	0	0	117	22	6	0	0	28	4	107	0	0	111	256	898
07:15:00	113	4	0	0	117	21	3	0	0	24	3	110	0	0	113	254	972
07:30:00	112	3	0	0	115	16	5	0	0	21	5	115	0	0	120	256	979
07:45:00	124	4	0	0	128	15	10	0	0	25	4	126	0	0	130	283	1049
08:00:00	153	7	0	0	160	17	4	0	0	21	2	121	0	0	123	304	1097
08:15:00	141	10	0	0	151	24	7	0	0	31	8	144	0	0	152	334	1177
08:30:00	140	7	0	0	147	26	7	0	0	33	5	104	0	0	109	289	1210
08:45:00	161	7	0	0	168	19	7	0	0	26	5	86	0	0	91	285	1212
09:00:00	168	10	0	0	178	19	9	0	0	28	12	127	0	0	139	345	1253
09:15:00	112	6	0	0	118	14	2	0	0	16	5	113	0	0	118	252	1171
09:30:00	95	8	0	0	103	10	2	0	0	12	3	87	0	0	90	205	1087
09:45:00	87	8	0	0	95	25	4	0	0	29	5	93	0	0	98	222	1024
***BREAK	(***																
15:00:00	129	9	0	0	138	19	9	0	0	28	9	148	0	0	157	323	
15:15:00	126	17	0	0	143	20	10	0	0	30	12	141	0	0	153	326	
15:30:00	128	17	0	0	145	15	3	0	0	18	9	182	0	0	191	354	
15:45:00	121	24	0	0	145	17	5	0	0	22	16	185	0	0	201	368	1371
16:00:00	106	29	0	0	135	12	1	0	0	13	12	146	0	0	158	306	1354
16:15:00	111	11	0	0	122	21	6	0	0	27	4	131	0	0	135	284	1312
16:30:00	119	20	0	0	139	17	7	0	0	24	7	134	0	0	141	304	1262
16:45:00	108	14	0	0	122	18	6	0	0	24	8	147	0	0	155	301	1195
17:00:00	108	18	0	0	126	23	5	0	0	28	5	141	0	0	146	300	1189
17:15:00	107	19	0	0	126	10	2	0	0	12	11	165	0	0	176	314	1219
17:30:00	99	16	0	0	115	19	11	0	0	30	8	169	0	0	177	322	1237
17:45:00	110	14	0	0	124	9	10	0	0	19	15	152	0	0	167	310	1246
18:00:00	103	15	0	0	118	25	9	0	2	34	9	152	0	0	161	313	1259
18:15:00	102	21	0	0	123	18	13	0	0	31	12	160	0	0	172	326	1271
18:30:00	92	31	0	0	123	15	7	0	0	22	12	133	0	0	145	290	1239
18:45:00	91	9	0	0	100	14	6	0	1	20	10	120	0	0	130	250	1179



Grand Total	3693	389	0	0	4082	553	203	0	3	756	224	4010	0	0	4234	9072	-
Approach%	90.5%	9.5%	0%		-	73.1%	26.9%	0%		-	5.3%	94.7%	0%		-	-	-
Totals %	40.7%	4.3%	0%		45%	6.1%	2.2%	0%		8.3%	2.5%	44.2%	0%		46.7%	-	-
Heavy	263	21	0		-	25	4	0		-	13	258	0		-	-	-
Heavy %	7.1%	5.4%	0%		-	4.5%	2%	0%		-	5.8%	6.4%	0%		-	-	-
Bicycles	-	-	-		-	-	-	-		-	-	-	-		-	-	-
Bicycle %	-	-	-		-	-	-	-		-	-	-	-		-	-	-

					Peak Hour: 08:	15 AM - 0	9:15 AM	Weath	er: Over	cast Clouds (7.73	°C)					
Start Time				oroach IELD RD			R	S App OBERT PA	roach RKINSON	DR				<b>proach</b> IELD 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	141	10	0	0	151	24	7	0	0	31	8	144	0	0	152	334
08:30:00	140	7	0	0	147	26	7	0	0	33	5	104	0	0	109	289
08:45:00	161	7	0	0	168	19	7	0	0	26	5	86	0	0	91	285
09:00:00	168	10	0	0	178	19	9	0	0	28	12	127	0	0	139	345
Grand Total	610	34	0	0	644	88	30	0	0	118	30	461	0	0	491	1253
Approach%	94.7%	5.3%	0%		-	74.6%	25.4%	0%		-	6.1%	93.9%	0%		-	-
Totals %	48.7%	2.7%	0%		51.4%	7%	2.4%	0%		9.4%	2.4%	36.8%	0%		39.2%	-
PHF	0.91	0.85	0		0.9	0.85	0.83	0		0.89	0.63	8.0	0		0.81	-
Heavy	73	2	0		75	3	1	0		4	5	47	0		52	
Heavy %	12%	5.9%	0%		11.6%	3.4%	3.3%	0%		3.4%	16.7%	10.2%	0%		10.6%	-
Lights	537	32	0		569	85	29	0		114	25	414	0		439	
Lights %	88%	94.1%	0%		88.4%	96.6%	96.7%	0%		96.6%	83.3%	89.8%	0%		89.4%	-
Single-Unit Trucks	26	0	0		26	0	0	0		0	0	16	0		16	-
Single-Unit Trucks %	4.3%	0%	0%		4%	0%	0%	0%		0%	0%	3.5%	0%		3.3%	-
Buses	34	2	0		36	3	1	0		4	5	29	0		34	-
Buses %	5.6%	5.9%	0%		5.6%	3.4%	3.3%	0%		3.4%	16.7%	6.3%	0%		6.9%	-
Articulated Trucks	13	0	0		13	0	0	0		0	0	2	0		2	-
Articulated Trucks %	2.1%	0%	0%		2%	0%	0%	0%		0%	0%	0.4%	0%		0.4%	-
Bicycles on Road	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%	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

					Peak Hour: 03:0	00 PM - 04	4:00 PM	Weathe	r: Overd	cast Clouds (14.32	2 °C)					
Start Time				roach ELD RD			R	<b>S App</b> OBERT PA	roach RKINSON	DR				oroach ELD 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	129	9	0	0	138	19	9	0	0	28	9	148	0	0	157	323
15:15:00	126	17	0	0	143	20	10	0	0	30	12	141	0	0	153	326
15:30:00	128	17	0	0	145	15	3	0	0	18	9	182	0	0	191	354
15:45:00	121	24	0	0	145	17	5	0	0	22	16	185	0	0	201	368
Grand Total	504	67	0	0	571	71	27	0	0	98	46	656	0	0	702	1371
Approach%	88.3%	11.7%	0%		-	72.4%	27.6%	0%		-	6.6%	93.4%	0%		-	-
Totals %	36.8%	4.9%	0%		41.6%	5.2%	2%	0%		7.1%	3.4%	47.8%	0%		51.2%	-
PHF	0.98	0.7	0		0.98	0.89	0.68	0		0.82	0.72	0.89	0		0.87	-
Heavy	46	3	0		49	5	3	0		8	1	78	0		79	
Heavy %	9.1%	4.5%	0%		8.6%	7%	11.1%	0%		8.2%	2.2%	11.9%	0%		11.3%	-
Lights	458	64	0		522	66	24	0		90	45	578	0		623	
Lights %	90.9%	95.5%	0%		91.4%	93%	88.9%	0%		91.8%	97.8%	88.1%	0%		88.7%	-
Single-Unit Trucks	15	0	0		15	1	0	0		1	0	26	0		26	-
Single-Unit Trucks %	3%	0%	0%		2.6%	1.4%	0%	0%		1%	0%	4%	0%		3.7%	-
Buses	27	3	0		30	4	3	0		7	1	36	0		37	-
Buses %	5.4%	4.5%	0%		5.3%	5.6%	11.1%	0%		7.1%	2.2%	5.5%	0%		5.3%	-
Articulated Trucks	4	0	0		4	0	0	0		0	0	16	0		16	-
Articulated Trucks %	0.8%	0%	0%		0.7%	0%	0%	0%		0%	0%	2.4%	0%		2.3%	-
Bicycles on Road	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%	-
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
Pedestrians%	-	-	-	0%		-	-	-	0%		-	-	-	0%		-

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(D) mapbox

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

Legend:
### (#.# %) TOTAL VEHICLES (HEAVY %)



Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C) Legend: ### (#.# %) TOTAL VEHICLES (HEAVY %) Pedestrians S 0 Е 0

(D) mapbox

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

#### Turning Movement Count (8 . MAYFIELD RD & THORNBUSH BLVD) CustID: 01420377 E Approach S Approach W Approach Int. Total Int. Total MAYFIELD RD THORNBUSH BLVD MAYFIELD RD (15 min) (1 hr) Start Time UTurn UTurn Right Thru UTurn Thru Left Peds Right Left Peds Peds Approach Total Approach Total Approach Total E:E E:W E:S E: S:E S:W S:S S: W:S W:E W:W W: 06:00:00 06:15:00 06:30:00 06:45:00 07:00:00 07:15:00 07:30:00 07:45:00 08:00:00 08:15:00 08:30:00 08:45:00 09:00:00 09:15:00 09:30:00 09:45:00 \*\*\*BREAK\*\*\* 15:00:00 15:15:00 15:30:00 15:45:00 16:00:00 16:15:00 16:30:00 16:45:00 17:00:00 17:15:00 17:30:00 17:45:00 18:00:00 18:15:00 18:30:00 18:45:00



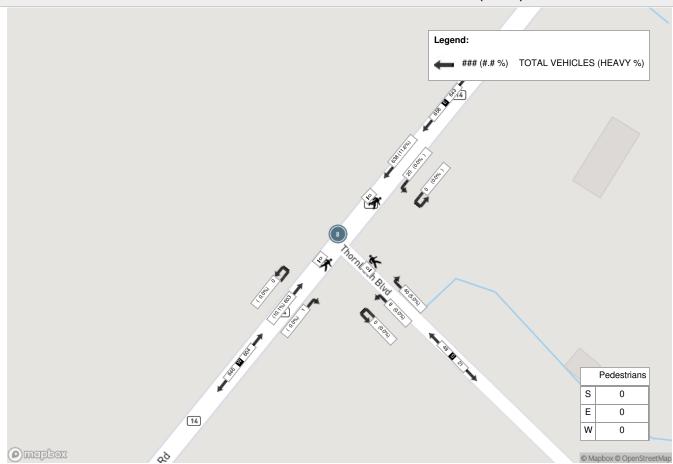
Grand Total	4228	213	0	0	4441	258	50	0	1	308	56	4757	1	0	4814	9563	-
Approach%	95.2%	4.8%	0%		-	83.8%	16.2%	0%		-	1.2%	98.8%	0%		-	-	-
Totals %	44.2%	2.2%	0%		46.4%	2.7%	0.5%	0%		3.2%	0.6%	49.7%	0%		50.3%	-	-
Heavy	290	8	0		-	9	0	0		-	4	296	0		-	-	-
Heavy %	6.9%	3.8%	0%		-	3.5%	0%	0%		-	7.1%	6.2%	0%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

					Peak Hour: 08:	:15 AM - 0	9:15 AM	Weath	er: Over	cast Clouds (7.73	°C)					
Start Time				proach IELD RD				S App	roach JSH BLVD					proach TELD RD		Int. Tota (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	<u>-</u>
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	<u>-</u>
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: 03:0	00 PM - 04	1:00 PM	Weathe	r: Overc	ast Clouds (14.32	°C)					
Start Time	E Approach MAYFIELD RD						S Approach THORNBUSH BLVD					<b>W Approach</b> 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)





## Peak Hour: 03:00 PM - 04:00 PM Weather: Overcast Clouds (14.32 °C) Legend: ### (#.# %) TOTAL VEHICLES (HEAVY %) Pedestrians S 0 Е 0 14 W

(D) mapbox

© Mapbox © OpenStreetMap

#### Jane Hu

From: Arash Olia <Arash.Olia@caledon.ca>
Sent: Monday, March 18, 2024 11:43 AM

To: Jane Hu

**Cc:** Seema Nagaraj

**Subject:** Re: Road Traffic Data Request (VCL: 1240062.000)

#### This Message Is From an Untrusted Sender

You have not previously corresponded with this sender.

Report Suspicious

Hi Jane,

Please arrange to collect the recent traffic data.

Thanks,

#### Arash Olia, Ph.D., P.Eng.

Manager, Transportation Engineering Engineering, Public Works & Transportation

Office: 905.584.2272 x.4073 Email: arash.olia@caledon.ca

Town of Caledon | www.caledon.ca | www.visitcaledon.ca | Follow us @TownofCaledon

From: Jane Hu <jhu@valcoustics.com>
Sent: Monday, March 18, 2024 7:07:26 PM
To: Arash Olia <Arash.Olia@caledon.ca>
Cc: Seema Nagaraj <seema@valcoustics.com>

Subject: Road Traffic Data Request (VCL: 1240062.000)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the contents to be safe.

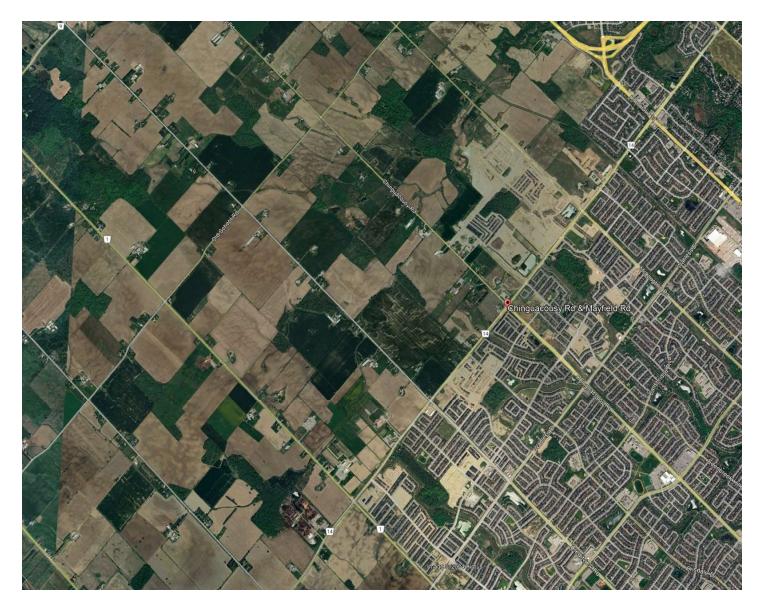
Hello,

We are currently preparing an environmental noise feasibility study for a proposed secondary plan in the vicinity of Chinguacousy Road and Mayfield Road (please see snippet below for exact location), in Caledon.

If available, could you please provide road traffic data for:

- · Chinguacousy Road, north of Mayfield Road
- Creditview Road, north of Mayfield Road
- Heritage Road, north of Mayfield Road

We are looking for any available data for current and ultimate AADT, number of lanes, posted speed limit, medium/heavy truck percentages, day/night split, and road gradient.



Thank you, Jane Hu



30 Wertheim Court, Unit 25 Richmond Hill, Ontario Canada L4B 1B9 Tel: 905-764-5223 ext. 233 Fax: 905-764-6813 solutions@valcoustics.com

"This message (and any associated files) is intended only for the use of the individual or entity to which it is addressed. The content of the message is the property of the Corporation of the Town of Caledon. The message may contain information that is privileged, confidential, subject to copyright and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, you are notified that any dissemination, distribution, copying, or modification of this message is strictly prohibited. If you have received this message in error, please notify the sender immediately, advising of the error and delete this message without making a copy. (Information related to this email is

third party in certain circumstances).	Thank you."	

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automatically monitored and recorded and the content may be required to be disclosed by the Town to a

## 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 Rail Aircraft	07:00 to 23:00 07:00 to 23:00 24-hour period	45 dBA 40 dBA NEF/NEP 5
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	Road Rail Aircraft	23:00 to 07:00 23:00 to 07:00 24-hour period	45 dBA 40 dBA NEF/NEP 5
Sleeping quarters	Road Rail Aircraft	07:00 to 23:00 07:00 to 23:00 24-hour period	45 dBA 40 dBA NEF/NEP 0
Sleeping quarters	Road Rail Aircraft	23:00 to 07:00 23:00 to 07:00 24-hour period	40 dBA 35 dBA 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 Class 2 Area Class 3 Area	07:00 to 19:00 <sup>(1)</sup> 19:00 to 23:00 <sup>(1)</sup> 07:00 to 19:00 <sup>(2)</sup> 19:00 to 23:00 <sup>(2)</sup> 07:00 to 19:00 <sup>(3)</sup>	50° dBA 50° dBA 50° dBA 45° dBA 45° dBA
	Class 4 Area	19:00 to 23:00 <sup>(3)</sup> 07:00 to 19:00 <sup>(4)</sup> 19:00 to 23:00 <sup>(4)</sup>	40* dBA 55* dBA 55* dBA

..../cont'd

SPACE	SOURCE	TIME PERIOD	CRITERION
Plane of a Window of	Stationary Source		
Noise Sensitive Spaces	Class 1 Area	07:00 to 19:00 <sup>(1)</sup>	50* dBA
·		19:00 to 23:00 <sup>(1)</sup>	50* dBA
		23:00 to 07:00 <sup>(1)</sup>	45* dBA
	Class 2 Area	07:00 to 19:00 <sup>(2)</sup>	50* dBA
		19:00 to 23:00 <sup>(2)</sup>	50* dBA
		23:00 to 07:00 <sup>(2)</sup>	$45^{*}$ dBA
	Class 3 Area	07:00 to 19:00 <sup>(3)</sup>	$45^{*}$ dBA
		19:00 to 23:00 <sup>(3)</sup>	$45^{*}$ dBA
		23:00 to 07:00 <sup>(3)</sup>	$40^{*}$ dBA
	Class 4 Area	07:00 to 19:00 <sup>(4)</sup>	$60^{*} dBA$
		19:00 to 23:00 <sup>(4)</sup>	$60^{\circ}$ dBA
		23:00 to 07:00 <sup>(4)</sup>	55* dBA

may not apply to in-fill or re-development.

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).

or the minimum hourly background sound exposure  $L_{\text{eq(1)}}$ , due to road traffic, if higher. Class 1 Area: Urban.

<sup>(2)</sup> (3) Class 2 Area: Urban during day; rural-like evening and night.

Class 3 Area: Rural.

Class 4 Area: Subject to land use planning authority's approval.

#### **APPENDIX C**

## SAMPLE SOUND LEVEL CALCULATIONS - TRANSPORTATION SOURCES

```
STAMSON 5.04
                     SUMMARY REPORT
                                             Date: 20-09-2024 14:03:19
MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS / NOISE ASSESSMENT
Filename: r1.te
                                  Time Period: Day/Night 16/8 hours
Description: R1 - Block 99 (W Facade)
Road data, segment # 1: Creditview (day/night)
_____
Car traffic volume : 8943/994 veh/TimePeriod *
Medium truck volume : 282/31 veh/TimePeriod * Heavy truck volume : 188/21 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): 10460
    Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
    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 : -5.00 deg 85.00 deg Wood depth : 0 (No woods.)

No of house rows : 0 / 0

Surface : 1 (Absorptive
                                             (Absorptive ground surface)
Receiver source distance : 300.00 / 300.00 m
Receiver height : 7.50 / 7.50 m
Topography
                            : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00
Road data, segment # 2: Black Horse (day/night)
_____
Car traffic volume : 2710/301 veh/TimePeriod *
Medium truck volume : 86/10 veh/TimePeriod * Heavy truck volume : 57/6 veh/TimePeriod *
Posted speed limit : 60 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): 3170
    Percentage of Annual Growth : 0.00
Number of Years of Growth : 0.00
    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 # 2: Black Horse (day/night)

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Angle1 Angle2 : -90.00 deg 80.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)

Receiver source distance : 17.00 / 17.00 m

Receiver height : 7.50 / 7.50 m

Topography : 1 (Flat/gentle slope; no barrier)

Reference angle : 0.00

Result summary (day)

	! ! !	height	!!!	Leq	! ! !	Total Leq (dBA)	
1.Creditview 2.Black Horse	+- ! !	1.19	•	43.88		43.88	
		Total				58.62	dВ

Result summary (night)

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	!	source	!	Road	!	Total
	!	height	!	Leq	!	Leq
	!	(m)	!	(dBA)	!	(dBA)
	+-		+	+		
1.Creditview	!	1.19	!	37.35	!	37.35
2.Black Horse	!	1.17	!	51.87	!	51.87
	+-		+	+		
		Total				52.02 dBA

TOTAL Leg FROM ALL SOURCES (DAY): 58.62

(NIGHT): 52.02