Guelph Innovation District (GID) Lands, Blocks 1 & 2

Environmental Noise Assessment

Project Location:
328 Victoria Road South and 588 Stone Road East,
Guelph, Ontario

Prepared for:
Fusion Homes
500 Hanlon Creek Boulevard
Guelph, Ontario, N1C 0A1

Prepared by:
MTE Consultants Inc.
520 Bingemans Centre Drive
Kitchener, ON N2B 3X9

December 12, 2025

MTE File No.: 46927-104

Engineers, Scientists, Surveyors.

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1.0 INTRODUCTION

MTE Consultants Inc. (MTE) has been retained by Fusion Homes (Fusion) to prepare an Environmental Noise Assessment in support of a Draft Plan of Subdivision application for the proposed Guelph Innovation District (GID) Lands, herein referred to as the 'subject lands'.

The subject lands consist of approximately 116.6ha of developable area located in the City of Guelph (City). The subject lands are currently agricultural/open space and part of the University of Guelph's Agroforestry Research facility. They are bounded by Stone Road East to the south, Victoria Road South to the west, and the Guelph Junction Railway and the Eramosa River to the north and east. Refer to **Figure 1.1** for a site location plan.

Development plans for the subject lands include the construction of street-oriented residential units, multiple residential and mixed-use blocks, a school site, employment blocks, park lands, stormwater management facilities, open space blocks, and the required roads and municipal services (storm, sanitary, and water). A Draft Plan of Subdivision (dated December 10, 2025) for the proposed development has been prepared by MHBC Planning and forms the basis for this study. Refer to **Appendix A** for more details.

The purpose of this study is to determine the noise impacts from the Guelph Junction Railway, Stone Road East, Victoria Road South, College Avenue East, and internal Streets A, B, and C on the subject property, and recommend noise control measures to meet the Ministry of the Environment, Conservation and Parks' (MECP) guidelines while satisfying the planning requirements of the City.

2.0 CRITERIA

The assessment has been completed following the *Guelph Noise Control Guidelines (*City, *2018)* and the *Publication NPC-300: Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning* (MECP, 2013).

2.1 Outdoor Noise Level Limits

The recommended outdoor daytime noise levels, taken from Table C-1 in the Publication NPC-300 are:

Usage	Between Hours	Noise Levels
Outdoor Amenity Area	07:00 to 23:00	55dBA L_{eq}

Table 2.1 summarizes the resulting design considerations required for road and rail traffic noise sources.

Table 2.1 – Required Design Considerations for Outdoor Living Areas

Daytime (07:00-23:00)	Exceeds Objective By	Design Consideration
≤ 55dBA	0dBA	No requirements or conditions
56-60dBA	1-5dBA	Noise Warning Clause
> 60dBA	> 5dBA	Alternative Land Use Alternative Draft Plan Designs Barriers

CAD: P:\P\46927\104\46927-104-F1.1 (LOCATION PLAN).DWG

Plot Date: December 11, 2025 - 7:50 AM

MTE
Engineers, Scientists, Surveyors

PROJECT
GUELPH INNOVATION DISTRICT LANDS

TITLE
LOCATION PLAN

Drawn: OXR	Scale: 1:10000	Figure: 1.1
Checked: CJC	Project No.: 46927-104	
Date: 2025-12-15	Rev No.: 0	

2.2 Indoor Noise Level Limits

Similar to outdoor noise levels limits, the recommended indoor noise levels are given in Table C-2 in the Publication NPC-300. Below is a summary of Table C-2, identifying the worst-case scenario for daytime and nighttime hours, respectively:

Usage	Between Hours	Noise Levels (L_{eq})	
		Road	Rail
Indoor Living Area	07:00 to 23:00	45dBA	40dBA
Indoor Living Area (Sleeping Quarters)	23:00 to 07:00	40dBA	35dBA

Some locations within the subdivision, especially along the eastern side, will have simultaneous effects from incoming road and rail noise. As such, the appropriate noise criteria will be applied when applicable. Refer to the NPC-300, or the excerpts in **Appendix B** for more details on how and when to apply the appropriate NPC-300 criteria.

For the purposes of this study, outdoor sound levels (calculated at the plane of window) are used to determine if acoustical mitigation measures are required. **Table 2.2** and **Table 2.3** summarize the resulting design considerations, for indoor living area sound levels, assuming a 10dBA reduction for a standard wall section is applied to the calculated outdoor sound levels to compare them directly with the NPC-300 limits.

Table 2.2 – Required Design Considerations for Indoor Living Areas (Road)

Daytime (07:00-23:00)	Nighttime (23:00-07:00)	Exceeds Objective By	Design Consideration
≤ 55dBA	≤ 50dBA	0dBA	No requirements or conditions
56-65dBA	51-60dBA	1-10dBA	Noise Warning Clause Provisions for central A/C
> 65dBA	> 60dBA	> 10dBA	Noise Warning Clause Central A/C installed prior to occupancy Building components designed to achieve indoor sound level criteria

Table 2.3 – Required Design Considerations for Indoor Living Areas (Rail)

Daytime (07:00-23:00)	Nighttime (23:00-07:00)	Exceeds Objective By	Design Consideration
≤ 55dBA	≤ 50dBA	≤ 5dBA	No requirements or conditions
56-65dBA	51-60dBA	5-15dBA	Noise Warning Clause Provisions for central A/C
> 60dBA*	> 55dBA*	> 10dBA*	Building components designed to achieve indoor sound level criteria*
> 65dBA	> 60dBA	> 15dBA	Noise Warning Clause Central A/C installed prior to occupancy Building components designed to achieve indoor sound level criteria

*Note: Includes road crossing whistle analysis

2.3 Calculation Parameters

As previously noted, the allowable outdoor noise level for outdoor living areas is 55dBA with up to 60dBA being allowed with a noise warning clause. The allowable indoor daytime (07:00 - 23:00) and nighttime (23:00 - 07:00) noise levels are 45dBA and 40dBA, respectively, using the road traffic criteria. Similarly, the allowable noise levels are 40dBA and 35dBA, respectively, using the rail traffic criteria. Indoor noise levels are assumed to be 10dBA less than outdoor noise levels, measured at the plane of window, for buildings with standard wall construction.

Daytime and nighttime noise calculations for indoor noise levels at locations which represent the worst-case impact have been included. The calculations include an assumption for fully reflective surfaces between the sources and receivers. Knowing this will not be the case for all, these calculations shall be optimized during final design for the subdivision and/or during the respective blocks' Site Plan Approval (SPA) stages. Noise levels have also been calculated for the outdoor living areas, at a height of 1.5m above ground level.

Road grades used for this assessment are based on the preliminary finished grades for the development. In the case of College Avenue East an approximate road grade has been determined based on the available existing condition information. As some of the roads being assessed can be segmented between major intersections, the worst-case results were applied along the full length of road as a conservative approach. As such, Victoria Road South utilizes a segment with a 1.0% grade which corresponds to the grade of the road segment in the worst-case scenario. Stone Road East utilizes a segment with a 2.5% grade which corresponds to the grade of the road segment in the worst-case scenario. College Avenue utilizes a segment with a 3.5% grade. Street A utilizes a segment with a 3.7% grade which corresponds to the grade of the road segment in the worst-case scenario. Lastly, Streets B and C utilize 3.8% and 3.2% grades respectively. These gradients were used as road parameters in the Stamson modelling software.

3.0 ANALYSIS PROCEDURES

3.1 Road Traffic Data

The road traffic noise sources considered for this analysis include:

- Victoria Road South – between York Road and Stone Road East;
- Stone Road East – between Victoria Road South and Watson Parkway;
- College Avenue East – west of Victoria Street South;
- Street A – between Victoria Road South and Stone Road East;
- Street B – between Victoria Road South and Street A; and,
- Street C – between Victoria Road South and Street A.

Forecasted road traffic volumes for years 2036, 2041, and 2046 were provided by GHD in the December 12, 2025 *Traffic Impact Study*. This information included the AM and PM peak volume movements at all significant intersections. Traffic volumes along Victoria Road South, Stone Road East, and Street A can be segmented further during future development stages. For the purposes of this analysis, the worst-case 2046 full buildout segments represent the worst-case horizon year. As such, the Average Annual Daily Traffic (AADT) volumes (vpd - vehicles per day) were estimated by multiplying the peak traffic counts from the worst-case scenario by 10.

GHD also provided road traffic movement data on January 10, 2023. This information included a breakdown of medium and heavy truck counts and was used in conjunction with the information above. Furthermore, a 90/10 day/night split was assumed.

The segment summaries are presented in **Table 3.1**. The forecasted road traffic volume breakdowns are summarized in **Table 3.2** to **Table 3.7**. See **Appendix C** for traffic data.

Table 3.1 – Ultimate Traffic Volume Segments

	Victoria Road South	Stone Road East	College Avenue East	Street A	Street B	Street C
Segment 1	41,320vpd	**16,180vpd**	**13,670vpd**	2,840vp	**3,970vpd**	**5,790vpd**
Segment 2	**37,240vpd**	11,860vpd	-	1,930vpd	-	-
Segment 3	32,600vpd	-	-	2,300vpd	-	-
Segment 4	30,110vpd	-	-	**2,960vpd**	-	-
Medium Trucks	3.9%	8.0%	6.4%	1.0%	1.0%	1.0%
Heavy Trucks	1.5%	2.4%	0.6%	0.0%	0.0%	0.0%
Posted Speed	70km/h	60km/h	60km/h	50km/h	50km/h	50km/h
Road Grade	1.0%	2.5%	3.5%	3.7%	3.8%	3.2%

*Note: Due to changing speeds and road grades along some of these streets, bolded values represent the worst-case governing segment along with its associated modelling parameters.

3.2 Rail Traffic Data

The rail traffic noise source considered for this analysis included:

- Guelph Junction Railway, GJR Mileage 28.73, Goderich Subdivision.

Existing conditions railway traffic information was supplied by GJR on January 18, 2023. For the purposes of this study, the rail traffic was also forecasted to the 2046 buildout horizon year, using a 2.5% growth rate per year. The projected rail traffic volume breakdowns are summarized below.

- 6 freight trains per 24 hours (2023) – 11 freight trains per 24 hours (2046);
- 2 locomotives per train (maximum) and 35 cars per train (maximum); and
- Speed limit – 40km/h (maximum permissible)

3.3 Traffic Calculation Methods

Resulting road and rail noise levels were calculated using the Stamson v5.03 computer program approved by the MECP. Daytime and nighttime noise levels were calculated based on a 24-hour volume breakdown. The daytime volume (over 16 hours) is obtained by multiplying the AADT by the fraction of daily traffic expected during the daytime period (i.e. 90%). The nighttime volumes are obtained in a similar manner, except using 10% for expected nighttime traffic (over 8 hours). Since rail traffic information was provided for a 24-hour window, it was conservatively applied during the day for outdoor calculations and during the night for indoor calculations. Noise calculations results are attached in **Appendix D**.

Table 3.2 – Ultimate Road Traffic Volumes for Victoria Road South

Victoria Road South (Segment 2)	Projected Ultimate AADT – 37,240vpd Speed Limit = 70km/h		
	Cars	Medium Trucks (3.9%)	Heavy Trucks (1.5%)
Daytime Volume (16hr)	31,706	1,307	503
Nighttime Volume (8hr)	3,523	145	56

Table 3.3 – Ultimate Road Traffic Volumes for Stone Road East

Stone Road East (Segment 1)	Projected Ultimate AADT – 16,180vpd Speed Limit = 60km/h		
	Cars	Medium Trucks (8.0%)	Heavy Trucks (2.4%)
Daytime Volume (16hr)	13,048	1,165	349
Nighttime Volume (8hr)	1,450	129	39

Table 3.4 – Ultimate Road Traffic Volumes for College Avenue East

College Avenue East (Segment 1)	Projected Ultimate AADT – 13,670vpd Speed Limit = 60km/h		
	Cars	Medium Trucks (6.4%)	Heavy Trucks (0.6%)
Daytime Volume (16hr)	11,442	787	74
Nighttime Volume (8hr)	1,271	87	8

Table 3.5 – Ultimate Road Traffic Volumes for Street A

Street A (Segment 4)	Projected Ultimate AADT – 2,960vpd Speed Limit = 50km/h		
	Cars	Medium Trucks (1.0%)	Heavy Trucks (0.0%)
Daytime Volume (16hr)	2,637	27	0
Nighttime Volume (8hr)	293	3	0

**Insufficient nighttime traffic volumes to run Stamson – min. 40vph required.*

Table 3.6 – Ultimate Road Traffic Volumes for Street B

Street B	Projected Ultimate AADT – 3,970vpd Speed Limit = 50km/h		
	Cars	Medium Trucks (1.0%)	Heavy Trucks (0.0%)
Daytime Volume (16hr)	3,537	36	0
Nighttime Volume (8hr)	393	4	0

Table 3.7 – Ultimate Road Traffic Volumes for Street C

Street C	Projected Ultimate AADT – 5,790vpd Speed Limit = 50km/h		
	Cars	Medium Trucks (1.0%)	Heavy Trucks (0.0%)
Daytime Volume (16hr)	5,159	52	0
Nighttime Volume (8hr)	573	6	0

4.0 RESULTS AND ANALYSIS

4.1 Noise Level Calculations

This noise report has been completed to assess the traffic noise impacts of the Guelph Junction Railway, Stone Road East, Victoria Road South, College Avenue East, and internal Streets A, B, and C on the subject lands and to recommended noise mitigation measures, if required. As previously stated, a reflective intermediate surface was assumed to represent the worst-case analysis at daytime and nighttime living areas (bedroom or living/dining room), regardless of elevation. Noise levels have also been calculated for outdoor living areas, at a height of 1.5m above finished grade. Resulting Stamson calculations are provided in **Appendix D**.

It should be noted that Site Plans are not yet finalized for the multi-residential and mixed-use blocks proposed within the subject lands. Environmental Noise Assessments will be required for these blocks under their respective SPA processes.

4.1.1 Setback Lines

Noise calculations were completed to determine the minimum source-receiver distance to establish the following design considerations and requirements.

- Central A/C, special building components, and a noise warning clause;
- Provisions for central A/C and a noise warning clause;
- Control measures for outdoor living areas and a noise warning clause; and,
- A noise warning clause.

The following **Table 4.1** indicates the resulting unattenuated (free-field) noise levels at specific receiver locations within the development. As shown in **Table 4.1**, unattenuated acoustical impacts are such that MECP noise level limits are exceeded within the development. Mitigation measures or design considerations in the form of building components, noise attenuating barriers, and/or noise warning clauses will be required where resulting the noise exceeds acceptable levels. The resulting setback lines are identified in **MTE Drawing 46927-104-NA1.1**.

Table 4.1 – Unattenuated Noise Levels (Setback Lines)

Receiver Location	Distance (m) Daytime / Nighttime*	Daytime Level (dBA)	Nighttime Level (dBA)
Setback Line 1 (GJR)	**100.0**	Brick Veneer Requirements	
Setback Line 2 (GJR)	**296.3**	-	50
Setback Line 3 (GJR)	**300.0**	Rail Noise Warning Clause	
Setback Line 4 (GJR)	**397.2**	-	55
Setback Line 5 (Victoria)	**84.6** / 59.5	65	60
Setback Line 5 (Stone)	**40.3** / 28.4	65	60
Setback Line 6 (Victoria)	**267.5**	60	-
Setback Line 6 (Stone)	**127.5**	60	-
Setback Line 7 (Victoria)	***845.2*** / *594.2*	55	50
Setback Line 7 (Stone)	**403.4** / 284.0	55	50

*Note: Bolded distances, where both daytime and nighttime measurements are relevant, indicate the governing distance and time of day for that particular setback line/attenuation measure.

The setback distances in italics for Setback Line 7 are greater than 500.0m from the respective road centrelines, which is the maximum distance that Stamson can adequately model the resulting noise level. As such, the distance to these setbacks was calculated using the equation found in the calculations in **Appendix E**, which use an MECP approved logarithmic scale equation to determine how the decibel level decreases as the distance from the noise source is increased.

Furthermore it should be noted that the resulting setback distances from the internal Streets A, B, and C are not published in Table 4.1 or the appendVICed **MTE Drawing 46927-104-NA1.1.** This is due to the fact that the overlapping results from Stone Road East and Victoria Road South govern the requirements. Refer to the Street A, B, and C Stamson output files provided in **Appendix D** for more details.

4.1.2 College Avenue East

As College Avenue East is situated at a perpendicular intersection to the subject lands, the effects of traffic noise levels were analyzed using points of assessment (POAs). As shown in the resulting Stamson calculations provided in **Appendix D** two different scenarios were analyzed at multiple POAs, both including and excluding the traffic noise from College Avenue East. Due to the significant traffic volumes on Victoria Road South the impact of the College Avenue East traffic noise is minimal, increasing noise levels at the POAs by less than 1%. As such College Avenue East noise levels have not been considered in the determination of the setback lines presented above. College Avenue East traffic noise will however continue to be included in future assessments for the multi-residential blocks, mixed-use blocks, and employment blocks during their respective SPA processes.

4.1.3 Points of Assessment (POAs)

Points of assessment are typically placed in critical locations where the resulting noise levels are expected to be high due to the close proximity to the noise source, or where the thresholds outlined in **Table 2.2** and **Table 2.3** are achieved. They are typically used to assess building component requirements based on elevated noise levels. Due to the resulting setback lines discussed above, it is anticipated that dwellings located between the GJR line and Setback Line 4 and between the respective Victoria/Stone right-of-ways and Setback Line 5 may require an analysis to determine any building component requirements. However, since building plans are not yet available, POAs were not modelled at this time.

4.1.4 Outdoor Living Areas (OLAs)

Similarly, outdoor living area points of assessment are also placed in critical locations where the resulting noise levels are expected to be high due to the close proximity of the noise source, or where the thresholds outlined in **Table 2.1** are achieved. They are typically used to assess noise barrier requirements based on elevated noise levels. Due to the resulting setback lines discussed above, it is anticipated that dwellings with OLAs located between Setback Line 6 and the respective Victoria/Stone right-of-ways may require an analysis to determine any noise attenuating barrier requirements. However, since building and block plans are not yet available, OLAs were not modelled at this time.

Refer to **MTE Drawing 46927-104-NA1.1** for the resulting setback line locations.

4.2 Resulting Design Considerations

4.2.1 Setback Lines

As previously mentioned, noise calculations were completed to determine the minimum source-receiver distances to establish appropriate design considerations and requirements. **Table 4.1** above presents a summary of Stamson modelling results for determining minimum setback lines.

The following setback lines describe the required design considerations at specific distances from the road centrelines. It should be noted that the descriptions outlined below are specific to that setback line and do not account for multiple design requirements caused by overlapping setback lines. Refer to the requirements outlined in **MTE Drawing 46927-104-NA1.1** for exact lot/block level design considerations.

Outdoor Living Areas

Setback Line 6 (60dBA)

- Noise attenuation barrier and a Type B Noise Warning Clause.

Setback Line 7 (55dBA)

- A Type A Noise Warning Clause.

Plane of Window (POW)

Setback Line 5 (65dBA) (Daytime Governs)

- Special building components, central air conditioning installed prior to building occupancy, and a Type D Noise Warning Clause.

Setback Line 7 (55dBA) (Daytime Governs)

- Forced air heating with provisions for the installation of central air conditioning and a Type C Noise Warning Clause.

Analysis of the GJR railway results in the following setback lines, which indicate noise control measures required at specific distances from the rail centreline.

General

Setback Line 1 (100.0m MECP Setback)

- Special exterior wall building materials (brick veneer or masonry equivalent).

Setback Line 3 (300.0m Rail Setback)

- Special railway Noise Warning Clause.

Plane of Window (POW)

Setback Line 2 (50dBA) (Nighttime Governs)

- Forced air heating with provisions for the installation of central air conditioning and a Type C Noise Warning Clause.

Setback Line 4 (55dBA) (Nighttime Governs)

- Special building components.

4.2.2 Building Components

Dwellings proposed between the GJR line and Setback Line 4 may require an assessment for building components designed to achieve indoor sounds level criteria for rail noise (40dBA in

daytime living spaces, 35dBA in nighttime living spaces). Similarly, dwellings proposed between Victoria/Stone and Setback Line 5 may require an additional assessment for building components designed to achieve indoor sounds level criteria for road noise (45dBA in daytime living spaces, 40dBA in nighttime living spaces). The parameters and components required to meet these indoor criteria are the type, thickness, and total surface area of windows, doors, and wall sections. Furthermore, a Type D Noise Warning Clause shall be registered on title for the respective units.

Architectural plans are not yet available for the development, as such, Sound Transmission Class calculations have not been completed. These calculations will be completed and verified by a qualified Acoustical Professional prior to the issuance of building permits.

Additionally, based on the MECP's Publication NPC-300, EW5 (brick veneer) or a masonry equivalent wall section is required for the exterior walls, from the foundation to the rafters, of the first row of houses located within 100.0m of a railway, when the outdoor rail traffic 24-hour equivalent sound level (L_{eq} 24) estimated at a location of a nighttime receptor is greater than 60dBA. As indicated in **MTE Drawing 46927-104-NA1.1**, portions of some proposed blocks are located within this 100.0m setback (SBL 1), which require an EW5 or masonry equivalent exterior finish.

It should be noted that the multi-residential blocks, mixed-use blocks, and employment blocks requiring an analysis for special building components will undergo an Environmental Noise Assessment during their respective SPA processes.

4.2.3 Noise Attenuation Barrier

Blocks with outdoor amenity spaces located between Victoria/Stone and Setback Line 6 may require an assessment to determine if noise attenuating barriers are required. During the Site Plan development of these blocks, the orientation of OLAs and buildings can be strategically selected to ensure additional shielding is provided and attenuating measures (barriers) are not required. Similarly to above, these blocks will undergo additional assessments as part of their SPA processes to determine to final requirements. A Type B Noise Warning Clause shall be registered on title for all affected blocks.

4.2.4 Noise Warning Clauses and Ventilation Requirements

Dwellings located within the following setback lines shall be constructed with a forced air heating system to allow for the future installation of central air conditioning and a Type C Noise Warning Clause shall be registered on title:

- Between the GJR line and Setback Line 2; and,
- Between Victoria/Stone and Setback Line 7 (i.e the entirety of the subject lands).

Blocks with outdoor living areas proposed between Setback Lines 6 and 7 will have unattenuated outdoor daytime noise levels greater than 55dBA, which will require a Type A Noise Warning Clause to be registered on title.

Finally, dwellings located within 300.0m of the railway (SBL 3) require a specific railway Noise Warning Clause to be registered on title.

Note that requirements were determined for Streets A, B, and C. However, the resulting setbacks from Victoria/Stone govern the same blocks affected by Streets A, B, and C.

5.0 CONCLUSIONS

Based on the foregoing analysis, the following conclusions can be made:

1. Dwellings proposed between the GJR line and Setback Line 4 or between Victoria/Stone and Setback Line 5 may require an additional assessment for building components designed to achieve indoor sounds level criteria for rail and road noise, respectively. Furthermore, a Type D Noise Warning Clause shall be registered on title.
2. Blocks with outdoor amenity spaces located between Victoria/Stone and Setback Line 6 may require an assessment to determine if noise attenuating barriers are required. Furthermore, a Type B Noise Warning Clause shall be registered on title.
3. Forced air heating, as well as provisions for future installation of central air conditioning by the owner are required for lots between the GJR line and Setback Line 2 and between Victoria/Stone and Setback Line 7. Furthermore, a Type C Noise Warning Clause shall be registered on title.
4. A Type A Noise Warning Clause shall be registered on title for blocks with outdoor living areas proposed between Setback Lines 6 and 7, which have outdoor living areas with unattenuated daytime noise levels exceeding 55dBA.

Noise Warning Clauses

5. The following noise warning clauses shall be registered on title for the units where the resulting noise level exceeds the recommended criteria. These clauses shall be worded as follows:

   Purple and Blue Lots on Drawing NA1.1
   NWC TYPE A&C: Purchasers/tenants are advised that the sound levels due to increasing road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of Environment, Conservation and Parks. 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 Environment, Conservation and Parks

   Orange and Yellow Lots on Drawing NA1.1
   NWC TYPE A&C + Rail NWC: Purchasers/tenants are advised that the sound levels due to increasing road traffic may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of Environment, Conservation and Parks. 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 Environment, Conservation and Parks.

   "WARNING: Guelph Junction Railway or its assigns or successors in interest, has or have a railway right-of-way located within 300 meters from the land subject hereof. There may be alterations to or expansions of the railway facilities and/or operations in the future, which alterations or expansions may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration

attenuating measures in the design of the development and individual dwellings. CPR will not be responsible for complaints or claims arising from the use of its facilities and/or its operations on, over or under the aforesaid right-of-way."

Red Lots on Drawing NA1.1
NWC TYPE B&C: Purchasers/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 (rail traffic) (air 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. 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 Environment, Conservation and Parks.

It is recommended that:

- A Final Environmental Noise Assessment be completed for the subdivision during the Final Design Stage and for the proposed multi-residential and mixed-use blocks during their respective Site Plan Approval processes.

All of which is respectfully submitted;

MTE Consultants Inc.

Charles Carré, P.Eng.
Design Engineer
519-743-6500
ccarre@mte85.com

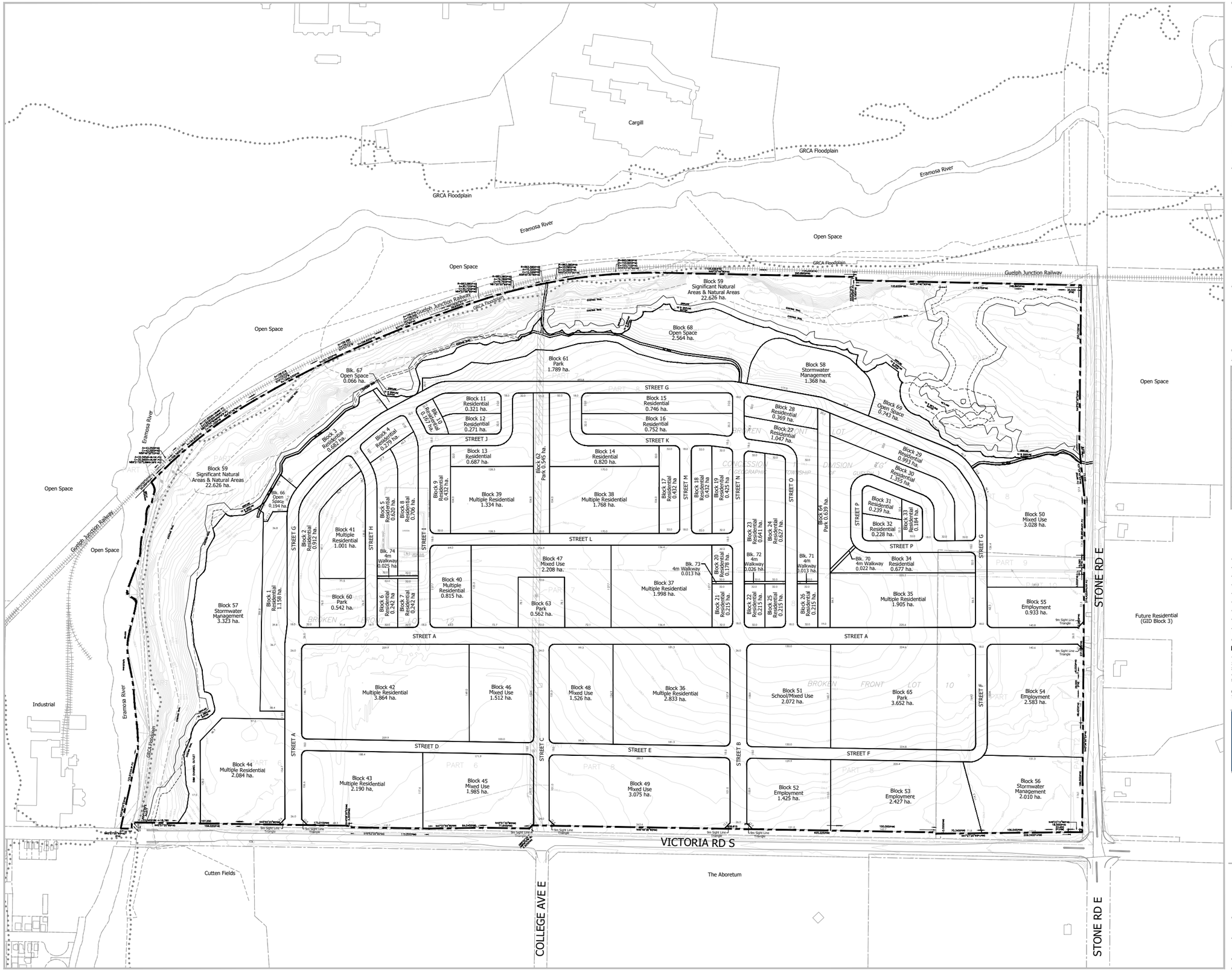
Matthew Willcox, P. Eng
Design Engineer
519-743-6500
mwillcox@mte85.com

CJC:jng

https://mte85.sharepoint.com/sites/46927-104/Shared Documents/02 - Reports/MTE Reports/Environmental Noise Assessment/2025-12-15 - 1st DP Submission/46927-104_rpt_2025-12-12_Environmental Noise Assessment.docx

Appendix A

Draft Plan of Subdivision (11x17 Reduced)



DRAFT PLAN OF SUBDIVISION

Legal Description

PART OF BROKEN FRONT LOTS 10, 11 & 12
CONCESSION 1, DIVISION 'G'
GEOGRAPHIC TOWNSHIP OF GUELPH
IN THE CITY OF GUELPH
COUNTY OF WELLINGTON

Owner's Certificate

I HEREBY AUTHORIZE MACNAUGHTON HERMSEN BRITTON CLARKSON PLANNING LIMITED TO SUBMIT THIS PLAN FOR APPROVAL.

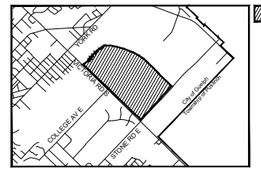
DATE: _____ _____
OWNER

Surveyor's Certificate

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

DATE: _____ _____
J. ANDREW SMITH
ONTARIO LAND SURVEYOR

Key Plan



Additional Information Required Under Section 51(17) of the Planning Act R.S.O. 1990, c.P.13 as Amended

A. AS SHOWN	B. AS SHOWN	C. AS SHOWN
D. AS SHOWN	E. AS SHOWN	F. AS SHOWN
G. AS SHOWN	H. MUNICIPAL WATER SUPPLY	I. TBD
J. AS SHOWN	K. ALL SERVICES AS REQUIRED	L. AS SHOWN

Area Schedule

Description	Block	Area (ha)	Units
Low Density Residential	1-34	17.724	457
Multiple Residential	35-44	19.792	1,003
Mixed Use	45-50	13.334	3,084
School/Mixed Use	51	2.072	
Employment	52-55	7.367	
Stormwater Management	56-58	6.701	
Significant Natural Area & Natural Areas	59	22.626	
Park	60-65	7.729	
Open Space	66-69	3.567	
Walkway	70-74	0.099	
Roads		15.585	
TOTAL	74	116.596	4,544

No.	Date	Issued / Revision	By
1.	Nov. 11 , 2025	Preliminary Draft Plan	SP

Notes

1. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE SHOWN.
2. SURVEY INFORMATION PROVIDED BY CALLON DIETZ LAND SURVEYING ONTARIO, NOV. 2016.
3. TOPOGRAPHIC INFORMATION PROVIDED BY MTE.
4. WETLAND, DRIPLINE, AND BUFFERS PROVIDED BY NRSI INC, OCT. 2022.
5. CONTAINS INFORMATION MADE AVAILABLE UNDER GRAND RIVER CONSERVATION AUTHORITY'S OPEN DATA LICENCE V1.0.
6. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE – CITY OF GUELPH.
7. COLLECTOR SIGHT LINE TRIANGLE 9m. LOCAL STREET CORNER RADIUS 8m.

MHBC PLANNING URBAN DESIGN & LANDSCAPE ARCHITECTURE
200-540 BINGEMANS CENTRE DR. KITCHENER, ON. N2B 3X9 | P: 519.576.3650 F: 519.576.0121 | WWW.MHBCPLAN.COM

Approval Stamp

Date	December 10, 2025
File No.	1405G
Plan Scale	1:2,500 (Arch D)
Drawn By	SP/JB
Checked By	DA

Project
Guelph Innovation District
Block 1 & 2
Fusion Homes
Guelph, Ontario

North

File Name Draft Plan of Subdivision

Dwg No. 1 of 1

Scale Bar 0 25 50 100 150 200m

K:\1405G - GID Block 1 and 2\DP\DP_10Dec2025.dwg

Appendix B

NPC-300 Guidelines

Environmental Noise Guideline

Stationary and Transportation Sources – Approval and Planning

Publication NPC-300

Ontario

Prepared by:

Ontario Ministry of the Environment
Environmental Approvals Access and Service Integration Branch and
Environmental Approvals Branch

August 2013 (updated final version #22)

This guideline is not, and should not be construed as legal advice. A lawyer should be consulted on questions about the application or interpretation of the laws of Ontario as they relate to the matters covered by this guideline.

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Telephone: 416-325-4000
Toll free: 1-800-565-4923
Email: **picemail.moe@ontario.ca**
www.ontario.ca/environment

PIBS 9588e

C3 Noise Impact Assessment – Transportation Sources

This Section deals with noise impact from transportation sources; road, rail and air traffic sources.

C3.1 Introduction

In the case of multiple transportation noise sources:

(1) the outdoor noise impact due to aircraft should be established separately from the impact due to road and/or rail traffic;

(2) the outdoor noise impact due to road and rail traffic should be combined; and

(3) the indoor noise impact should be assessed separately for road, rail and aircraft noise. The indoor noise control measures that are suitable for the multiple source impact should then be defined by a combined acoustical insulation parameter that is evaluated by combining the acoustical insulation parameters determined for each of the sources, on a logarithmic (energy) basis.

In all cases, consideration should be given to future sound levels. For road and rail noise, a minimum 10-year prediction is generally considered appropriate. Specific guidance on the requirements for predicting future sound levels for road and rail should be sought from the land use planning authority. For aircraft noise, the current NEF/NEP contours should be applied unless the airport authority has prepared NEF/NEP contours for a future date, in which case the future predicted contours should be used.

When a type of indoor space is not specifically identified in the sound level limit tables, the sound level limits for an analogous space should be applied.

Noise warning clauses may be used to warn of excesses above the sound level limits. Additional guidance on the use of noise warning clauses is provided in Section C7.1.1, Section C7.1.2.1, Section C7.1.2.2, Section C7.3 and Section C7.4.

C3.2 Road Traffic Noise

C3.2.1 Method

The assessment of road traffic noise impact, if required by the land use planning authority, is evaluated by prediction using statistically averaged road traffic information, based on the higher of the AADT (Annual Average Daily Traffic) or SADT (Summer Average Daily Traffic). The commonly used prediction method for road traffic noise, as recommended by MOE, is a method entitled ORNAMENT, Ontario Road Noise Analysis Method for Environment and Transportation, published in 1989 by MOE, as amended from time to time, Reference [24]. The descriptors are the 16-hour daytime and the 8-hour nighttime equivalent sound levels, L_{eq} (16) and

L_{eq} (8). For complete description on assessing road traffic impacts, refer to ORNAMENT. Other traffic noise prediction models have been and are being developed by various authorities and may be adopted from time to time for use in Ontario by the MOE.

In order to be consistent with MOE guidelines, the sound level should be assessed in an OLA, such as a rear yard or a patio, and in indoor living areas, such as bedrooms and living rooms. Where the noise impact exceeds the applicable sound level limits, mitigation measures such as site planning, architectural design, noise barriers, building envelope elements (windows, exterior walls, doors) with upgraded sound isolation performance and/or central air conditioning may be required. Noise control measures are not required if the sound level estimated in the OLA is 55 dBA or less during the daytime and 50 dBA or less in the plane of bedroom windows during either daytime or nighttime.

C3.2.2 Daytime Outdoor Sound Level Limit

Table C-1 gives the equivalent sound level (L_{eq}) limit for designated OLAs. The limit applies to the entire daytime period from 07:00 to 23:00.

Table C-1
Sound Level Limit for Outdoor Living Areas
Road and Rail

Time Period	L_{eq} (16) (dBA)
16-hour, 07:00 – 23:00	55

C3.2.3 Indoor Sound Level Limits

Table C-2 gives the equivalent sound level (L_{eq}) limits and the applicable time periods for the indicated types of indoor spaces. The specified indoor sound level limits are maxima and apply to the indicated indoor spaces with windows and doors closed.

Table C-2
Indoor Sound Level Limits
Road and Rail

Type of Space	Time Period	L_{eq} (dBA)	
		Road	Rail
Living/dining, den areas of residences, hospitals, nursing homes, schools, daycare centres, etc.	07:00 – 23:00	45	40
Living/dining, den areas of residences, hospitals, nursing homes, etc. (except schools or daycare centres)	23:00 – 07:00	45	40
Sleeping quarters	07:00 – 23:00	45	40
	23:00 – 07:00	40	35

C3.3 Rail Traffic Noise

C3.3.1 Method

The assessment of rail traffic noise impact should be conducted using a prediction method entitled STEAM, Sound from Trains Environmental Analysis Method, published in 1990 by MOE, Reference [34]. The descriptors used in the assessment are the 16-hour daytime and the 8-hour nighttime equivalent sound levels, L_{eq} (16) and L_{eq} (8). Other traffic noise prediction models have been and are being developed by various authorities and may be adopted from time to time for use in Ontario by the MOE.

The impact of railway traffic noise and the requirement for noise control measures should be assessed similarly to road traffic noise. The sound level should be assessed in an OLA, such as a rear yard or a patio, and in indoor living areas, such as bedrooms and living rooms, and compared with MOE guidelines. Noise control measures are not required if the sound level estimated in the OLA is 55 dBA or less during the daytime and 50 dBA or less in the plane of bedroom windows during daytime or nighttime.

C3.3.2 Daytime Outdoor Sound Level Limit

The outdoor noise impact should be assessed in the OLA during daytime hours, 07:00 to 23:00, considering a combination of only two sources of rail traffic noise, namely the locomotive and the wheel-rail interaction. Whistle noise is not included in the outdoor noise impact assessment. Table C-1 gives the equivalent sound level (L_{eq}) limit for OLAs.

C3.3.3 Indoor Sound Level Limits

The indoor assessment should consider the combination of all three railway noise sources, i.e., locomotive, wheel-rail and whistle. Table C-2 gives the equivalent sound level (L_{eq}) limits for the indicated types of indoor space. The specified indoor sound level limits are maxima and apply to the indicated indoor spaces with windows and doors closed.

A major characteristic of railway noise is its high pass-by sound level for short periods and a major low frequency component produced by the operation of the diesel locomotive. This special character of the sound should be taken into account, particularly when assessing the indoor sound levels. Consequently, in order to account for the special character of railway sound, the indoor sound level limits for rail noise, Table C-2, are 5 dBA lower than the indoor sound level limits for road traffic noise. This difference results in a requirement for acoustically superior architectural components such as windows and walls, for railway noise.

Table C-10
Supplementary Indoor Aircraft Noise Limits
(Applicable over 24-hour period)

Type of Space	Indoor NEF/NEP*
General offices, reception areas, retail stores, etc.	15
Individual or semi-private offices, conference rooms, etc.	10
Living/dining areas of residences, sleeping quarters of hotels/motels, theatres, libraries, schools, daycare centres, places of worship, etc.	5
Sleeping quarters of residences, hospitals, nursing/retirement homes, etc.	0

* The indoor NEF/NEP values listed in Table C-10 are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements.

C7 Noise Control Measures

The following sections provide MOE guidance for appropriate noise control measures. These sections constitute requirements that are applied to MOE approvals for stationary sources. This information is also provided as guidance which land use planning authorities may consider adopting.

The definition in Part A describes the various types and application of noise control measures. All the noise control measures described in the definition are appropriate to address the impact of noise of transportation sources (road, rail and aircraft) on planned sensitive land uses. Only some of the noise control measures described in the definition are appropriate to address the noise impact of stationary sources on planned sensitive land uses.

C7.1 Road Noise Control Measures

C7.1.1 Outdoor Living Areas

If the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 55 dBA and less than or equal to 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA. If measures are not provided, prospective purchasers or tenants should be informed of potential noise problems by a warning clause Type A.

If the 16-Hour Equivalent Sound Level, L_{eq} (16) in the OLA is greater than 60 dBA, noise control measures should be implemented to reduce the level to 55 dBA. Only in cases where the required noise control measures are not feasible for technical, economic or administrative reasons would an excess above the limit (55 dBA) be acceptable with a warning clause Type B. In the above situations, any excess above the limit will not be acceptable if it exceeds 5 dBA.

C7.1.2 Plane of a Window – Ventilation Requirements

C7.1.2.1 Daytime Period, 07:00 – 23:00 Hours

Noise control measures may not be required if the L_{eq} (16) daytime sound level in the plane of a bedroom or living/dining room window is less than or equal to 55 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 55 dBA and less than or equal to 65 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the daytime sound level in the plane of a bedroom or living/dining room window is greater than 65 dBA, installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.2.2 Nighttime Period, 23:00 – 07:00 Hours

Noise control measures may not be required if the L_{eq} (8) nighttime sound level in the plane of a bedroom or living/dining room window is less than or equal to 50 dBA. If the sound level in the plane of a bedroom or living/dining room window is greater than 50 dBA and less than or equal to 60 dBA, the dwelling should be designed with a provision for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.

If the nighttime sound level in the plane of a bedroom or living/dining room window is greater than 60 dBA, installation of central air conditioning should be implemented, with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The location and installation of the outdoor air conditioning device should comply with sound level limits of Publication NPC-216, Reference [32], and guidelines contained in Environmental Noise Guidelines for Installation of Residential Air Conditioning Devices, Reference [6], or should comply with other criteria specified by the municipality.

C7.1.3 Indoor Living Areas – Building Components

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 60 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 65 dBA, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the

sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) should be specified.

C7.2 Rail Noise Control Measures

C7.2.1 Outdoor Living Areas

Whistle noise is not included in the determination of the outdoor daytime sound level due to railway trains. All the provisions of Section C7.1.1 apply also to noise control requirements for rail noise.

C7.2.2 Plane of a Window – Ventilation Requirements

Whistle noise is not included in the determination of the sound level in the plane of a window. All the provisions of Section C7.1.2 apply also to noise control requirements for rail noise.

C7.2.3 Indoor Living Areas – Building Components

The sound level, L_{eq}, during the daytime (16-hour) and nighttime (8-hour) periods is determined using the prediction method STEAM, Reference [34], immediately outside the dwelling envelope. Whistle noise is included in the determination of the sound level.

If the nighttime sound level outside the bedroom or living/dining room windows exceeds 55 dBA or the daytime sound level outside the bedroom or living/dining area windows exceeds 60 dBA, building components including windows, walls and doors, where applicable, need to be designed so that the indoor sound levels comply with the sound level limits in Table C-2. The acoustical performance of the building components (windows, doors and walls) needs to be specified.

In addition, the exterior walls of the first row of dwellings next to railway tracks are to be built to a minimum of brick veneer or masonry equivalent construction, from the foundation to the rafters when the rail traffic L_{eq} (24-hour), estimated at a location of a nighttime receptor, is greater than 60 dBA, and when the first row of dwellings is within 100 metres of the tracks.

C7.3 Combination of Road and Rail Noise

The noise impact in the OLA and in the plane of a window, and the requirements for outdoor measures, ventilation measures and warning clauses, should be determined by combining road and rail traffic sound levels.

The assessment of the indoor sound levels and the resultant requirement for the acoustical descriptors of the building components should be done separately for road

and rail noise. The resultant acoustical descriptors should be subsequently combined to determine the required components.

C7.4 Aircraft Noise Control Measures

If the outdoor NEF/NEP value is less than 25, further assessment is not required.

If the receptor location is within the NEF/NEP contours of 25 and 30, the dwelling should be designed with a provision for central air conditioning. In addition, building components including windows, doors, walls and ceiling/roof should be designed to achieve the indoor sound level limits of Table C-4. Warning clause Type C is also recommended.

If the municipality, in accordance with Reference [26], approves residential development above NEF/NEP 30, central air conditioning should be implemented with warning clauses Type B and D. In addition, building components including windows, doors, walls and ceiling/roof should be designed to achieve the indoor sound level limits of Table C-4.

C7.5 Combination of Road, Rail and Aircraft Noise

The noise impact in the OLA and in the plane of a window, and the requirements for outdoor measures, ventilation measures and warning clauses, should be calculated separately for surface transportation and aircraft noise. The surface transportation noise impact should be determined by combining road and rail traffic sound levels.

The assessment of the indoor sound levels, and the requirements for the acoustical performance of building components should be done separately for road noise, rail noise and aircraft noise. The resultant sound isolation parameters should be subsequently combined logarithmically (on an energy basis) to determine the overall acoustical parameter. Selection of the required components should be based on the overall combined acoustical parameter.

C7.6 Stationary Source Noise Control Measures

Where the noise impact exceeds the applicable sound level limits, mitigation is required in order to meet MOE approval requirements.

The noise control measures may be implemented on the site of the noise sensitive land use or at the source. For noise impacts from stationary sources, the preferred and normally the most economical and practical option is to implement noise control measures at the source.

Although the MOE in not involved in the approval of the noise sensitive land use, the MOE is involved with the stationary sources in the context of MOE approvals. The

In Class 4 areas, where windows for noise sensitive spaces are assumed to be closed, the use of central air conditioning may be acceptable if it forms an essential part of the overall building designs.

C7.9 Verification of Noise Control Measures

It is recommended that the implementation of noise control measures be verified by qualified individuals with experience in environmental acoustics.

C8 Warning Clauses

The use of warning clauses or easements in respect of noise are recommended when circumstances warrant. Noise warning clauses may be used to warn of potential annoyance due to an existing source of noise and/or to warn of excesses above the sound level limits. Direction on the use of warning clauses should be included in agreements that are registered on title to the lands in question. The warning clauses would be included in agreements of Offers of Purchase and Sale, lease/rental agreements and condominium declarations. Alternatively, the use of easements in respect of noise may be appropriate in some circumstances. Additional guidance on the use of noise warning clauses is provided in Section C7.1.1, Section C7.1.2.1, Section C7.1.2.2, Section C7.3 and Section C7.4.

C8.1 Transportation Sources

The following warning clauses may be used individually or in combination:

TYPE A: (see Section C7.1.1)

> "Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally 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."

TYPE B: (see Section C7.1.1 and Section C7.4)

> "Purchasers/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 (rail traffic) (air 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."

TYPE C: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

> "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."

TYPE D: (see Section C7.1.2.1, Section C7.1.2.2 and Section C7.4)

"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."

C8.2 Stationary Sources

It is not acceptable to use warning clauses in place of physical noise control measures to identify an excess over the MOE sound level limits. Warning clause (Type E) for stationary sources may identify a potential concern due to the proximity of the facility but it is not acceptable to justify exceeding the sound level limits.

TYPE E: (see Section C7.6)

"Purchasers/tenants are advised that due to the proximity of the adjacent industry (facility) (utility), noise from the industry (facility) (utility) may at times be audible."

C8.3 Class 4 Area Notification

TYPE F: (see Section B9.2 and Section C4.4.2)

"Purchasers/tenants are advised that sound levels due to the adjacent industry (facility) (utility) are required to comply with sound level limits that are protective of indoor areas and are based on the assumption that windows and exterior doors are closed. This dwelling unit has been supplied with a ventilation/air conditioning system which will allow windows and exterior doors to remain closed."

Appendix C

Traffic Data

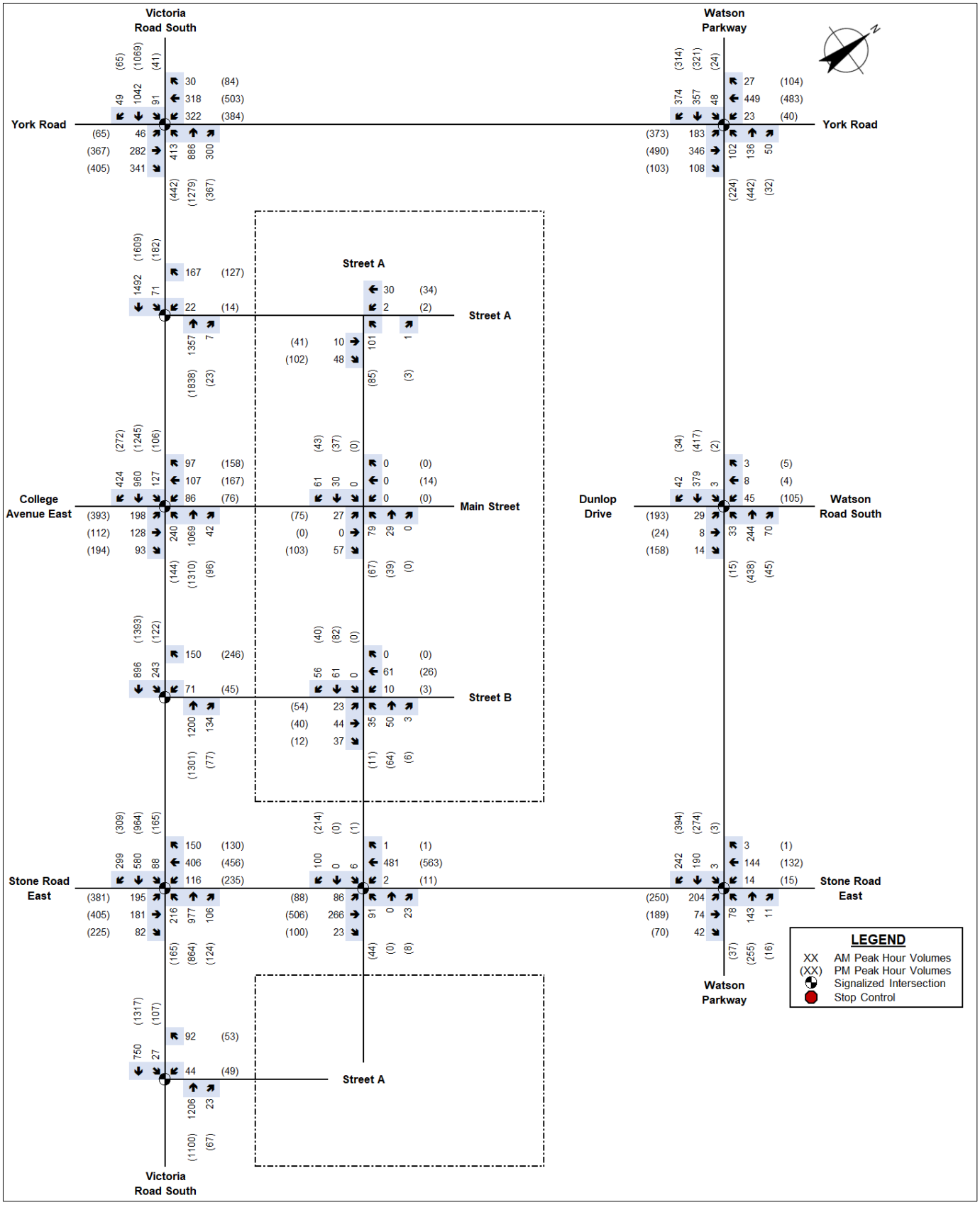


Figure 21 2036 Future Total Traffic Volumes

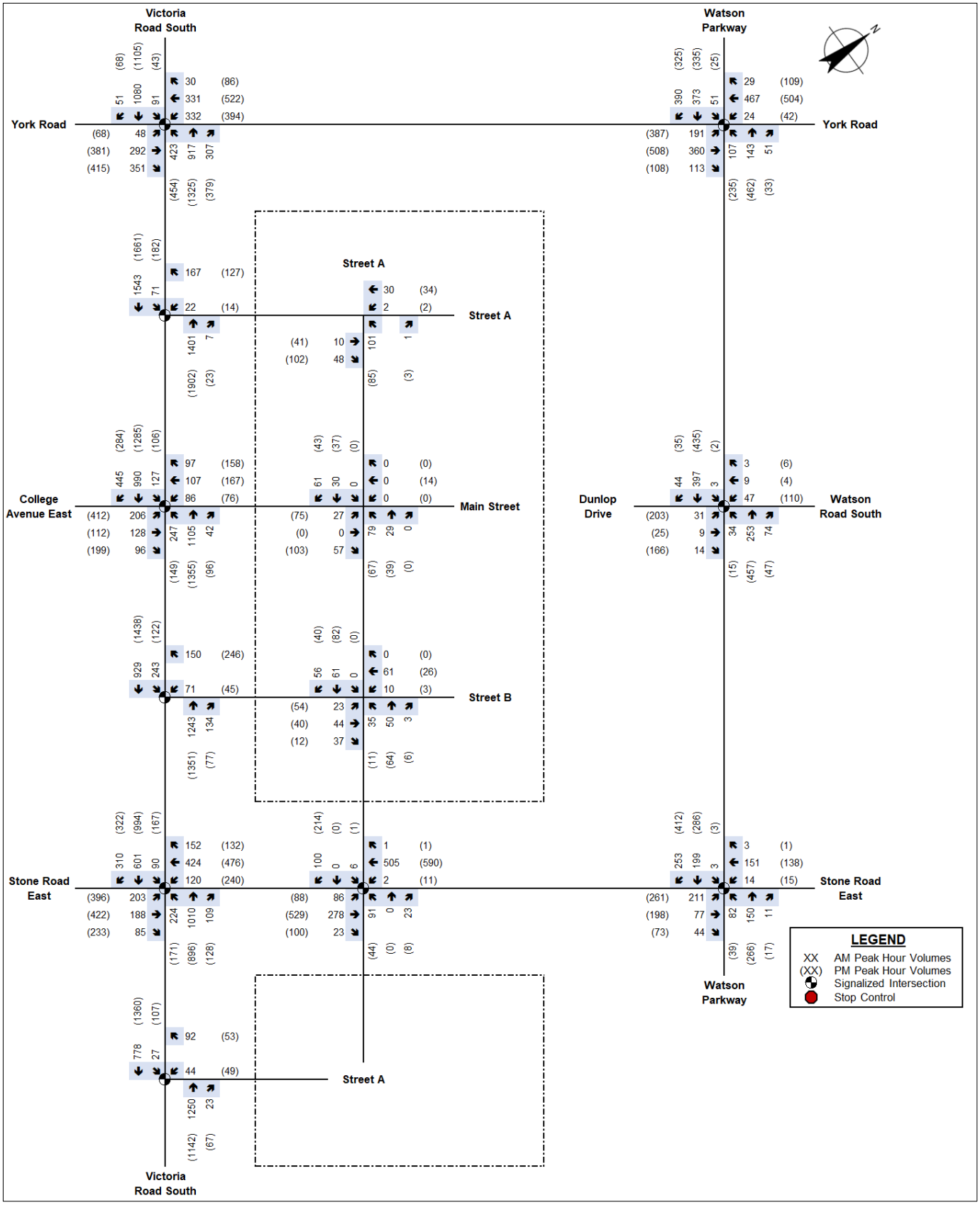


Figure 22 2041 Future Total Traffic Volumes

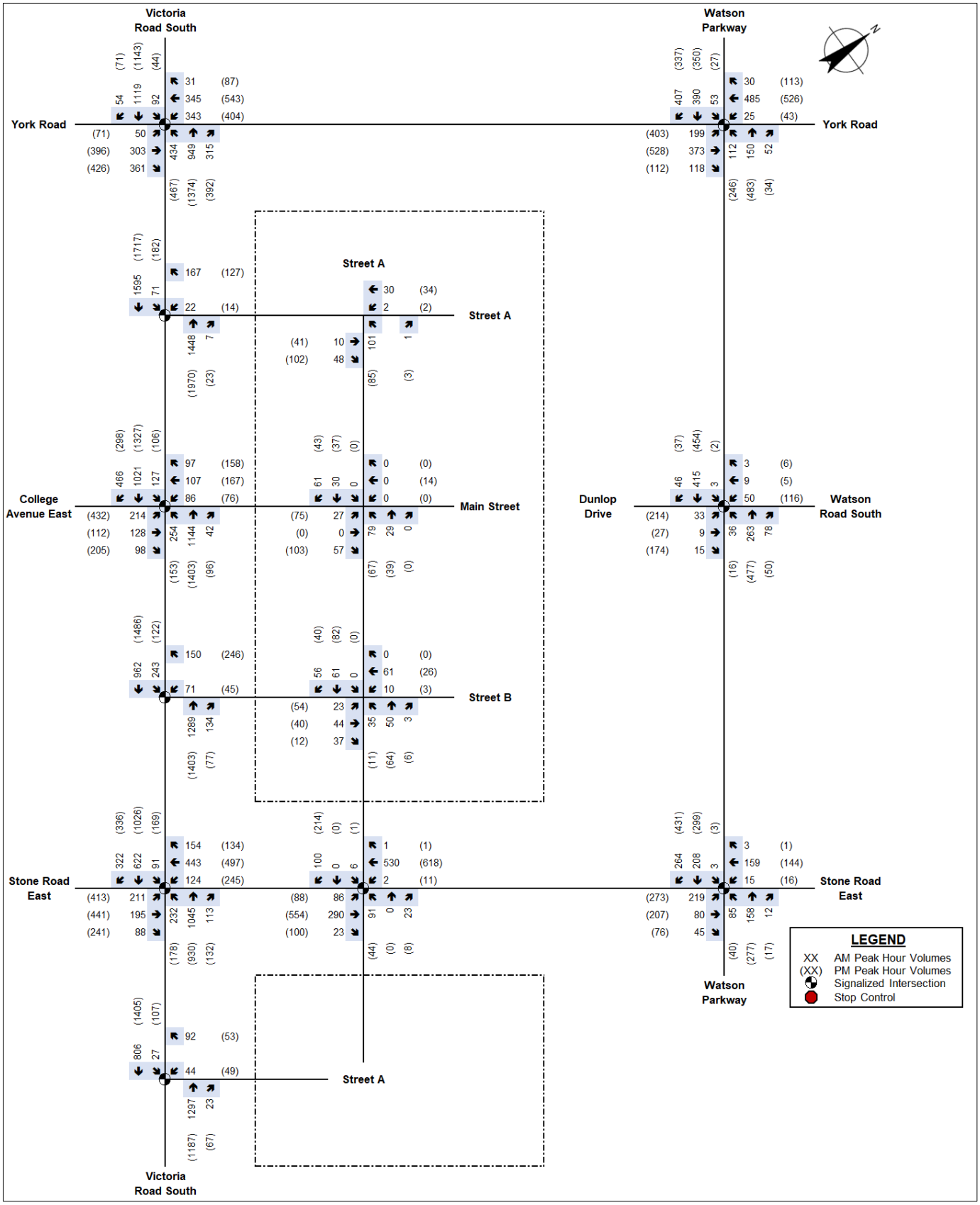


Figure 23 2046 Future Total Traffic Volumes

Charles Carre

Subject: FW: GJR rail traffic data

From: Les Petroczi <Les.Petroczi@guelph.ca>
Sent: Wednesday, January 18, 2023 11:29 AM
To: Carla Illman <CIllman@mte85.com>
Cc: Charles Carre <CCarre@mte85.com>
Subject: Re: GJR rail traffic data

Hi Carla

2-6 trains per day pending customer requests at variable schedules
15-25MPH up to the station name sign “Guelph” and 10MPH up to York Rd
Switching occurs at Kauffan siding tracks at all hours for the customer to the south of our main track
1-2 engines on each train
Up to 35 cars on any given day but volumes are on the increase
We operate up to 7 days per week, hours differ
We manage all Capital projects and maintenance around train schedules so we can for example have a tie gang working between the hours of 11pm-8am.

Please let me know if you have any other questions.

Les

Les Petroczi | General Manager
Guelph Junction Railway | Infrastructure, Development and Enterprise
City of Guelph
519-766-7121
les.petroczi@guelph.ca

Appendix D

STAMSON Output Files

ROAD TRAFFIC
SETBACK LINES

STAMSON 5.0 NORMAL REPORT Date: 09-12-2025 11:44:09
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: vs26560.te Time Period: Day/Night 16/8 hours
Description: VICTORIA ROAD SEGMENT 2 - 65/60 INDOOR

Road data, segment # 1: Vic Seg 2 (day/night)

Car traffic volume : 31706/3523 veh/TimePeriod
Medium truck volume : 1307/145 veh/TimePeriod
Heavy truck volume : 503/56 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Vic Seg 2 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 84.62 / 59.52 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Vic Seg 2 (day)

Source height = 1.11 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.51	0.00	-7.51	0.00	0.00	0.00	0.00	65.00

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA

Results segment # 1: Vic Seg 2 (night)

Source height = 1.11 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.98	0.00	-5.99	0.00	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.00
(NIGHT): 60.00

STAMSON 5.0 NORMAL REPORT Date: 09-12-2025 11:37:33
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: vs25550.te Time Period: Day/Night 16/8 hours
Description: VICTORIA ROAD SEGMENT 2 - 55/50 INDOOR

Road data, segment # 1: Vic Seg 2 (day/night)

Car traffic volume : 31706/3523 veh/TimePeriod
Medium truck volume : 1307/145 veh/TimePeriod
Heavy truck volume : 503/56 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Vic Seg 2 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 500.00 / 500.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Vic Seg 2 (day)

Source height = 1.11 m

ROAD (0.00 + 57.28 + 0.00) = 57.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.51	0.00	-15.23	0.00	0.00	0.00	0.00	57.28

Segment Leq : 57.28 dBA

Total Leq All Segments: 57.28 dBA

Results segment # 1: Vic Seg 2 (night)

Source height = 1.11 m

ROAD (0.00 + 50.75 + 0.00) = 50.75 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	65.98	0.00	-15.23	0.00	0.00	0.00	0.00	50.75

Segment Leq : 50.75 dBA

Total Leq All Segments: 50.75 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.28
(NIGHT): 50.75

STAMSON 5.0 NORMAL REPORT Date: 09-12-2025 11:42:13
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: vs260out.te Time Period: 16 hours
Description: VICTORIA ROAD SEGMENT 2 - 60 DAYTIME OUTDOOR

Road data, segment # 1: Vic Seg 2

Car traffic volume : 31706 veh/TimePeriod
Medium truck volume : 1307 veh/TimePeriod
Heavy truck volume : 503 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Vic Seg 2

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 267.45 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Vic Seg 2

Source height = 1.11 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.51	0.00	-12.51	0.00	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 Dba

TOTAL Leq FROM ALL SOURCES: 60.00

STAMSON 5.0 NORMAL REPORT Date: 09-12-2025 11:40:28
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: vs255out.te Time Period: 16 hours
Description: VICTORIA ROAD SEGMENT 2 - 55 DAYTIME OUTDOOR

Road data, segment # 1: Vic Seg 2

Car traffic volume : 31706 veh/TimePeriod
Medium truck volume : 1307 veh/TimePeriod
Heavy truck volume : 503 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Vic Seg 2

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 500.00 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Vic Seg 2

Source height = 1.11 m

ROAD (0.00 + 57.28 + 0.00) = 57.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.51	0.00	-15.23	0.00	0.00	0.00	0.00	57.28

Segment Leq : 57.28 dBA

Total Leq All Segments: 57.28 dBA

TOTAL Leq FROM ALL SOURCES: 57.28

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 14:06:27
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ss16560.te Time Period: Day/Night 16/8 hours
Description: STONE ROAD SEGMENT 1 - 65/60 INDOOR

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

Car traffic volume : 13048/1450 veh/TimePeriod
Medium truck volume : 1165/129 veh/TimePeriod
Heavy truck volume : 349/39 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Stone Seg 1 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 40.34 / 28.38 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Stone Seg 1 (day)

Source height = 1.24 m

ROAD (0.00 + 65.00 + 0.00) = 65.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.29	0.00	-4.30	0.00	0.00	0.00	0.00	65.00

Segment Leq : 65.00 dBA

Total Leq All Segments: 65.00 dBA

Results segment # 1: Stone Seg 1 (night)

Source height = 1.25 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.77	0.00	-2.77	0.00	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 65.00
(NIGHT): 60.00

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 14:00:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ss15550.te Time Period: Day/Night 16/8 hours
Description: STONE ROAD SEGMENT 1 - 55/50 INDOOR

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

Car traffic volume : 13048/1450 veh/TimePeriod
Medium truck volume : 1165/129 veh/TimePeriod
Heavy truck volume : 349/39 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Stone Seg 1 (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 403.38 / 284.02 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Stone Seg 1 (day)

Source height = 1.24 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.29	0.00	-14.30	0.00	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: Stone Seg 1 (night)

Source height = 1.25 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.77	0.00	-12.77	0.00	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 14:03:20
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ss160out.te Time Period: 16 hours
Description: STONE ROAD SEGMENT 1 - 60 DAYTIME OUTDOOR

Road data, segment # 1: Stone Seg 1

Car traffic volume : 13048 veh/TimePeriod
Medium truck volume : 1165 veh/TimePeriod
Heavy truck volume : 349 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Stone Seg 1

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 127.49 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Stone Seg 1

Source height = 1.24 m

ROAD (0.00 + 60.00 + 0.00) = 60.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.29	0.00	-9.29	0.00	0.00	0.00	0.00	60.00

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES: 60.00

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 14:01:38
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: ss155out.te Time Period: 16 hours
Description: STONE ROAD SEGMENT 1 - 55 DAYTIME OUTDOOR

Road data, segment # 1: Stone Seg 1

Car traffic volume : 13048 veh/TimePeriod
Medium truck volume : 1165 veh/TimePeriod
Heavy truck volume : 349 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 2 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Stone Seg 1

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 403.38 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Stone Seg 1

Source height = 1.24 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	69.29	0.00	-14.30	0.00	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES: 55.00

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:37:24
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: as46560.te Time Period: 16 hours
Description: STREET A SEGMENT 4 - 65/60 INDOOR

Road data, segment # 1: St.A Seg 1

Car traffic volume : 2637 veh/TimePeriod
Medium truck volume : 27 veh/TimePeriod
Heavy truck volume : 0 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: St.A Seg 1

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 m
Receiver height : 1.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: St.A Seg 1

Source height = 0.50 m

ROAD (0.00 + 54.88 + 0.00) = 54.88 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	54.88	0.00	0.00	0.00	0.00	0.00	0.00	54.88

Segment Leq : 54.88 dBA

Total Leq All Segments: 54.88 dBA

TOTAL Leq FROM ALL SOURCES: 54.88

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:19:04
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b6560.te Time Period: Day/Night 16/8 hours
Description: STREET B - 65/60 INDOOR

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

Car traffic volume : 3537/393 veh/TimePeriod
Medium truck volume : 36/4 veh/TimePeriod
Heavy truck volume : 0/0 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Street B (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Street B (day)

Source height = 0.50 m

ROAD (0.00 + 56.15 + 0.00) = 56.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	56.15	0.00	0.00	0.00	0.00	0.00	0.00	56.15

Segment Leq : 56.15 dBA

Total Leq All Segments: 56.15 dBA

Results segment # 1: Street B (night)

Source height = 0.50 m

ROAD (0.00 + 49.62 + 0.00) = 49.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	49.62	0.00	0.00	0.00	0.00	0.00	0.00	49.62

Segment Leq : 49.62 dBA

Total Leq All Segments: 49.62 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 56.15
(NIGHT): 49.62

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:08:09
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b5550.te Time Period: Day/Night 16/8 hours
Description: STREET B - 55/50 INDOOR

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

Car traffic volume : 3537/393 veh/TimePeriod
Medium truck volume : 36/4 veh/TimePeriod
Heavy truck volume : 0/0 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Street B (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 19.56 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Street B (day)

Source height = 0.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	56.15	0.00	-1.15	0.00	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: Street B (night)

Source height = 0.50 m

ROAD (0.00 + 49.62 + 0.00) = 49.62 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	49.62	0.00	0.00	0.00	0.00	0.00	0.00	49.62

Segment Leq : 49.62 dBA

Total Leq All Segments: 49.62 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 49.62

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:17:02
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b60out.te Time Period: 16 hours
Description: STREET B - 60 DAYTIME OUTDOOR

Road data, segment # 1: Street B

Car traffic volume	3537	veh/TimePeriod
Medium truck volume	36	veh/TimePeriod
Heavy truck volume	0	veh/TimePeriod
Posted speed limit	50	km/h
Road gradient	4	%
Road pavement	1	(Typical asphalt or concrete)

Data for Segment # 1: Street B

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0	
Surface	2	(Reflective ground surface)
Receiver source distance	15.00 m	
Receiver height	1.50 m	
Topography	1	(Flat/gentle slope; no barrier)
Reference angle	0.00	

Results segment # 1: Street B

Source height = 0.50 m

ROAD (0.00 + 56.15 + 0.00) = 56.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	56.15	0.00	0.00	0.00	0.00	0.00	0.00	56.15

Segment Leq : 56.15 dBA

Total Leq All Segments: 56.15 dBA

TOTAL Leq FROM ALL SOURCES: 56.15

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:15:03
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: b55out.te Time Period: 16 hours
Description: STREET B - 55 DAYTIME OUTDOOR

Road data, segment # 1: Street B

Car traffic volume	3537	veh/TimePeriod
Medium truck volume	36	veh/TimePeriod
Heavy truck volume	0	veh/TimePeriod
Posted speed limit	50	km/h
Road gradient	4	%
Road pavement	1	(Typical asphalt or concrete)

Data for Segment # 1: Street B

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0	
Surface	2	(Reflective ground surface)
Receiver source distance	19.56 m	
Receiver height	1.50 m	
Topography	1	(Flat/gentle slope; no barrier)
Reference angle	0.00	

Results segment # 1: Street B

Source height = 0.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	56.15	0.00	-1.15	0.00	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES: 55.00

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:31:52
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: c6560.te Time Period: Day/Night 16/8 hours
Description: STREET C - 65/60 INDOOR

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

Car traffic volume : 5159/573 veh/TimePeriod
Medium truck volume : 52/6 veh/TimePeriod
Heavy truck volume : 0/0 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 3 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Street C (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 15.00 / 15.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Street C (day)

Source height = 0.50 m

ROAD (0.00 + 57.79 + 0.00) = 57.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.79	0.00	0.00	0.00	0.00	0.00	0.00	57.79

Segment Leq : 57.79 dBA

Total Leq All Segments: 57.79 dBA

Results segment # 1: Street C (night)

Source height = 0.50 m

ROAD (0.00 + 51.27 + 0.00) = 51.27 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	51.27	0.00	0.00	0.00	0.00	0.00	0.00	51.27

Segment Leq : 51.27 dBA

Total Leq All Segments: 51.27 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 57.79
(NIGHT): 51.27

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:23:43
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: c5550.te Time Period: Day/Night 16/8 hours
Description: STREET C - 55/50 INDOOR

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

Car traffic volume : 5159/573 veh/TimePeriod
Medium truck volume : 52/6 veh/TimePeriod
Heavy truck volume : 0/0 veh/TimePeriod
Posted speed limit : 50 km/h
Road gradient : 3 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: Street C (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 28.50 / 20.09 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: Street C (day)

Source height = 0.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.79	0.00	-2.79	0.00	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

Results segment # 1: Street C (night)

Source height = 0.50 m

ROAD (0.00 + 50.00 + 0.00) = 50.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	51.27	0.00	-1.27	0.00	0.00	0.00	0.00	50.00

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 55.00
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:27:58
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: c60out.te Time Period: 16 hours
Description: STREET C - 60 DAYTIME OUTDOOR

Road data, segment # 1: Street C

Car traffic volume	5159	veh/TimePeriod
Medium truck volume	52	veh/TimePeriod
Heavy truck volume	0	veh/TimePeriod
Posted speed limit	50	km/h
Road gradient	3	%
Road pavement	1	(Typical asphalt or concrete)

Data for Segment # 1: Street C

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0	
Surface	2	(Reflective ground surface)
Receiver source distance	15.00 m	
Receiver height	1.50 m	
Topography	1	(Flat/gentle slope; no barrier)
Reference angle	0.00	

Results segment # 1: Street C

Source height = 0.50 m

ROAD (0.00 + 57.79 + 0.00) = 57.79 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.79	0.00	0.00	0.00	0.00	0.00	0.00	57.79

Segment Leq : 57.79 dBA

Total Leq All Segments: 57.79 dBA

TOTAL Leq FROM ALL SOURCES: 57.79

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 13:25:56
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: c55out.te Time Period: 16 hours
Description: STREET C - 55 DAYTIME OUTDOOR

Road data, segment # 1: Street C

Car traffic volume	5159	veh/TimePeriod
Medium truck volume	52	veh/TimePeriod
Heavy truck volume	0	veh/TimePeriod
Posted speed limit	50	km/h
Road gradient	3	%
Road pavement	1	(Typical asphalt or concrete)

Data for Segment # 1: Street C

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	0	(No woods.)
No of house rows	0	
Surface	2	(Reflective ground surface)
Receiver source distance	28.50 m	
Receiver height	1.50 m	
Topography	1	(Flat/gentle slope; no barrier)
Reference angle	0.00	

Results segment # 1: Street C

Source height = 0.50 m

ROAD (0.00 + 55.00 + 0.00) = 55.00 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	57.79	0.00	-2.79	0.00	0.00	0.00	0.00	55.00

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES: 55.00

RAIL TRAFFIC
SETBACK LINES

STAMSON 5.0 NORMAL REPORT Date: 07-03-2025 20:32:26
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6560in.te Time Period: Day/Night 16/8 hours
Description: RAILWAY - 65/60 INDOOR

Rail data, segment # 1: GJR (day/night)

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. GJR	0.0/11.0	40.0	2.0	35.0	Diesel!	No

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

Angle1 Angle2	: -90.00 deg	90.00 deg	
Wood depth	: 1	(Wood depth 30 to less than 60 metres)	
No of house rows	: 0 / 0		
Surface	: 2	(Reflective ground surface)	
Receiver source distance	: 15.00 / 29.62	m	
Receiver height	: 1.50 / 4.50	m	
Topography	: 1	(Flat/gentle slope; no barrier)	
No Whistle			
Reference angle	: 0.00		

Results segment # 1: GJR (day)

LOCOMOTIVE (0.00 + -5.00 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	0.00	0.00	0.00	-5.00	0.00	0.00	-5.00

WHEEL (0.00 + -5.00 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	0.00	0.00	0.00	-5.00	0.00	0.00	-5.00

Segment Leq : 0.00 dBA

Total Leq All Segments: 0.00 dBA

Results segment # 1: GJR (night)

LOCOMOTIVE (0.00 + 58.69 + 0.00) = 58.69 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.65	-2.95	0.00	-5.00	0.00	0.00	58.69

WHEEL (0.00 + 54.16 + 0.00) = 54.16 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.12	-2.95	0.00	-5.00	0.00	0.00	54.16

Segment Leq : 60.00 dBA

Total Leq All Segments: 60.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 0.00
(NIGHT): 60.00

STAMSON 5.0 NORMAL REPORT Date: 07-03-2025 20:33:38
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r5550in.te Time Period: Day/Night 16/8 hours
Description: RAILWAY - 55/50 INDOOR

Rail data, segment # 1: GJR (day/night)

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. GJR	0.0/11.0	40.0	2.0	35.0	Diesel!	No

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

Angle1 Angle2	: -90.00 deg	90.00 deg	
Wood depth	: 1	(Wood depth 30 to less than 60 metres)	
No of house rows	: 0 / 0		
Surface	: 2	(Reflective ground surface)	
Receiver source distance	: 15.00 / 296.34	m	
Receiver height	: 1.50 / 4.50	m	
Topography	: 1	(Flat/gentle slope; no barrier)	
No Whistle			
Reference angle	: 0.00		

Results segment # 1: GJR (day)

LOCOMOTIVE (0.00 + -5.00 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	0.00	0.00	0.00	-5.00	0.00	0.00	-5.00

WHEEL (0.00 + -5.00 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	0.00	0.00	0.00	-5.00	0.00	0.00	-5.00

Segment Leq : 0.00 dBA

Total Leq All Segments: 0.00 dBA

Results segment # 1: GJR (night)

LOCOMOTIVE (0.00 + 48.69 + 0.00) = 48.69 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.65	-12.96	0.00	-5.00	0.00	0.00	48.69

WHEEL (0.00 + 44.16 + 0.00) = 44.16 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.12	-12.96	0.00	-5.00	0.00	0.00	44.16

Segment Leq : 50.00 dBA

Total Leq All Segments: 50.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 0.00
(NIGHT): 50.00

STAMSON 5.0 NORMAL REPORT Date: 07-03-2025 20:35:22
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r6055in.te Time Period: Day/Night 16/8 hours
Description: RAILWAY - 60/55 INDOOR (w/ WHISTLE)

Rail data, segment # 1: GJR (day/night)

Train Type	Trains (Left)	Trains (Right)	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. GJR	0.0/5.5	0.0/5.5	40.0	2.0	35.0	Diesel	No

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

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	1	(Wood depth 30 to less than 60 metres)
No of house rows	0 / 0	
Surface	2	(Reflective ground surface)
Receiver source distance	397.22 / 397.22 m	
Receiver height	1.50 / 4.50 m	
Topography	1	(Flat/gentle slope; no barrier)
Whistle Angle	0 deg	Track 1
Reference angle	0.00	

Results segment # 1: GJR (day)

LOCOMOTIVE (0.00 + -19.23 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	0.00	-14.23	0.00	-5.00	0.00	0.00	-19.23

WHEEL (0.00 + -19.23 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	0.00	-14.23	0.00	-5.00	0.00	0.00	-19.23

LEFT WHISTLE (0.00 + 50.82 + 0.00) = 0.00 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-45	0	0.00	0.00	-14.23	-6.00	-5.00	0.00	0.00	50.82

Segment Leq : 0.00 dBA

Total Leq All Segments: 0.00 dBA

Results segment # 1: GJR (night)

LOCOMOTIVE (0.00 + 47.42 + 0.00) = 47.42 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.65	-14.23	0.00	-5.00	0.00	0.00	47.42

WHEEL (0.00 + 42.89 + 0.00) = 42.89 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	62.12	-14.23	0.00	-5.00	0.00	0.00	42.89

LEFT WHISTLE (0.00 + 50.82 + 0.00) = 50.82 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-45	0	0.00	76.05	-14.23	-6.00	-5.00	0.00	0.00	50.82

RIGHT WHISTLE (0.00 + 50.82 + 0.00) = 50.82 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	45	0.00	76.05	-14.23	-6.00	-5.00	0.00	0.00	50.82

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 0.00
(NIGHT): 55.00

STAMSON 5.0 NORMAL REPORT Date: 07-03-2025 20:38:46
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r60DOUT.te Time Period: 16 hours
Description: RAILWAY - 60 DAYTIME OUTDOOR

Rail data, segment # 1: GJR

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. GJR	11.0/0.0	40.0	2.0	35.0	Diesel	No

Data for Segment # 1: GJR

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	1	(Wood depth 30 to less than 60 metres)
No of house rows	0	
Surface	2	(Reflective ground surface)
Receiver source distance	15.00 m	
Receiver height	1.50 m	
Topography	1	(Flat/gentle slope; no barrier)
No Whistle		
Reference angle	0.00	

Results segment # 1: GJR

LOCOMOTIVE (0.00 + 58.64 + 0.00) = 58.64 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	63.64	0.00	0.00	-5.00	0.00	0.00	58.64

WHEEL (0.00 + 54.11 + 0.00) = 54.11 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	59.11	0.00	0.00	-5.00	0.00	0.00	54.11

Segment Leq : 59.95 dBA

Total Leq All Segments: 59.95 dBA

TOTAL Leq FROM ALL SOURCES: 59.95

STAMSON 5.0 NORMAL REPORT Date: 07-03-2025 20:39:33
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: r55DOUT.te Time Period: 16 hours
Description: RAILWAY - 55 DAYTIME OUTDOOR

Rail data, segment # 1: GJR

Train Type	Trains	Speed (km/h)	# loc /Train	# Cars /Train	Eng type	Cont weld
1. GJR	11.0/0.0	40.0	2.0	35.0	Diesel	No

Data for Segment # 1: GJR

Angle1 Angle2	-90.00 deg	90.00 deg
Wood depth	1	(Wood depth 30 to less than 60 metres)
No of house rows	0	
Surface	2	(Reflective ground surface)
Receiver source distance	46.85 m	
Receiver height	1.50 m	
Topography	1	(Flat/gentle slope; no barrier)
No Whistle		
Reference angle	0.00	

Results segment # 1: GJR

LOCOMOTIVE (0.00 + 53.69 + 0.00) = 53.69 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	63.64	-4.95	0.00	-5.00	0.00	0.00	53.69

WHEEL (0.00 + 49.16 + 0.00) = 49.16 dBA

Angle1	Angle2	Alpha	RefLeq	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	59.11	-4.95	0.00	-5.00	0.00	0.00	49.16

Segment Leq : 55.00 dBA

Total Leq All Segments: 55.00 dBA

TOTAL Leq FROM ALL SOURCES: 55.00

COLLEGE AVENUE
EAST ANALYSIS

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:58:08
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: capoa1.te Time Period: Day/Night 16/8 hours
Description: POA1 - COLLEGE AVE W/ VICTORIA

Road data, segment # 1: COLLEGE S1 (day/night)

Car traffic volume : 11442/1271 veh/TimePeriod
Medium truck volume : 787/87 veh/TimePeriod
Heavy truck volume : 74/8 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: COLLEGE S1 (day/night)

Angle1 Angle2 : -90.00 deg 21.00 deg
Wood depth : 2 (Wood depth 60 metres or more)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 500.00 / 500.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: COLLEGE S2 (day/night)

Car traffic volume : 11442/1271 veh/TimePeriod
Medium truck volume : 787/87 veh/TimePeriod
Heavy truck volume : 74/8 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: COLLEGE S2 (day/night)

Angle1 Angle2 : 21.00 deg 78.00 deg
Wood depth : 2 (Wood depth 60 metres or more)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 189.00 / 189.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 3: COLLEGE S3 (day/night)

Car traffic volume : 11442/320 veh/TimePeriod
Medium truck volume : 787/0 veh/TimePeriod
Heavy truck volume : 74/0 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 3: COLLEGE S3 (day/night)

Angle1 Angle2 : 78.00 deg 84.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 185.00 / 185.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 4: VICTORIA RD (day/night)

Car traffic volume : 32864/3652 veh/TimePeriod
Medium truck volume : 1355/151 veh/TimePeriod
Heavy truck volume : 521/58 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 4: VICTORIA RD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 17.00 / 17.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: COLLEGE S1 (day)

Source height = 0.88 m

ROAD (0.00 + 32.70 + 0.00) = 32.70 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	21	0.38	66.54	0.00	-20.99	-2.85	-10.00	0.00	0.00	32.70

Segment Leq : 32.70 Dba

Results segment # 2: COLLEGE S2 (day)

Source height = 0.88 m

ROAD (0.00 + 35.53 + 0.00) = 35.53 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
21	78	0.38	66.54	0.00	-15.17	-5.84	-10.00	0.00	0.00	35.53

Segment Leq : 35.53 dBA

Results segment # 3: COLLEGE S3 (day)

Source height = 0.88 m

ROAD (0.00 + 40.86 + 0.00) = 40.86 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
78	84	0.00	66.54	0.00	-10.91	-14.77	0.00	0.00	0.00	40.86

Segment Leq : 40.86 dBA

Results segment # 4: VICTORIA RD (day)

Source height = 1.11 m

ROAD (0.00 + 72.13 + 0.00) = 72.13 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.67	0.00	-0.54	0.00	0.00	0.00	0.00	72.13

Segment Leq : 72.13 dBA

Total Leq All Segments: 72.13 dBA

Results segment # 1: COLLEGE S1 (night)

Source height = 0.87 m

ROAD (0.00 + 27.66 + 0.00) = 27.66 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	21	0.29	59.98	0.00	-19.63	-2.70	-10.00	0.00	0.00	27.66

Segment Leq : 27.66 dBA

Results segment # 2: COLLEGE S2 (night)

Source height = 0.87 m

ROAD (0.00 + 30.15 + 0.00) = 30.15 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
21	78	0.29	59.98	0.00	-14.18	-5.65	-10.00	0.00	0.00	30.15

Segment Leq : 30.15 dBA

Results segment # 3: COLLEGE S3 (night)

Source height = 0.50 m

ROAD (0.00 + 24.67 + 0.00) = 24.67 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
78	84	0.00	50.35	0.00	-10.91	-14.77	0.00	0.00	0.00	24.67

Segment Leq : 24.67 dBA

Results segment # 4: VICTORIA RD (night)

Source height = 1.11 m

ROAD (0.00 + 65.60 + 0.00) = 65.60 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.14	0.00	-0.54	0.00	0.00	0.00	0.00	65.60

Segment Leq : 65.60 dBA

Total Leq All Segments: 65.60 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 72.13
(NIGHT): 65.60

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 11:59:11
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: capoa1v.te Time Period: Day/Night 16/8 hours
Description: POA1 - VICTORIA ONLY

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

Car traffic volume : 32864/3652 veh/TimePeriod
Medium truck volume : 1355/151 veh/TimePeriod
Heavy truck volume : 521/58 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: VICTORIA RD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 17.00 / 17.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: VICTORIA RD (day)

Source height = 1.11 m

ROAD (0.00 + 72.13 + 0.00) = 72.13 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.67	0.00	-0.54	0.00	0.00	0.00	0.00	72.13

Segment Leq : 72.13 dBA

Total Leq All Segments: 72.13 dBA

Results segment # 1: VICTORIA RD (night)

Source height = 1.11 m

ROAD (0.00 + 65.60 + 0.00) = 65.60 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.14	0.00	-0.54	0.00	0.00	0.00	0.00	65.60

Segment Leq : 65.60 dBA

Total Leq All Segments: 65.60 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 72.13
(NIGHT): 65.60

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 12:48:07
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: capoa2.te Time Period: Day/Night 16/8 hours
Description: POA2 - COLLEGE AVE W/ VICTORIA

Road data, segment # 1: COLLEGE S1 (day/night)

Car traffic volume : 11442/1271 veh/TimePeriod
Medium truck volume : 787/87 veh/TimePeriod
Heavy truck volume : 74/8 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 1: COLLEGE S1 (day/night)

Angle1 Angle2 : -90.00 deg 21.00 deg
Wood depth : 2 (Wood depth 60 metres or more)
No of house rows : 0 / 0
Surface : 1 (Absorptive ground surface)
Receiver source distance : 500.00 / 500.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 2: COLLEGE S2 (day/night)

Car traffic volume : 11442/1271 veh/TimePeriod
Medium truck volume : 787/87 veh/TimePeriod
Heavy truck volume : 74/8 veh/TimePeriod
Posted speed limit : 60 km/h
Road gradient : 4 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 2: COLLEGE S2 (day/night)

Angle1 Angle2 : 21.00 deg 78.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 28.00 / 28.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Road data, segment # 3: VICTORIA RD (day/night)

Car traffic volume : 32864/3652 veh/TimePeriod
Medium truck volume : 1355/151 veh/TimePeriod
Heavy truck volume : 521/58 veh/TimePeriod
Posted speed limit : 70 km/h
Road gradient : 1 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 3: VICTORIA RD (day/night)

Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0 / 0
Surface : 2 (Reflective ground surface)
Receiver source distance : 17.00 / 17.00 m
Receiver height : 1.50 / 4.50 m
Topography : 1 (Flat/gentle slope; no barrier)
Reference angle : 0.00

Results segment # 1: COLLEGE S1 (day)

Source height = 0.88 m

ROAD (0.00 + 32.70 + 0.00) = 32.70 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	21	0.38	66.54	0.00	-20.99	-2.85	-10.00	0.00	0.00	32.70

Segment Leq : 32.70 dBA

Results segment # 2: COLLEGE S2 (day)

Source height = 0.88 m

ROAD (0.00 + 58.84 + 0.00) = 58.84 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
21	78	0.00	66.54	0.00	-2.71	-4.99	0.00	0.00	0.00	58.84

Segment Leq : 58.84 dBA

Results segment # 3: VICTORIA RD (day)

Source height = 1.11 m

ROAD (0.00 + 72.13 + 0.00) = 72.13 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	72.67	0.00	-0.54	0.00	0.00	0.00	0.00	72.13

Segment Leq : 72.13 dBA

Total Leq All Segments: 72.33 dBA

Results segment # 1: COLLEGE S1 (night)

Source height = 0.87 m

ROAD (0.00 + 27.66 + 0.00) = 27.66 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	21	0.29	59.98	0.00	-19.63	-2.70	-10.00	0.00	0.00	27.66

Segment Leq : 27.66 dBA

Results segment # 2: COLLEGE S2 (night)

Source height = 0.87 m

ROAD (0.00 + 52.28 + 0.00) = 52.28 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
21	78	0.00	59.98	0.00	-2.71	-4.99	0.00	0.00	0.00	52.28

Segment Leq : 52.28 dBA

Results segment # 3: VICTORIA RD (night)

Source height = 1.11 m

ROAD (0.00 + 65.60 + 0.00) = 65.60 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-90	90	0.00	66.14	0.00	-0.54	0.00	0.00	0.00	0.00	65.60

Segment Leq : 65.60 dBA

Total Leq All Segments: 65.80 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 72.33
(NIGHT): 65.80

STAMSON 5.0 NORMAL REPORT Date: 08-12-2025 12:49:14
MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT

Filename: capoa2v.te Time Period: Day/Night 16/8 hours
Description: POA2 - VICTORIA ONLY

```
Road data, segment # 1: VICTORIA RD (day/night)
-----------------------------------------------
Car traffic volume  : 32864/3652  veh/TimePeriod
Medium truck volume :  1355/151   veh/TimePeriod
Heavy truck volume  :   521/58    veh/TimePeriod
Posted speed limit  :    70 km/h
Road gradient       :     1 %
Road pavement       :     1 (Typical asphalt or concrete)

Data for Segment # 1: VICTORIA RD (day/night)
---------------------------------------------
Angle1   Angle2           : -90.00 deg   90.00 deg
Wood depth                :      0       (No woods.)
No of house rows          :      0 / 0
Surface                   :      2       (Reflective ground surface)
Receiver source distance  :  17.00 / 17.00  m
Receiver height           :   1.50 / 4.50   m
Topography                :      1       (Flat/gentle slope; no barrier)
Reference angle           :   0.00

Results segment # 1: VICTORIA RD (day)
--------------------------------------

Source height = 1.11 m

ROAD (0.00 + 72.13 + 0.00) = 72.13 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  72.67   0.00  -0.54   0.00   0.00   0.00   0.00  72.13
-------------------------------------------------------------------------------

Segment Leq : 72.13 dBA

Total Leq All Segments: 72.13 dBA

Results segment # 1: VICTORIA RD (night)
----------------------------------------

Source height = 1.11 m

ROAD (0.00 + 65.60 + 0.00) = 65.60 dBA
Angle1 Angle2  Alpha RefLeq  P.Adj  D.Adj  F.Adj  W.Adj  H.Adj  B.Adj SubLeq
-------------------------------------------------------------------------------
   -90     90   0.00  66.14   0.00  -0.54   0.00   0.00   0.00   0.00  65.60
-------------------------------------------------------------------------------

Segment Leq : 65.60 dBA

Total Leq All Segments: 65.60 dB

TOTAL Leq FROM ALL SOURCES (DAY): 72.13
                           (NIGHT): 65.60
```

Appendix E

Setback Line Hand Calculations

GID

ENVIRONMENTAL NOISE ASSESSMENT

City of Guelph, Ontario

Project Number: 46927-104

Date: December 12, 2025

Design By: MPW

File: Q:\46927\104\Environmental Noise Assessment\Road Traffic Data\2nd Sub DPA\GID Traffic Volume Calculations.xlsx

Hand Calculation of Setbacks

$I_2 = I_1 - 10 \log (D_2/D_1)$ [dBA]

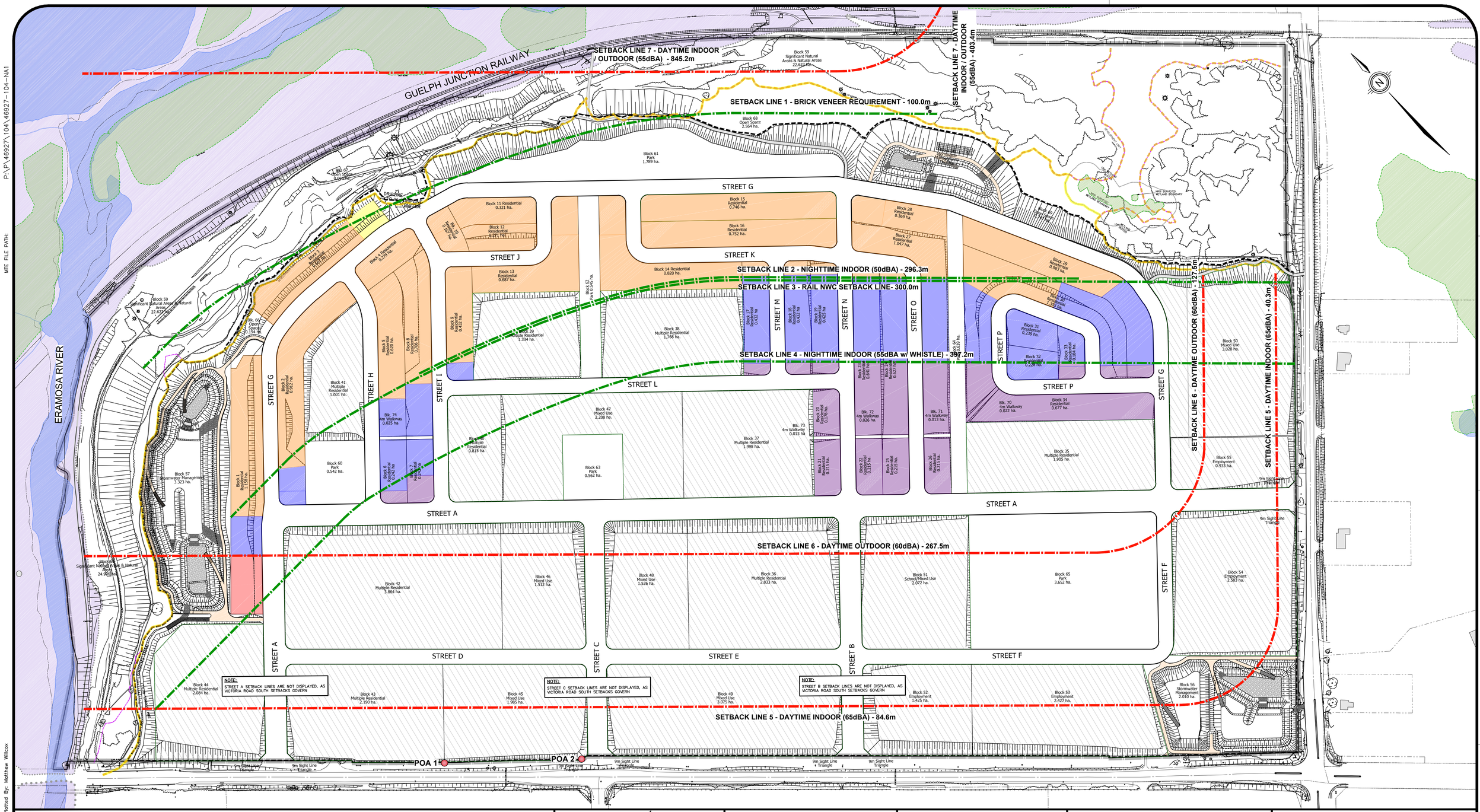
where; I_1 = sound level, in dBA, of initial calculation at distance D_1

I_2 = sound level, in dBA, at distance D_2

D_1 = distance of initial noise intensity (I_1) calculation (500m for the maximum distance calculable by Stamson)

D_2 = resulting distance beyond D_1 where noise intensity I_2 is achieved

Street	Setback	I_1	I_2	D_2	D_1
Victoria Road S	Daytime - Outdoor Setback (55 dBA)	57.28	55.00	845.21	500.00
Victoria Road S	Daytime - Indoor Setback (55 dBA)	57.28	55.00	845.21	500.00
Victoria Road S	Nighttime - Indoor Setback (50 dBA)	50.75	50.00	594.18	500.00



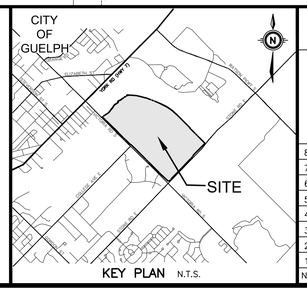
LEGEND

- SITE BOUNDARY
- DEVELOPMENT LIMIT
- PROPOSED ROW
- ROAD SETBACK LINE
- RAIL SETBACK LINE
- EXISTING EMBANKMENT
- PROPOSED EMBANKMENT

POA 1 — POINT OF ASSESSMENT (POA) – UTILIZED TO COMPLETE COLLEGE AVENUE ASSESSMENT

NOISE ASSESSMENT TO BE COMPLETED AS PART OF SITE PLAN APPROVAL PROCESS

- –TYPE A+C NOISE WARNING CLAUSES –PROVISIONS FOR AIR CONDITIONING
- –TYPE A+C NOISE WARNING CLAUSES –PROVISIONS FOR AIR CONDITIONING –STC CALCULATIONS REQUIRED FOR SPECIAL BUILDING COMPONENTS
- –NOISE ATTENTIONS BARRIER –TYPE B+C NOISE WARNING CLAUSES –PROVISIONED FOR ARE CONDITIONING –STC CALCULATIONS REVISED FOR SPECIAL BUILDING COMPONENTS
- –TYPE A+C NOISE WARNING CLAUSES –PROVISIONS FOR AIR CONDITION –STC CALCULATIONS REQUIRED FOR SPECIAL BUILDING COMPONENTS –RAIL NOISE WARNING CLAUSE
- –TYPE A+C NOISE WARNING CLAUSE –PROVISIONS FOR AIR CONDITION –STC CALCULATIONS REQUIRED FOR SPECIAL BUILDING COMPONENTS –RAIL NOISE WARNING CLAUSE –EWS (BRICK VENEER) OR MASONRY EQUIVALENT WALLS REQUIRED



KEY PLAN N.T.S.

CITY of GUELPH

No.	REVISION	BY	DATE
8.			
7.			
6.			
5.			
4.			
3.			
2.			
1.	1ST DRAFT PLAN SUBMISSION	DPH	2025-12-12

GEODETIC BM ELEV. = m

SITE BENCHMARK ELEV. = 341.866m
CUT CROSS PN CONCRETE TRANSFORMER PAD LOCATED AT SOUTHEAST CORNER OF ADMINISTRATION BUILDING MTE PNO 9205

OWNER
FUSION HOMES
500 HANLON CREEK BOULEVARD GUELPH, ONTARIO

PROJECT
GUELPH INNOVATION DISTRICT LANDS
588 STONE ROAD EAST GUELPH, ONTARIO

DRAWING
NOISE ASSESMENT PLAN

MTE
Engineers, Scientists, Surveyors
519-743-6500

Project Manager D.HICKS	Project No. 46927-104
Design By ALN	Checked By CJC
Drawn By AXL	Checked By ALN
Surveyed By MTE	Drawing No. NA1.1
Date 11/7/2024	
Scale 1:2000	Sheet of