



ENVIRONMENTAL NOISE FEASIBILITY STUDY

PART OF LOTS 21&22, CONCESSION 5

Proposed Residential Subdivision
Town of Caledon

JUNE 5, 2026

PROJECT: 125-0041/R257210.0410

PREPARED FOR:

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Environmental Noise Feasibility Study

LOTS 22&22, CONCESSION 5

Proposed Residential Subdivision

Town of Caledon

EXECUTIVE SUMMARY

Trinity Consultants Canada Inc. – Valcoustics was retained to prepare an Environmental Noise Feasibility Study for the proposed residential subdivision in support of the Draft Plan of Subdivision application submission to the Town of Caledon.

The proposed development will consist of detached dwellings (Lots 1 to 515), street townhouses (Blocks 516 to 590), back-to-back townhouses (Blocks 591 to 609), rear lane townhouses (Blocks 610 to 675), a mixed-use/retail block (Block 676), a school block (Block 677), park blocks (Blocks 678 and 679), an open space block (687), a stormwater management pond (Block 690), environmental policy area blocks (Blocks 691 to 694) and residential reserve blocks (Blocks 695 to 701). The residential reserve blocks will be combined with lots/blocks on the neighbouring land parcels to form complete residential lots/blocks.

The transportation noise source with the potential for impact at the subject site is road traffic on Bramalea Road, Old School Road, Torbram Road and the new internal collector roadways within the development (Streets 'A', 'B' and 'C'). There are no stationary noise sources in the vicinity that are expected to have an impact at the subject site.

To meet the noise guideline limits:

- Dwellings adjacent to Bramalea Road, Old School Road, Street 'A', and Street 'C' require mandatory air conditioning to allow windows to remain closed for noise control purposes.
- The provision for adding air conditioning is required at Blocks 561, 600, 617 to 623, 636, 649 to 656, units fronting Street 'B' in partial block 696, westernmost unit of partial block 697; and Lots 1 to 11, 91, 132 to 141, 193, 247, 248, 331, 361, and 364 (see Figure 2 for exact block locations).
- Sound barriers are required (see Figure 2):
 - 1.8 m high at Lots 1 to 10, 32, 131, 193, 194, 249, and Block 561 (easternmost unit);
 - 2.0 m high at Lots 31 and 285;
 - 2.5 m high at Lot 168, 169, 246, 332, 362, and 363.

- To meet the indoor noise criteria:
 - For townhouse blocks along Bramalea Road (Block 610 to 616), upgraded wall construction meeting STC 54 (e.g. brick / stone veneer) and windows meeting STC 28 are recommended;
 - For dwellings along Old School Road (Blocks 629 to 635, northern unit of partial block 696), Street 'C' (Blocks 626 to 628 and 661 to 665; and Lots 31 to 53, 118 to 131, 168, 169, 194 to 246, and 249 to 285, 332, 362, 363 and partial blocks 696 to 700), standard wall construction meeting STC 37 and exterior windows meeting STC 28 are recommended;
 - Exterior wall and window construction meeting the minimum non-acoustical requirements of the Ontario Building Code (OBC) are sufficient to meet the indoor noise criteria at all other dwellings.
 - Refer to Figure 2 for exact block locations/numbers.

The specific wall and window requirements should be confirmed once detailed building plans are available.

1.0 INTRODUCTION

Trinity Consultants Canada Inc. – Valcoustics was retained to prepare an Environmental Noise Feasibility Study for the proposed mixed-use development in support of the Draft Plan of Subdivision application submission to the Town of Caledon.

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

1.1 THE SITE AND SURROUNDING AREA

The subject site is located within the Mayfield Tullamore Tertiary Plan area in the Town of Caledon. The site is bounded by:

- Old School Road, with existing dwellings and agricultural uses beyond, to the north;
- Future residential development in the Mayfield Tullamore Tertiary Plan area to the east and south; and
- Bramalea Road (at the northern portion of the site) and future residential development and environmental policy area blocks in the Mayfield Tullamore Tertiary Plan area (at the southern portion of the site) to the west.

The site is currently occupied by dwellings and agricultural uses that will be demolished as part of the development.

Figure 1 shows a key plan.

This report was prepared using the Draft Plan of Subdivision, prepared by Glen Schnarr and Associates, dated April 20, 2026. The Draft Plan of Subdivision is included as Figure 2.

1.2 THE PROPOSED DEVELOPMENT

The proposed development will consist of detached dwellings (Lots 1 to 515), street townhouses (Blocks 516 to 590), back-to-back townhouses (Blocks 591 to 609), rear lane townhouses (Blocks 610 to 675), a mixed-use/retail block (Block 676), a school block (Block 677), park blocks (Blocks 678 and 679), an open space block (687), a stormwater management pond (Block 690), environmental policy area blocks (Blocks 691 to 694) and residential reserve blocks (Blocks 695 to 701). The residential reserve blocks will be combined with lots/blocks on the neighbouring land parcels to form complete residential lots/blocks.

It is understood that the detached dwellings will be two storeys, and the townhouse blocks will be two to three storeys. All detached dwellings and street townhouse units will be provided with grade-level rear yard outdoor amenity space. The rear lane townhouses, and back-to-back townhouses will be provided with small (less than 4 m in depth) balconies or terraces.

2.0 NOISE SOURCES

2.1 TRANSPORTATION SOURCES

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

2.1.1 Road Traffic

The roadways with the potential to impact the site are Bramalea Road, Old School Road, Torbram Road and the new internal collector roadways within the development (Streets 'A', 'B' and 'C'). Other roadways are either far enough removed from the site or are anticipated to have low traffic volumes and are not expected to create a significant noise impact on the site.

Future (year 2051) volumes on these roadways were obtained from the Mayfield Tullamore Community Transportation Study (TS), prepared by BA Group (Reference 7). The traffic volumes were provided in the form of future peak hour turning movement count (TMC) data. The 24-hour traffic volumes were calculated by multiplying the higher of the AM or PM peak hour volume by 10.

Notes regarding the internal collectors:

- Street 'B' on the Draft Plan (i.e the north-south collector with a 23.5 m R.O.W. connecting to Old School Road) is referred to as Street 'C' in the TS. It is noted that the R.O.W. of Street 'B' reduces to 18.0 m south of Street 'A'. It was therefore assumed that the portion of the Street 'B' south of Street 'A' functions similar to a local road that would not have a significant noise impact at the neighbouring dwellings; thus, this portion of Street 'B' was not included in the analysis.
- Street 'C' on the Draft Plan (i.e. the east-west collector with a 20 m R.O.W. connecting to Bramalea Road) is referred to as Street 'B' in the TS.

- Street 'A' on the Draft Plan (i.e. an east-west collector with a 26 m R.O.W.) does not appear to be included in the TS. The volumes for Street 'C' were therefore applied to Street 'A'.

Truck percentages were not included in the future traffic data. Medium and heavy truck percentages were assumed to be 3% and 2%, respectively, of the total traffic volume on all roadways.

The day/night split for all roadways was assumed to be 90%/10%, as is typical for well travelled roadways.

The posted speed limit was used for Bramalea Road, Old School Road and Torbram Road. The speed limit on the internal roadways was assumed to be 50 km/h.

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

TABLE 1: ROAD TRAFFIC DATA

Roadway ⁽¹⁾	Year	24-Hour Traffic Volume	% Trucks		Speed Limit (kph) ⁽³⁾	Day/Night Split (%)
			Medium	Heavy		
Bramalea Road	2051	28 100	3	2	90	90/10
Old School Road	2051	12 050	3	2	80	90/10
Torbram Road	2051	8 100	3	2	80	90/10
Street 'A' ⁽²⁾	2051	15 550	3	2	60	90/10
Street 'B'	2051	6 600	3	2	60	90/10
Street 'C'	2051	15 550	3	2	60	90/10

Notes:

- (1) Year 2051 traffic volumes for all roads except Street 'A' were provided in the TS in the form of peak hour TMCs. The 24-hour traffic volumes were calculated by multiplying the higher of the AM and PM peak hour volumes by 10. Truck percentages and day/night splits were assumed. The posted speed limits on Bramalea, Old School Road and Torbram Road were used. The speed limits on the internal roadways were assumed.
- (2) Assumed to have the same traffic data as Street 'C'.
- (3) The vehicle speeds shown in the table are 10 kph higher than the posted speed limits, per Town of Caledon guidelines for transportation noise assessments.

2.2 STATIONARY SOURCES

The land to the southeast of the subject site, on the east side of Torbram Road, is planned for industrial/warehouses uses, some of which are currently under construction. The main noise sources associated with these uses are expected to be truck movements on site, loading/unloading activities and mechanical equipment. Due to the distance separation (460 m), the presence of existing residential dwellings at a closer setback distance and planned residential uses between the subject site and the industrial area, noise from the industrial area is not expected to have a significant impact at the subject site.

The tertiary plan also indicates that school blocks, mixed-use blocks and urban corridor blocks will be located within the neighbouring development parcels. These blocks will need to be designed to comply with the noise limits of the MECP set out in NPC-300 at the surrounding noise sensitive uses, including this subject site. Thus, these uses have not been considered in this assessment.

3.0 ENVIRONMENTAL NOISE GUIDELINES

3.1 MECP PUBLICATION NPC-300 – TRANSPORTATION SOURCES

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

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

3.1.1 Transportation Noise Sources

3.1.1.1 Architectural Elements

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

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

3.1.1.2 Ventilation

When the daytime sound level ($L_{eq\ Day}$) at the exterior face of a noise sensitive window is greater than 65 dBA, means must be provided so that windows can be kept closed for noise control purposes and central air conditioning is required. For daytime sound levels between 56 dBA and 65 dBA inclusive, there need only be the provision for adding air conditioning. A warning clause advising the occupant of the potential interference with some activities is also required. At nighttime, air conditioning is required when the sound level exceeds 60 dBA ($L_{eq\ Night}$) at a noise

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

sensitive window (provision for adding air conditioning is required when the sound level is greater than 50 dBA).

3.1.1.3 Outdoors

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

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

3.1.2 Region of Peel

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

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

3.1.3 Town of Caledon

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

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

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

4.0 NOISE IMPACT ASSESSMENT

4.1 METHOD

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

As previously noted, all detached dwellings are expected to be 2 storeys, and all townhouse blocks are expected to be up to 3 storeys. Thus, the daytime and nighttime sound levels at the building facades of the detached dwellings and the townhouse blocks were assessed at heights of 4.5 m and 7.5 m above grade, representing the top-storey plane of windows (the worst-case location).

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

See Figure 2 for the assessment receptor locations.

Inherent screening of each building face due to its orientation to the noise source as well as screening provided by the subject development itself was taken into account. To be conservative screening from the future development on the neighbouring parcels was not included in the assessment. The stormwater management pond was modelled as a reflective surface.

4.2 RESULTS

The highest unmitigated daytime/nighttime sound levels of 70/63 dBA are predicted to occur at the west facade Block 615, the dwelling at the corner of Bramalea Road and Street 'C' (represented by R1 on Figure 2).

The highest unmitigated daytime OLA sound level of 63 dBA is predicted to occur at the rear yard of Lot 246, the dwelling siding onto Street 'C' (represented by R17 on Figure 2).

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

Appendix C contains a sample sound level calculation.

TABLE 2: PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS

Location ⁽¹⁾	Source	Distance (m) ⁽²⁾	L _{eq} Day (dBA)	L _{eq} Night (dBA)
R1 Block 615 West facade	Bramalea Road	26	69	63
	Street 'C'	29	56	50
	Total	-	70	63
R1 Block 615 South facade	Bramalea Road	26	66	60
	Street 'C'	29	60	53
	Total	-	67	61
R2 Block 616 West facade	Bramalea Road	43	65	58
	Street 'C'	15	63	56
	Total	-	67	60
R2 Block 616 South facade	Bramalea Road	43	63	56
	Street 'C'	15	66	59
	Total	-	68	61
R3 Block 610 North facade	Bramalea Road	21	68	61
	Old School Road	89	56	50
	Total	-	68	61
R4 Lot 1 North facade	Bramalea Road	82	59	51
	Old School Road	93	55	49
	Total	-	60	53
R4 Lot 1 OLA	Bramalea Road	87	59	-
	Old School Road	90	55	-
	Total	-	60	-
R5 Lot 11 OLA	Old School Road	102	53	-
R6 Block 629 North facade	Old School Road	20	66	60
R6 Block 629 West facade	Old School Road	20	63	57
	Bramalea Road	394	43	36
	Total	-	63	57
R7 Block 635 East facade	Old School Road	22	62	56
	Street 'B'	26	57	50
	Total	-	63	57
R7 Block 635 North facade	Old School Road	23	65	59
	Street 'B'	26	54	47
	Total	-	66	59

.../cont'd

TABLE 2: PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS (continued)

Location ⁽¹⁾	Source	Distance (m) ⁽²⁾	L _{eq} Day (dBA)	L _{eq} Night (dBA)
R8 Block 636 East facade	Old School Road	37	59	53
	Street 'B'	15	62	56
	Total	-	64	57
R8 Block 636 North facade	Old School Road	37	61	55
	Street 'B'	15	59	52
	Total	-	63	57
R9 Lot 161 North facade	Old School Road	493	42	35
	Torbram Road	410	43	37
	Total	-	46	39
R10 Lot 31 OLA	Street 'C'	25	62	-
	Bramalea Road	214	51	-
	Total	-	62	-
R11 Lot 32 South facade	Street 'C'	14	66	60
	Bramalea Road	291	49	42
	Total	-	66	60
R11 Lot 32 OLA	Bramalea Road	293	48	-
	Street 'C'	24	60	-
	Total	-	60	-
R12 Lot 285 West facade	Bramalea Road	267	51	45
	Street 'C'	30	59	53
	Total	-	60	53
R12 Lot 285 OLA	Bramalea Road	269	50	-
	Street 'C'	33	56	-
	Total	-	57	-
R13 Lot 249 North facade	Street 'C'	16	66	59
	Street 'B'	15	59	53
	Total	-	67	60
R13 Lot 249 East facade	Street 'C'	16	63	56
	Street 'B'	15	62	56
	Total	-	66	59
R13 Lot 249 OLA	Street 'B'	18	59	-

.../cont'd

TABLE 2: PREDICTED UNMITIGATED SOUND LEVELS OUTDOORS (continued)

Location ⁽¹⁾	Source	Distance (m) ⁽²⁾	L _{eq} Day (dBA)	L _{eq} Night (dBA)
R14 Lot 250 OLA	Street 'B'	29	55	-
R15 Lot 131 North facade	Street 'B'	18	59	-
R16 Block 652 East facade	Street 'B'	21	60	54
R17 Lot 246 OLA	Street 'C'	15	63	-
R17 Lot 246 North facade	Street 'B'	19	58	51
	Street 'C'	10	66	60
	Total	-	67	60
R17 Lot 246 West facade	Street 'B'	19	61	54
	Street 'C'	10	63	57
	Total	-	65	59
R18 Lot 297 West facade	Bramalea Road	224	53	46
	Street 'C'	108	49	42
	Total	-	54	48
R18 Lot 297 OLA	Bramalea Road	220	52	-
	Street 'C'	113	50	-
	Total	-	54	-
R19 Lot 363 West facade	Bramalea Road	357	51	44
	Street 'A'	15	63	57
	Total	-	63	57
R19 Lot 363 OLA	Bramalea Road	354	49	-
	Street 'A'	20	63	-
	Total	-	63	-
R20 Block 662 North facade	Street 'A'	16	66	59
R21 Lot 362 South facade	Street 'A'	17	65	59
R21 Lot 362 OLA	Street 'A'	21	62	-

Notes:

(1) See Figure 2.

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

4.3 NOISE ABATEMENT REQUIREMENTS

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

- a) The sound isolation performance of architectural elements to achieve the indoor noise guideline sound levels for transportation sources; and
- b) design features to attenuate the sound levels in the OLA's.

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

4.3.1 Indoors

4.3.1.1 Architectural Requirements

The indoor noise guideline sound levels can be achieved by using appropriate construction for exterior walls, windows and doors. In determining the worst-case architectural sound isolation requirements, exterior wall and window areas were assumed to be 80% and 30%, respectively, of the associated floor area, on both facades of a corner room with both facades exposed directly or at an angle to the transportation noise source(s).

To meet the indoor noise criteria, :

- For townhouse blocks along Bramalea Road (Block 610 to 616), upgraded wall construction meeting STC 54 (e.g. brick / stone veneer) and windows meeting STC 28 are recommended;
- For dwellings along Old School Road (Blocks 629 to 635, northern unit of partial block 696), Street 'A' and 'C' (Blocks 626 to 628 and 661 to 665; and Lots 31 to 53, 118 to 131, 168, 169, 194 to 246, 249 to 285, 332, 362, 363 and partial blocks 696 to 700) exterior wall construction meeting STC 37 and windows meeting STC 28 are recommended.
- At all remaining dwellings in the development, exterior wall and window construction meeting the minimum non-acoustical requirements of the OBC will be sufficient to meet the indoor noise criteria.

Notes on the wall and window requirements:

- Exterior wall construction meeting the minimum non-acoustical requirements of the OBC is expected to achieve a rating of STC 37. At lots where an exterior wall rating of STC 37 is indicated, if upgraded exterior wall construction with a higher STC rating is used (e.g. brick veneer), the window STC requirements are expected to decrease.
- For windows, double-glazing configurations meeting the minimum non-acoustical requirements of the OBC would be expected to achieve an STC rating of 28. The window frames themselves must also be designed to ensure that the overall sound isolation performance for the entire window unit meets the sound isolation requirement. This should be confirmed by the window manufacturer through the submission of acoustical test data.

- At locations where STC 54 exterior walls are recommended, if exterior wall construction with a lower STC rating is used, the window STC requirements may increase.
- The final sound isolation requirements should be reviewed when architectural plans are developed. Wall and window constructions should also be reviewed at this point to ensure that they will meet the required sound isolation performance.

4.3.1.2 Ventilation Requirements

The assessment shows that:

- Air conditioning is mandatory for the first row of dwellings from Bramalea Road, Old School Road, Street 'A' and Street 'C' (all dwellings in Blocks 610 to 616, 626 to 635, and 661 to 665; and in Lots 31 to 53, 118 to 131, 168, 169, 194 to 246, 249 to 285, 332, 362, 363 and partial blocks 696 (northernmost unit), 698, 699, 700 (northernmost unit)).
- The provision for adding air conditioning is required at Blocks 561, 600, 617 to 623, 636, 649 to 656, units fronting Street 'B' in partial block 696, westernmost unit of partial block 697; and Lots 1 to 11, 91, 132 to 141, 193, 247, 248, 331, 361 and 364.
- See Figure 2 for exact block/dwelling locations.

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

4.3.2 **Outdoors**

The unmitigated daytime OLA sound levels are predicted to exceed 55 dBA at dwellings with rear yards adjacent to Street 'A', Street 'B' and Street 'C'.

To meet the 55 dBA design objective of the MECP, the following sound barriers are required:

- 1.8 m high at Lots 1 to 10 (south of the mixed use/retail block), 32, 131, 193, 194, 249, and Block 561 (adjacent to Street 'B' and Street 'C');
- 2 m high at Lots 31 and 285 (adjacent to Street 'C' with impact from Bramalea Road);
- 2.5m at Lot 168, 169, 246 (adjacent to Street C), 332, 362, and 363 (adjacent to Street 'A').

4.3.2.1 Notes about the sound barrier requirements

- The sound barrier at Lot 332 is shown with a return north along the rear property line. The plans indicate that the future development parcel to the west (adjacent to Lot 332) may also have similar detached dwellings. If the lot adjacent to Lot 332 also requires a sound barrier

along Street 'A', the sound barrier for Lot 332 may tie into this sound barrier instead of returning north.

- Similar to the above, if another dwelling that requires a sound barrier is built on the neighbouring development parcel adjacent to Lot 363, the sound barrier for Lot 363 may tie into this sound barrier instead of returning south.
- The sound barrier for Lots 1 to 10 has been added to mitigate noise due to Bramalea Road and Old School Road. The plans indicate mixed-use/retail development in the future on Block 676. The screening provided by the buildings may lower the requirements for this sound barrier.
- If the traffic impact study for the proposed development is updated with revised volumes on the internal and surrounding roadways, the analysis should be revised to confirm the sound barrier requirements. It is noted that if the traffic volumes are higher than those used in this report, the sound barrier requirements may increase; conversely, if the volumes are lower, the sound barrier requirements may decrease.
- Sound barriers must be of solid construction with no gaps, cracks or holes (except for small, localized openings required for water drainage) and must have a minimum surface weight of 20kg/m². A variety of materials are available, including concrete, masonry, glass, wood, specialty composite materials or a combination of the above.
- The sound barrier requirements were determined using flat topography. The sound barrier requirements will need be confirmed once a grading plan is available.

4.4 WARNING CLAUSES

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

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

TABLE 3: MINIMUM NOISE ABATEMENT MEASURES

Location ⁽¹⁾		Air Conditioning ⁽²⁾	Exterior Wall	Exterior Window	Sound Barrier ⁽³⁾	Warning Clauses ⁽⁴⁾
Block	Unit					
Block 610 to 616	All	Mandatory	STC 54 (Brick / Stone veneer)	Up to STC 28	Not required	A + B
Blocks 626 to 635, 661 and 662	All	Mandatory	Up to STC 37	Up to STC 28	Not required	A + B
Blocks 663 to 665	All	Mandatory	Up to STC 37	Up to STC 28	Not required	A + B + D
Lots 31 and 285	-	Mandatory	Up to STC 37	Up to STC 28	2m high	A + B
Lots 32, 131, 194 and 249	-	Mandatory	Up to STC 37	Up to STC 28	1.8m high	A + B
Lots 168, 169 and 246	-	Mandatory	Up to STC 37	Up to STC 28	2.5m high	A + B
Lot 332 and 363	-	Mandatory	Up to STC 37	Up to STC 28	2.5m high	A + B
Lot 362	-	Mandatory	Up to STC 37	Up to STC 28	2.5m high	A + B + D
Lots 33 to 53, 118 to 130, 195 to 245, 250 to 284 and partial blocks 698 and 699	-	Mandatory	Up to STC 37	Up to STC 28	Not required	A + B
Partial block 696 and 700	Northernmost unit	Mandatory	Up to STC 37	Up to STC 28	Not required	A + B
Partial block 696	Remaining units	Provision for adding	No special acoustical requirements	No special acoustical requirements	Not required	A + C
Partial block 697	Westernmost unit	Provision for adding	No special acoustical requirements	No special acoustical requirements	Not required	A + C
Block 561	1 st Dwelling from Street 'B'	Provision for adding	No special acoustical requirements	No special acoustical requirements	1.8m high	A + C
Block 600	1 st Dwellings from Street 'B'	Provision for adding	No special acoustical requirements	No special acoustical requirements	Not required	A + C
Blocks 617 to 623, 636 and 649 to 656	All	Provision for adding	No special acoustical requirements	No special acoustical requirements	Not required	A + C

.../cont'd

TABLE 3: MINIMUM NOISE ABATEMENT MEASURES (continued)

Location ⁽¹⁾		Air Conditioning ⁽²⁾	Exterior Wall	Exterior Window	Sound Barrier ⁽³⁾	Warning Clauses ⁽⁴⁾
Block	Unit					
Lot 193	-	Provision for adding	No special acoustical requirements	No special acoustical requirements	1.8m high	A + C
Lots 1 to 10	-	Provision for adding	No special acoustical requirements	No special acoustical requirements	1.8m high	A + C
Lots 11, 91, 132 to 141, 247, 248, 331 and 364	All	Provision for adding	No special acoustical requirements	No special acoustical requirements	Not required	A + C
Lot 361	All	Provision for adding	No special acoustical requirements	No special acoustical requirements	Not required	A + C + D
Lots 348 to 360	-	No special acoustical requirements				A + D
All other dwellings		No special acoustical requirements.				

Notes:

- (1) See Figure 2.
- (2) Where methods must be provided to allow windows to remain closed for noise control purposes, a commonly used technique is that of air conditioning.
- (3) Sound barriers must be of solid construction with no gaps, cracks, or holes, and must have a minimum surface density of 20 kg/m².
- (4) Standard example warning clauses to be registered on title and be included in Offers of Purchase and Sale for designated lots:
 - A. "Purchases/tenants are advised that despite the inclusion of noise control features in the development and within the building units, sound levels due to increasing road traffic may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."
 - B. "This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."
 - C. "This dwelling unit has been designed with the provision for adding central air conditioning at the occupant's discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment, Conservation and Parks."
 - D. "Purchasers / occupants are advised that due to the proximity of the existing elementary school, noise from this facility may, at times, be audible".
- (5) All exterior doors shall be fully weather-stripped.

5.0 FUTURE DEVELOPMENT BLOCKS

Building plans for the mixed use / retail (Block 676) and the public elementary school block (Block 677) have not yet been developed. Specific mitigation measures have therefore not been established within this report.

Any noise sensitive uses in these blocks must be designed to meet the noise guideline limits outlined in NPC-300. For transportation noise sources, potential mitigation measures could include upgraded exterior walls and/or windows to provide a suitable indoor acoustical environment.

Further, any stationary sources associated with these blocks must be designed to comply with the stationary source limits outlined in NPC-300 at the neighbouring noise sensitive receptors.

Detailed assessments of these blocks will be completed as part of the future Site Plan Approval submissions for these blocks, once plans are available.

6.0 CONCLUSIONS

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

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

7.0 REFERENCES

1. PC STAMSON 5.04, "Computer Program for Road Traffic Noise Assessment", Ontario Ministry of the Environment.
2. Building Practice Note No. 56: "Controlling Sound Transmission into Buildings", by J. D. Quirt, Division of Building Research, National Council of Canada, September 1985.
3. "Environmental Noise Assessment in Land-Use Planning 1987", Ontario Ministry of the Environment, February 1987, ISBN 0-7729-2804-5.
4. MECP Publication NPC-300, "Stationary and Transportation Sources – Approval and Planning" Ontario Ministry of the Environment, August 2013.
5. "General Guidelines for the Preparation of Acoustical Reports in the Region of Peel", Region of Peel. November 2012.
6. "Development Standards Manual, Version 5.0", Town of Caledon, 2019.
7. "Mayfield-Tullamore Community Transportation Study", BA Group, August 2024.

SN\mv

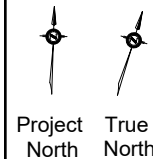
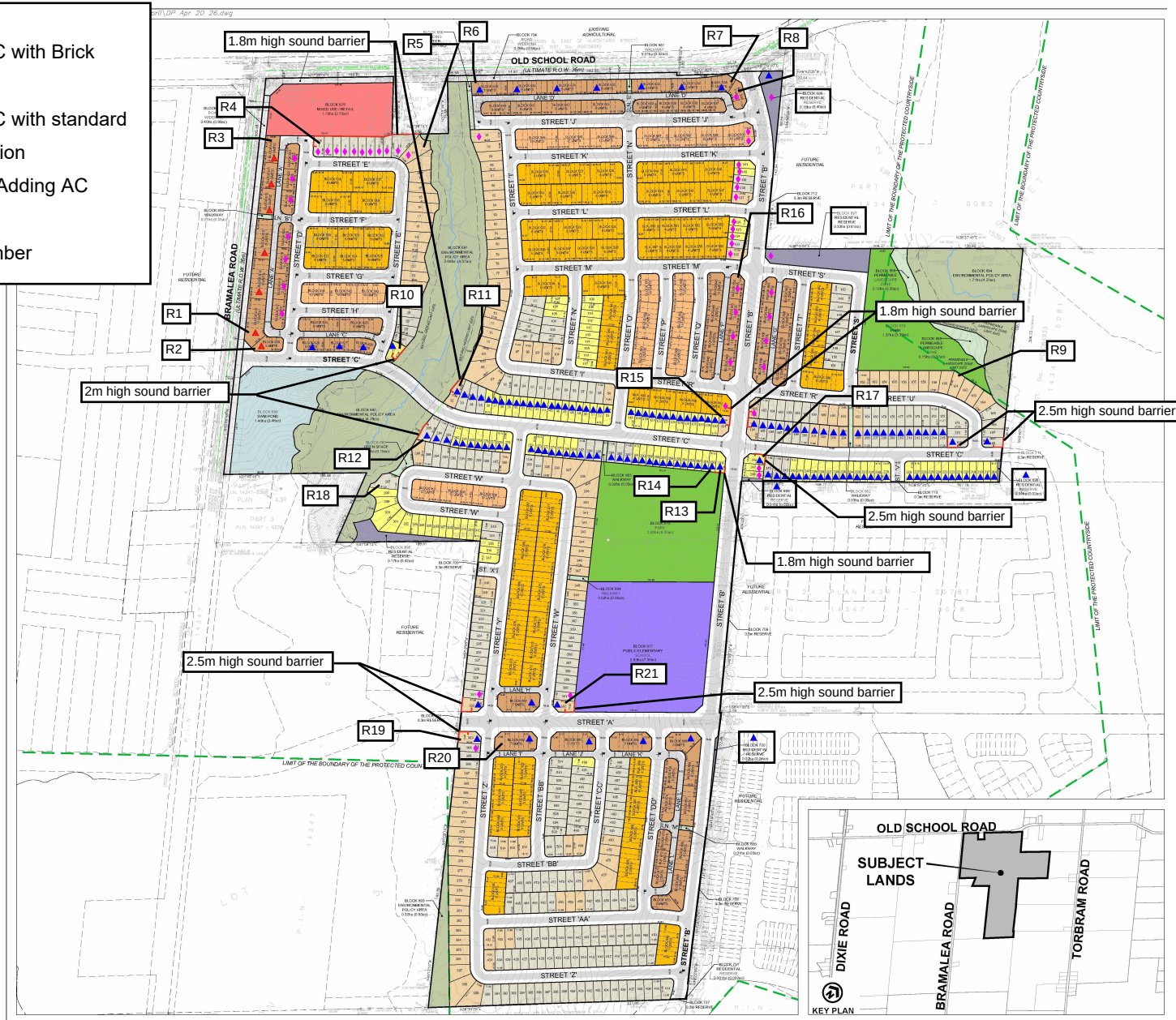
Part of Lots 21&22, Concession 5, Caledon - Noise v1_0 Fnl



	Title Key Plan	Date 2026-05-28	Figure 1
	Project Name Parts of Lots 21 & 22, Concession 5, Caledon	Project No. 125-0041	

Legend

- ▲ Mandatory AC with Brick veneer
- ▲ Mandatory AC with standard wall construction
- ◆ Provision for Adding AC
- Sound barrier
- R## Receptor number



Base drawing prepared by

APPENDIX A

ROAD TRAFFIC DATA

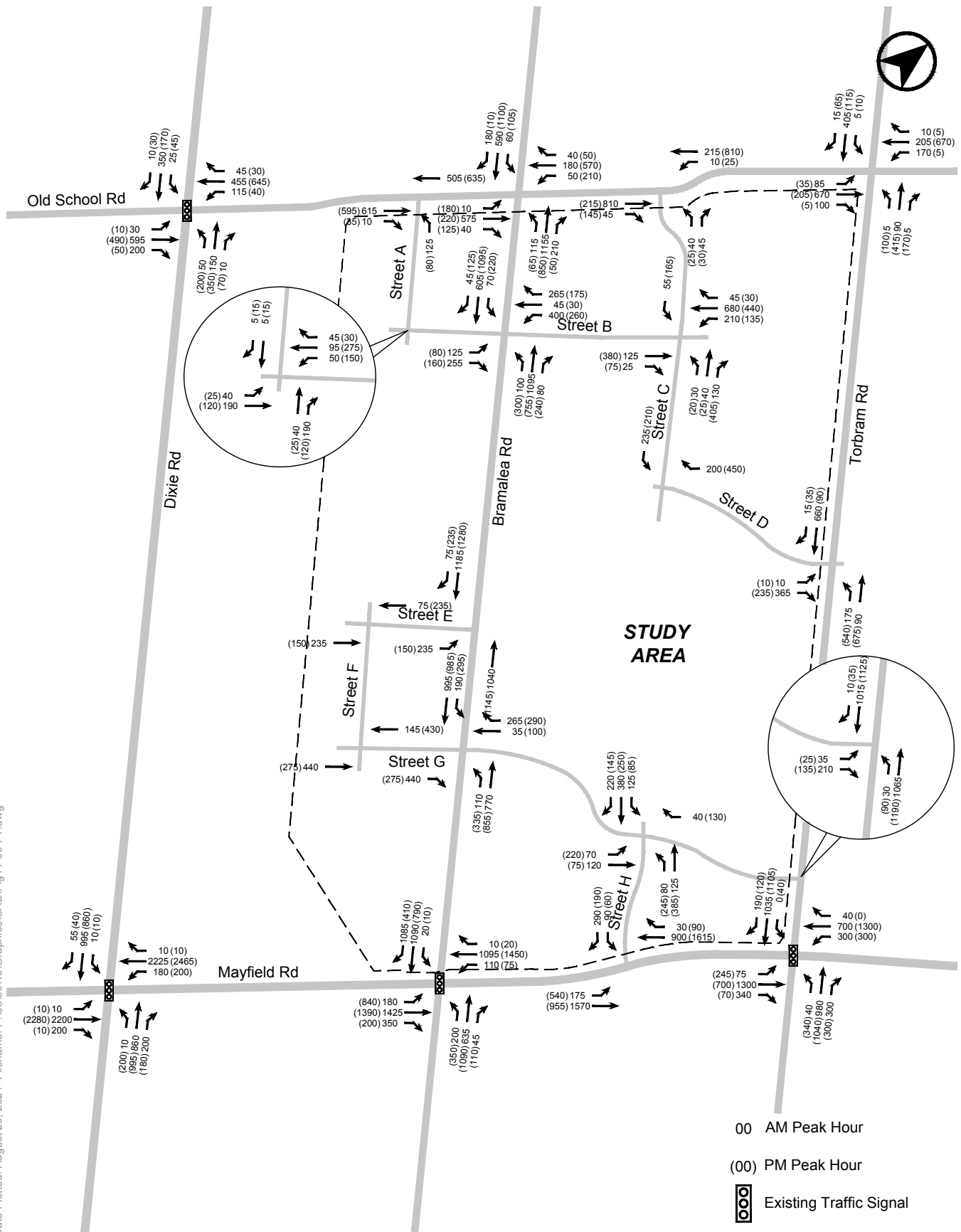


FIGURE 11 2051 FUTURE TOTAL TRAFFIC VOLUMES

APPENDIX B

ENVIRONMENTAL NOISE GUIDELINES

APPENDIX B

ENVIRONMENTAL NOISE GUIDELINES

MINISTRY OF THE ENVIRONMENT, CONSERVATION AND PARKS (MECP)

Reference: MOE Publication NPC-300, October 2013: *“Environmental Noise Guideline, Stationary and Transportation Source – Approval and Planning”*.

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

..../cont'd

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

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

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

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

APPENDIX C

SAMPLE CALCULATIONS

MINISTRY OF ENVIRONMENT, CONSERVATION AND PARKS/ NOISE ASSESSMENT

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

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

Data for Segment # 1: Bramalea Rd (day/night)

Road data, segment # 2: Street C (day/night)

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

www.valcoustics.com | 30 Wertheim Court, Unit 25, Richmond Hill, Ontario, L4B 1B9 Canada

Data for Segment # 2: Street C (day/night)

```

-----
Angle1   Angle2           : -41.00 deg   47.00 deg
Wood depth           :      0      (No woods.)
No of house rows     :      0 / 0
Surface              :      1      (Absorptive ground surface)
Receiver source distance : 29.00 / 29.00 m
Receiver height       :      7.50 / 7.50 m
Topography           :      1      (Flat/gentle slope; no barrier)
Reference angle       :      0.00
  
```

Results segment # 1: Bramalea Rd (day)

Source height = 1.19 m

ROAD (0.00 + 66.34 + 0.00) = 66.34 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.49	73.96	0.00	-3.46	-4.17	0.00	0.00	0.00	66.34

Segment Leq : 66.34 Dba

Results segment # 2: Street C (day)

Source height = 1.19 m

ROAD (0.00 + 59.84 + 0.00) = 59.84 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-41	47	0.49	67.43	0.00	-4.26	-3.33	0.00	0.00	0.00	59.84

Segment Leq : 59.84 dBA

Total Leq All Segments: 67.22 dBA

Results segment # 1: Bramalea Rd (night)

Source height = 1.19 m

ROAD (0.00 + 59.80 + 0.00) = 59.80 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
0	90	0.49	67.42	0.00	-3.46	-4.17	0.00	0.00	0.00	59.80

Segment Leq : 59.80 dBA

Results segment # 2: Street C (night)

Source height = 1.19 m

ROAD (0.00 + 53.30 + 0.00) = 53.30 dBA

Angle1	Angle2	Alpha	RefLeq	P.Adj	D.Adj	F.Adj	W.Adj	H.Adj	B.Adj	SubLeq
-41	47	0.49	60.90	0.00	-4.26	-3.33	0.00	0.00	0.00	53.30

Segment Leq : 53.30 dBA

Total Leq All Segments: 60.68 dBA

TOTAL Leq FROM ALL SOURCES (DAY): 67.22
(NIGHT): 60.68