

Acoustic Assessment Report – 7260 No. 5 Side Road, Town of Milton Township of Milton

Prepared for:

Truck Rental Agency
On behalf of
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1.0 INTRODUCTION

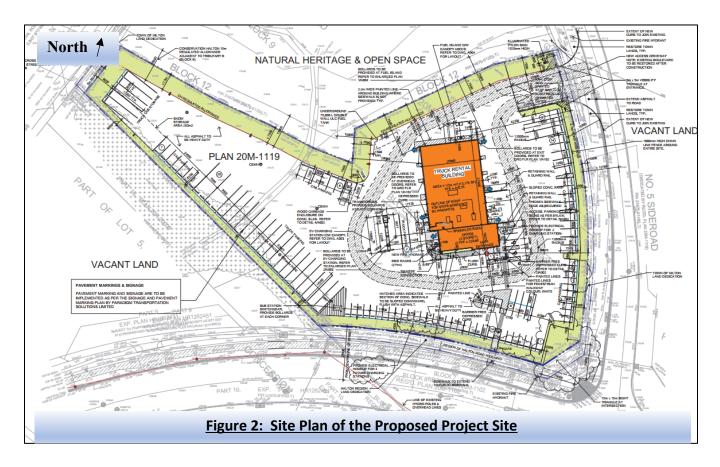
Vintec Acoustics Inc. was retained by the Truck Rental Agency care of W.E. Oughtred & Associates Inc., to prepare an Environmental Noise and Vibration report (Acoustic Assessment) that addresses the potential noise impact of the proposed truck leasing office and service building on the surrounding areas. Specifically, this study deals with proposed operations from the subject Truck Rental Agency office and service building located at 7260 No. 5 Side Road, Town of Milton and considers the noise impact of the site upon the existing noise sensitive receptors. The property owner is proposing to develop the property a truck rental agency with a total gross floor area (GFA) of approximately 20,074 square feet. There is presently a building that exists on site, and it is noteworthy that as per information received and reviewed, there are no proposed changes for the building nor any proposed modifications or additions to any existing building equipment. A truck sales and leasing office is being added to the project.

Access to the subject site is proposed via Side Road 5 connecting to (JSP) Snow Parkway Regional Road. A total truck parking supply of 26 parking spaces is also proposed for the subject site. An aerial view plan of the existing and proposed site is shown in Figure 1 and the proposed building arrangement is shown in Figure 2. Noise emission data relating to any existing noise sources on site was based on information obtained from the Vintec Acoustics' sound source database. This information along with data from site specific studies and drawings has been used to predict noise levels at the nearest receptors. This information is thus relevant to establish noise assessment guidelines for realizing acoustic compliance at the proposed site of the rental agency located at 7260 No. 5 Side Road, Town of Milton.



Figure 1: Aerial Plan Imagery showing the Location of the subject site and surrounding area

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This report examines the subject facility and presents noise guidelines for realizing acoustic compliance of the potential impact from both the truck operations on site and proposed sales and leasing office within the subject study area. The noise emission profiles that have been used in this analysis are a conservative and appropriate estimate of project operations. This study therefore serves as a reference to both technically support approvals from the municipality and if required, an application for environmental approvals such as an Environmental Activity Sector Registry (EASR) to be acquired from the Ministry of Environment, Conservation and Parks (MECP).

This acoustic assessment report examines the potential noise impact from the project site which includes on site truck movements, parking and maintenance and truck service activity within the building. This acoustic assessment also includes an assessment from current building noise sources, such as air handling, fan exhausts, vehicle maintenance tools and equipment alongside noise from site vehicle movement activity(ies). Potential impulse noise from trailer coupling and decoupling has also been considered and included in this assessment to reflect a reasonably conservative and predictable worst-case scenario for assessing impact of truck and trailer decoupling and coupling impact sounds that may be detected at the nearest noise sensitive receptors. In this regard, 3 to 4 decoupling events in a peak is likely to represent a conservative assessment scenario. Reference to experience with similar sites that

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comprise of truck service, maintenance and on-site marshalling/movements including entrance/egress to local roads and a review of potential off site truck traffic related noise impact has also been made. The study has been conducted in accordance with the applicable Ministry of Environment, Conservation and Parks (MECP) Noise Guidelines as defined in publication NPC-300 [1], which serves as the acoustic basis for municipal approvals and environmental permitting throughout Ontario.

1.1 DISCUSSION OF TERMS, DESCRIPTORS USED IN THIS REPORT

To assist the reader in deciphering this study, the following provides a brief discussion of the acoustic terms used. Sound pressure levels (SPL) are measured in decibels (dB). Sound data and analysis are often given in terms of frequency distribution. The levels are grouped into octave bands, typically with centre frequencies at 31.5, 63, 125, 250, 500, 1000, 2000, 4000 and 8000 Hertz (Hz.). Added frequency resolution can be realized by examining 1/3 octave band sound levels or discrete narrowband sound data. Reference to sound power (PWL) expresses the overall sound intensity radiated by a source of given surface area.

It is also common practice to sum sound levels over the entire audible spectrum to give an overall sound level, often expressed as either an unweighted dBZ or some form of weighted level. To arrive at an overall weighted level, each octave band measured has a weighting or filter applied to it. The most common weighted level is typically expressed as 'dBA', which corresponds approximately to the hearing response of humans. The resulting "A-weighted" (dBA) sound level is often used as a criterion to indicate a maximum allowable sound level. In general, sound in the low frequency range (below ~250 Hz) is filtered and adjusted as hearing is less sensitive to low frequency sound in comparison to mid and higher frequency audible noise (above ~500 Hz). It is noteworthy that a change (reduction) in mid to high frequency sound level of 10 dB in the 500 Hz to 4kHz frequency range will be subjectively perceived as being half as loud.

In general terms, a change in environmental sound levels of up to 3 dB(A) is generally barely perceptible by humans and is not considered to be a significant change. Changes of 3 to 5 dB(A) are perceptible and do not typically represent any potential for noise impact. Changes of 6 to 10 dB(A) is a clearly noticeable change and may result in a moderate noise impact. A change of more than 10 dB(A) is a very significant change and will be perceived to be more than twice as loud and potential for noise impact is high. It is noteworthy that sensitivity to noise may vary from individual to individual.

The assessment protocol followed in this report is based on the MECP noise guidelines; namely, publication NPC-300 which expresses applicable sound level limits as a one-hour energy average sound level or Leq (dBA-1 hour). Each measurement that is conducted typically captures the A-weighted equivalent sound level (Leq) and the ninetieth percentile A-weighted equivalent sound level (L90) as well as other statistical indices. The L90 is a key descriptor that provides insight of the underlying background sound character which is generally attributable to steady continuous sound in the environment.

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It is noteworthy that human hearing ability, although less sensitive in general to low frequency sound, is aware of change or increase in low frequency sound level. The dBC descriptor may be used to address low frequency noise; whereby, the difference in the dBA and dBC level can be reviewed.

2.0 ACOUSTIC REVIEW SUMMARY

The facility hours are typically during AM and PM peak traffic on weekdays; hence from 7:00am to 8:00pm with a small number of employees working inside the facility. The hours are during the daytime and evening, but as a conservatism, it has been assumed that the facility may be accessed on a 24/7 basis, and this is reflected in the acoustic assessment. Truck access (i.e., entrance and egress) is anticipated daily with up to 50 heavy trucks anticipated during AM and 79 heavy trucks during PM peak rush hour periods. It is assumed that about 20% of the trucks may return during quieter mid-day and evening periods of the day and evening (i.e., 11am – 12pm and 8pm – 9pm, respectively); and this is reflected in the analysis. Existing building noise sources presently comprise of grade level and elevated air handling equipment, etc. and these have been included in the assessment, as per source emission details from the Vintec Acoustics database as well as discussions with the client. This environmental noise assessment has been prepared in accordance with the MECP requirements defined by NPC-300 [1] and therefore includes the following key study points:

- Identification of the nearest points of reception (POR) and the applicable sound limits at the PORs
- Prediction of the predictable worst-case noise impact at each POR and
- Outline of noise control measures that are required to realize acoustic compliance at the PORs.

Satisfaction of the MECP noise guidelines at the most noise sensitive PORs typically ensures compliant noise levels at all other receptors as well. It is noteworthy that NPC 300 forms the basis of most municipal noise requirements in the Province of Ontario.

3.0 ACOUSTIC CRITERIA

The ambient sound environment at the existing site is dominated by major local roads; namely, James Snow Parkway Regional Road that is in proximity to the nearest sensitive points of reception which is typically nearby residences. The Dublin Line Road and Side Road 5 contribute lesser to the noise environment at receptor locations due to infrequent vehicle movements along these roads.

The nearest sensitive residential areas are shown in the aerial view given in Figure 3. These points of reception (POR) are typically residential homes; and due to proximity to James Snow Parkway Regional Road, they can be characterized to be Class 2 as defined in NPC 300. Table A provides the setback distances to James Snow Parkway Regional Road, Side Road 5 (site access) and the subject site.

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Figure 3: Identification of Nearest Receptors to proposed site

The applicable sound level limits for the on-site activity are a 1-hour Leq (dBA) of 50 daytime/evening (0700-2300) and 45 dBA nighttime (2300-0700) at the nearest receptor(s). It is understood that based on the subject site hours, there shall be no nighttime operations. Based on the site's proximity to Highway 401 and James Snow Parkway, higher ambient sound levels that the minimum MECP requirements are likely applicable; however, the most restrictive limits have been applied; and thus represents a further conservatism. These sound limits apply to cumulative noise levels from the subject facility, typically at residential points of reception as required for fulfilling the predictable worst-case hour requirement defined in NPC-300. As noted, a local zoning map obtained from the official Town of Milton Official Plan showing neighbouring land uses is provided in Appendix A. A review of the zoning map has shown there to be no future residential development within about 300m proximity to the study area, and thus the closest existing residential receptors around the site have been considered, as required for a robust acoustic assessment.

Table A: Receptor set back distances to James Snow Parkway and Side Road 5 (site access) and at Project Site.

| POR ID | Location | Notes | Approx. Distance to Site (m) | Approx. Distance to James Snow Parkway (m) | Approx. Distance to Side Road 5 (site access) (m) |
|-----------|---------------|-------|------------------------------|--|---|
| R1 | Side Road 5 | | 50 | 150 | 250 |
| R1 OLA | (Site access) | | 60 | 160 | 260 |

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| POR ID | Location | Notes | Approx. Distance to Site (m) | Approx. Distance to James Snow Parkway (m) | Approx. Distance to Side Road 5 (site access) (m) |
|---------------|-------------|--------------------------|------------------------------|--|---|
| R2 | | | 170 | 225 | 215 |
| R2 OLA | | | 180 | 235 | 225 |
| R3 | | | 160 | 270 | 230 |
| R4 | | Existing | 210 | 160 | 370 |
| R4 and R5 OLA | | residential dwellings | 195 | 170 | 395 |
| R5 | | | 200 | 165 | 400 |
| R6 R7 | Dublic Lies | | 330 | 260 | 500 |
| | Dublin Line | | 400 | 380 | 500 |

Furthermore, consideration is also given to potential impulse noise, where the applicable sound level limits that are used for impulsive sound from a stationary source are defined by the MECP in Tables C-7 and C-8 of NPC 300. Specifically, the exclusion limit values apply for outdoor points of reception during daytime/evening hours of 7am to 11pm and similarly, nighttime sound level limits apply during 11pm to 7 am for plane of window of a noise sensitive space. The impulse sound level limits are a given as a function of frequency of occurrence and the applicable limits for 1 event to 9 or more events for a given area classification, i.e., Class 2, are as follows:

Class 2

- 1 event at 80 dBAI for daytime and 75 dBAI for nighttime
- 2 events at 75 dBAI for daytime and 70 dBAI for nighttime
- 3 events at 70 dBAI for daytime and 65 dBAI for nighttime
- 4 events at 65 dBAI for daytime and 60 dBAI for nighttime
- 5 to 6 events at 60 dBAI for daytime and 55 dBAI for nighttime
- 7 to 8 events at 55 dBAI for daytime and 50 dBAI for nighttime
- 9 or more events at 50 dBAI for daytime and 45 dBAI for nighttime

The anticipated impulse noise due to truck trailer coupling/decoupling and 3 to 4 events in a peak worst case hour may be potentially expected during peak daytime/evening hours (0700-2300), subject to implementation of internal best practices policies to minimize noise.

We have reviewed concept drawings for the site plan as part of our assessment and an arrangement plan for the facility is given in Figure 2. The concept renderings and related facility drawings are provided in the Appendix D of this report. Our analysis focuses on establishing noise impact for the site-specific case with the inclusion of the noise sources associated with site. It is noteworthy that the NPC 300

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Guidelines also state that the specific sound sources are not considered as stationary noise sources. This list of exempted noise sources that are not considered to be stationary noise sources includes the following:

- •occasional movement of waste management vehicles on the property.
- •automobiles driven by employees and clients that are entering, parking, and leaving the property.

The occasional movement of these vehicles would fall under this category and thus these sources would not normally be considered as stationary noise sources and are thus typically exempt from assessment.

The information summarized in Table B has been used as a basis for creating an acoustic model based on ISO 9613-2 outdoor sound propagation standard that is accepted as the protocol basis for noise impact assessment worldwide. In this regard, it is noteworthy that noise emissions from a sound source diminish geometrically over the distance between source and receptor at a rate of about 6 dB per doubling of distance. Overall sound levels are further reduced with the presence of intervening structures, buildings and barriers that behave in accordance with sight and light theory. Such barriers will add to sound propagation losses to further reduce noise levels at a given receptor.

Table B describes the sources of noise emissions and serve as a guideline regarding the level of detail that is required to confirm compliance with NPC 300 for the site-specific case.

Table B: Noise Sources at Project Site.

| Source | Sound emission reference | Relevant Notes |
|----------------------------|---|--|
| Exhaust | | Sound power level 86 dBA; |
| Vent | | Sound power level 87 dBA; |
| Facade Louvre / Compressor | | Sound power level 96 dBA; |
| MUA | | Sound power level 87 dBA; |
| Office RTU | Vintec Sound Source database | Sound power level 86 dBA; |
| Transformer / Inverter | | Sound power level 83 dBA; |
| Condensing Unit | | Sound power level 88 dBA; |
| Loading Bay Doors | | Sound power level 84 dBA; |
| Site vehicle movements | | Moving noise source (AM 50/hour PM 79/hour) 88 dBA PWL |
| Cars | Cars entering, parking, egress, occasional; | NPC 300 exemption as a stationary source |
| Waste Handling/Pick up | NPC 300 exemption a | s a stationary source |
| Impulse Noise | Coupling and decoupling | Estimated sound Power of 104 dBAI, conservatively included |

An acoustic impact summary table which lists the predicted sound levels for the subject facility is populated as part of this AAR. An acoustic model to address sound propagation outdoors has been created for the project site operations; and as per the following acoustic modelling details:

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As noted, the acoustic model prepared for this study area is based on the ISO standard 9613-2, `Acoustics-Attenuation of Sound during Propagation Outdoors' as employed by the iNoise acoustic model algorithm. The ISO calculation method, considered conservative, looks at sound propagation outdoors and includes losses due to distance (geometrical spreading), air absorption, ground attenuation, and acoustic shielding. Calculation parameters are in accordance with the MECP protocols and as per the ISO standard as follows:

- Area made up of mixed ground (G=0.5) with ground absorption hard ground (G=0).
- Temperature of 10°C and relative humidity of 70%.
- All sources were modelled as point sources with sound power levels based on 1/1 octave band centre
 frequency analysis. Roof is modeled as an emitting roof. Truck movements are modelled as moving
 points sources.
- Buildings and structures include a reflection factor of 0.8 for all octave band frequency ranges.
- Reflection orders as per MECP requirements for ISO 9613-2 model.

This information demonstrates that the subject facility may operate within acceptable daytime and nighttime sound limits as defined by NPC 300. This assessment also illustrates that with the provision of modest noise control interventions, any noise impact at the nearest PORs have been determined to be within acceptable sound limits as defined by MECP. The noise sources used in this assessment shall be verified to ensure that the salient sound levels maintain compliance with the final equipment chosen.

It should be noted that the anticipated noise emissions from the equipment reflects a level of conservatism within the noise model predictions in assessing the predictable worst case; and lower noise emissions are likely most of the time. The conservatism is further enhanced when consideration is given to the existing ambient baseline noise conditions due to Highway 401 and JSP proximity.

4.0 ASSESSMENT RESULTS

Stationary Noise Impact - onsite operations

The acoustic assessment results for the anticipated predictable worst case of all equipment are discussed and summarized in noise source Tables 1 through 14 in Appendix A. An acoustic impact summary for all receptors is presented in Tables 2 through 12 for the anticipated equipment operation scenario, especially during truck movements and coupling and decoupling. Based on the impact assessment results presented in Tables 13 to 14, noise levels from the subject facility have been predicted to be compliant at all receptor points. Provision shall be made to substantiate the in-situ noise emissions for the site equipment mix and type. Evaluation guidelines have been provided; namely, that any future facility modifications, modified or new equipment and/or capacity changes for the site shall be evaluated to confirm that sound levels are within allowable sound limits as defined in NPC 300 and as required for compliance.

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Truck Traffic Noise Impact - offsite truck route

Additionally, off site road traffic noise has also been considered as part of this assessment by reviewing the existing sound levels in the study area due to vehicular traffic and assessing the change because of the project. The Annual Average Daily Traffic (AADT) was not available at the time of this assessment and therefore the AADT for the baseline scenario has been derived from site specific studies.

Vintec Acoustics undertook an online data search for other committed developments in the area where traffic assessments were completed. Following the online review one supporting document was found which assessed the traffic noise impact of another proposed commercial development within the area of the site. The assessment was completed on 2024[6]. This document has also been used to support this assessment.

Please note that the majority site truck movements will leave and enter the site via Side Road 5 site access to the south adjoining James Snow Parkway Regional Road. Therefore, the only significance of change attributable to site trucks movements would be on James Snow Parkway Regional Road. Some conservatism has been an applied to the compounded growth factor for deriving base vehicle flows.

The volumes were grown to 2024 existing conditions based on growth rates provided by reviewing previous studies within the area. A growth rate of 3% for James Snow Parkway Regional Road was used. This compounded growth rate was also applied in order to derive the 2026 baseline traffic volumes without the truck rental agency.

Furthermore, a traffic impact assessment [5] has also been conducted for the site by *Paradigm* (doc ref: '2021 Paradigm Traffic Study.pdf'). This document is used to support the assessment which provides the peak vehicle flows of the site for the morning and afternoon periods. In the absence of an AADT, 24h for current vehicle movements on James Snow Parkway have been derived using the peak 1-hour AM traffic counts observed within the traffic impact assessments [5][6]. The area is generally industrial where a 10% ratio AADT has been applied to the peak AM traffic counts to estimate the AADT, 24hr which was found to around 14,500. Therefore, the design hourly volume (DHV)[6] for quieter periods of the day can be derived.

Additionally, the traffic information found in all the studies has been interpolated to provide the appropriate heavy trucks, heavy good vehicles (HGV) percentages for the identified periods. Road traffic speed limits of either 50 km/hr or 60 km/hr are used based on traffic flows for the site-specific receptor area. The Paradigm traffic assessment indicates that there would be 50 site truck movements within one hour during AM and 79 during PM peak periods, and therefore the assessment looks at the change in noise level compared to the 1-hour baseline noise traffic predictions of James Snow Parkway / Regional and Side Road 5 site access.

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The difference in noise level can be found to establish the level of noise impact attributable to additional offsite truck traffic. The traffic assessment focuses on receptors R1 to R7, as shown in Figure 2. These receptors are identified to represent worst case given the distance to the site access road and location.

Using the projected road traffic data acquired as per the noted methodology and included in Tables 1C and 2C of Appendix C, sound levels were calculated using STAMSON v. 5.04, as per MECP policy. The specific traffic count dates and details of road traffic data provided by the region and traffic impact assessment as well as STAMSON calculation samples are provided in Appendix C. Offsite truck traffic impact is based on an additional truck on James Snow Parkway / Regional during AM and PM rush hour and about 20% of this figure during potential quieter period of day and evening (i.e. 11am-12pm and 8pm-9pm).

Table C below shows the assessment of change in road traffic noise as result of additional offsite truck traffic. Any change in sound levels due to truck traffic will be less than 3 dB(A) most of the time. A 0-3 dB(A) change in environmental noise terms is typically negligible and can be considered as insignificant. It can be seen from the below table that there has been no significant change in road traffic noise level with the incorporation of the additional site truck movements, and thus the potential noise impact is concluded to be insignificant.

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Table C: Road Traffic assessment of base 1 hours flows vs. Site vehicle movements

| Recept or | | | | 2024 2026 | | | | | | | | | | | | | | | | | |
|--------------|-------------------------------------|--|--|------------------|--|---|--|---------------------------|--|--|--|---------------------------|-----------------|------|------|------|-----|------|------|------|-----|
| - | Distance to James Snow Pkwy N | Distance to Side Road 5 (site access) | Period and Site trucks per hour | Start Time | Predict ed 1hr dBA James Snow Pkwy N 2024 | Predicte d 1hr dBA Truck Moveme nts Side Road 5 (site access) | Combin ed Predict ed 1hr dBA | 2024 Differe nce dB | Predict ed 1hr dBA James Snow Pkwy N 2026 | Predicte d 1hr dBA Truck Moveme nts Side Road 5 (site access) | Combin ed Predict ed 1hr dBA | 2026 Differe nce dB | | | | | | | | | |
| | | | Morning (50/hr) | 07:00- 08:00 | 54.3 | 45.7 | 54.9 | 0.6 | 54.5 | 45.7 | 55.1 | 0.5 | | | | | | | | | |
| R1 | 151m | 249m | midday (10/hr) | 11:00- 12:00 | 54.5 | 38.7 | 54.6 | 0.1 | 54.7 | 38.7 | 54.8 | 0.1 | | | | | | | | | |
| | (60 km/h) | (50 km/h) | Afternoon (79/hr) | 16:00 - 17:00 | 52.7 | 47.7 | 53.9 | 1.2 | 53.0 | 47.7 | 54.1 | 1.1 | | | | | | | | | |
| | | | Evening (16hr) | 20:00- 21:00 | 54.5 | 40.8 | 54.6 | 0.2 | 54.7 | 40.8 | 54.9 | 0.2 | | | | | | | | | |
| | | | Morning (50/hr) | 07:00- 08:00 | 51.5 | 45.33 | 52.4 | 0.9 | 51.7 | 45.3 | 52.6 | 0.9 | | | | | | | | | |
| R2 | 225m | 215m | | | | | | | | | | midday (10/hr) | 11:00- 12:00 | 51.6 | 38.3 | 51.8 | 0.2 | 51.9 | 38.3 | 52.1 | 0.2 |
| | (60 km/h) | (50 km/h) | Afternoon (79/hr) | 16:00 - 17:00 | 49.8 | 47.31 | 51.8 | 1.9 | 50.1 | 47.3 | 51.9 | 1.8 | | | | | | | | | |
| | | | Evening (16hr) | 20:00- 21:00 | 51.6 | 40.4 | 51.9 | 0.3 | 51.9 | 40.4 | 52.2 | 0.3 | | | | | | | | | |
| | | | Morning (50/hr) | 07:00- 08:00 | 50.1 | 44.81 | 51.3 | 1.1 | 50.4 | 44.8 | 51.4 | 1.1 | | | | | | | | | |
| R3 | 270m (60 km/h) | 270m (60 km/h) 230m (50 km/h) | midday (10/hr) | 11:00- 12:00 | 50.3 | 37.8 | 50.6 | 0.2 | 50.6 | 37.8 | 50.8 | 0.2 | | | | | | | | | |
| | (,, | | Afternoon (79/hr) | 16:00 - 17:00 | 48.5 | 46.8 | 50.7 | 2.2 | 48.8 | 46.8 | 50.9 | 2.1 | | | | | | | | | |

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| | | | | | | 20 | 24 | | | 20 | 26 | | | | |
|--------------|-------------------------------------|--|--|------------------|--|---|--|---------------------------|--|---|--|---------------------------|------|------|-----|
| Recept or | Distance to James Snow Pkwy N | Distance to Side Road 5 (site access) | Period and Site trucks per hour | Start Time | Predict ed 1hr dBA James Snow Pkwy N 2024 | Predicte d 1hr dBA Truck Moveme nts Side Road 5 (site access) | Combin ed Predict ed 1hr dBA | 2024 Differe nce dB | Predict ed 1hr dBA James Snow Pkwy N 2026 | Predicte d 1hr dBA Truck Moveme nts Side Road 5 (site access) | Combin ed Predict ed 1hr dBA | 2026 Differe nce dB | | | |
| | | | Evening (16hr) | 20:00- 21:00 | 50.3 | 39.9 | 50.7 | 0.4 | 50.6 | 39.9 | 50.9 | 0.4 | | | |
| | | | Morning (50/hr) | 07:00- 08:00 | 53.8 | 42.91 | 54.2 | 0.3 | 54.1 | 42.9 | 54.4 | 0.3 | | | |
| R4 | 161m | 370m (50 km/h) | midday (10/hr) | 11:00- 12:00 | 54.0 | 35.9 | 54.1 | 0.1 | 54.3 | 35.9 | 54.3 | 0.1 | | | |
| | (60 km/h) | (30 KIII/II) | Afternoon (79/hr) | 16:00 - 17:00 | 52.2 | 44.9 | 53.0 | 0.7 | 52.5 | 44.9 | 53.2 | 0.7 | | | |
| | | | Evening (16hr) | 20:00- 21:00 | 54.0 | 38.0 | 54.1 | 0.1 | 54.3 | 38.0 | 54.4 | 0.1 | | | |
| | | | Morning (50/hr) | 07:00- 08:00 | 53.3 | 42.36 | 53.6 | 0.3 | 53.5 | 42.4 | 53.8 | 0.3 | | | |
| R5 | 174m | 400m | | | | midday (10/hr) | 11:00- 12:00 | 53.5 | 35.4 | 53.5 | 0.1 | 53.7 | 35.4 | 53.8 | 0.1 |
| | (60 km/h) | (50 km/h) | Afternoon (79/hr) | 16:00 - 17:00 | 51.7 | 44.34 | 52.4 | 0.7 | 51.9 | 44.3 | 52.6 | 0.7 | | | |
| | | | Evening (16hr) | 20:00- 21:00 | 53.5 | 37.4 | 53.6 | 0.1 | 53.7 | 37.4 | 53.8 | 0.1 | | | |
| | | 266m (60 km/h) 512m (50 km/h) | Morning 07:00- (50/hr) 08:00 | | 50.3 | 40.78 | 50.7 | 0.5 | 50.5 | 40.8 | 50.9 | 0.4 | | | |
| R6 | 266m (60 km/h) | | midday (10/hr) | 11:00- 12:00 | 50.4 | 33.8 | 50.5 | 0.1 | 50.7 | 33.8 | 50.8 | 0.1 | | | |
| | | | Afternoon (79/hr) | 16:00 - 17:00 | 48.6 | 42.76 | 49.6 | 1.0 | 48.9 | 42.8 | 49.8 | 0.9 | | | |

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| | | | | | | 20 | 24 | | | 20 | 26 | |
|--------------|-------------------------------------|--|--|------------------|--|---|--|---------------------------|--|---|--|---------------------------|
| Recept or | Distance to James Snow Pkwy N | Distance to Side Road 5 (site access) | Period and Site trucks per hour | Start Time | Predict ed 1hr dBA James Snow Pkwy N 2024 | Predicte d 1hr dBA Truck Moveme nts Side Road 5 (site access) | Combin ed Predict ed 1hr dBA | 2024 Differe nce dB | Predict ed 1hr dBA James Snow Pkwy N 2026 | Predicte d 1hr dBA Truck Moveme nts Side Road 5 (site access) | Combin ed Predict ed 1hr dBA | 2026 Differe nce dB |
| | | | Evening (16hr) | 20:00- 21:00 | 50.4 | 35.8 | 50.6 | 0.1 | 50.7 | 35.8 | 50.8 | 0.1 |
| | | | Morning (50/hr) | 07:00- 08:00 | 47.6 | 40.78 | 48.4 | 0.8 | 48.6 | 40.8 | 49.3 | 0.7 |
| R7 | 384m | 579m | midday (10/hr) | 11:00- 12:00 | 47.8 | 33.8 | 48.0 | 0.2 | 48.9 | 33.8 | 49.0 | 0.1 |
| K/ | (60 km/h) | (50 km/h) | Afternoon (79/hr) | 16:00 - 17:00 | 46.0 | 42.76 | 47.7 | 1.7 | 47.1 | 42.8 | 48.4 | 1.4 |
| | | | Evening (16hr) | 20:00- 21:00 | 47.8 | 35.8 | 48.1 | 0.3 | 48.9 | 35.8 | 49.1 | 0.2 |

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The data in Table C therefore illustrates that any impacts due to offsite truck traffic at the existing nearest receptors are less than 3 dB(A) and therefore, not significant during the day. Furthermore, the offsite truck traffic assessment shows that any change will be significantly less than 5 dB(A) and thus well within the sound limits and the defined EA acceptance criteria for offsite vehicle movements during operational periods of site related vehicle movements given the context of the wider area and arterial road network.

5.0 RECOMMENDATIONS and CONCLUSIONS

Vintec Acoustics Inc. has conducted an acoustic assessment of the future site of the truck rental agency located at 7260 No. 5 Side Road, Town of Milton. This AAR describes a cumulative noise assessment for the predictable worst case as required per MECP protocols. Recommendations for noise management are as follows to ensure that any noise emissions from the subject facility are within acceptable sound limits as defined in NPC 300:

- To minimize impulse noise, there shall be no trailer decoupling/coupling activity occurring on site between the hours 2300 to 0700.
- To provide sustainable low noise emissions and subsequent minimal noise impact to nearby residential areas, a truck shunting and trailer coupling/decoupling best practices SOP (standard operating procedure) shall be prepared to ensure that operators practice care and caution of vehicle operation to minimize noise/speed/braking during truck marshalling yard activities and especially to minimize any loud impulse noise events such as decoupling/coupling and impact sounds during any time of the day.
- Any truck idling before 0700 or after 2300 (nighttime) shall be limited to less than 6 minutes in any given hour.
- Any planned changes of the truck leasing office and service building facility layout or any proposed changes to building equipment at grade and/or rooftop shall be reviewed for evaluation of noise emissions by the acoustic engineer.

With the implementation of the subject controls, it is concluded that predicted sound levels from the project shall be within acceptable limits as defined by MECP at all neighbouring sensitive points of reception. In this respect, noise from the subject facility is expected to be `acoustically' compatible with the surrounding environment and at the nearest sensitive residential receptors for both steady state and impulse noise; thus, well within allowable limits as defined by MECP and publication NPC-300. In addition, the change in ambient noise due to offsite traffic generated by the project is negligible and insignificant; thus, satisfying any applicable acceptance criteria. This acoustic assessment provides a framework to ensure that the subject facility operates in compliance with NPC-300 which forms the basis of environmental permitting and noise management requirements in the Province of Ontario.

Vintec Acoustics Inc.

6.0 REFERENCES:

- 1. Ministry of the Environment Publication NPC-300, "Environmental Noise Guideline Stationary and Transportation Sources-Approval and Planning", August 2013.
- $\textbf{2.} \quad \textbf{ISO 9613-2:1996, Acoustics-Attenuation of sound during propagation outdoors-Part 2: General method of calculation.} \\$
- 3. Ministry of Environment Publication NPC-104, "Sound Level Adjustments", 1977.
- 4. Ministry of the Environment Publication D-6, Compatibility between Industrial Facilities and Sensitive Land Uses, July 1995.
- 5. Paradigm Transportation Solutions Limited October 2021 200061
- 6. Next-Trans, 8584-8604-RR25---Noise-Impact-Study-Proposed Commercial Development, March 2024.

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APPENDIX: A Tables

Table 1 Noise Source Summary Table, Modelled noise sources

| | | | | Propose | | | | | | Fred | luency | | | | |
|-------------------------------|------------------|--------------------|------------------------------|------------------------------------|-------------|-------|----------|----------|-----------|-----------|-----------|------------|------------|------------|------------|
| Source | Source height | Number of items | Sound characteri stics | d Noise control measur es | Data Source | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| Exhaust | 1.8 | 3 | Steady | n/a | Measurement | 86 | 80 | 87 | 90 | 88 | 83 | 79 | 75 | 73 | 66 |
| Vent | 8 | 2 | Steady | n/a | Measurement | 87 | 81 | 88 | 91 | 89 | 84 | 80 | 76 | 74 | 67 |
| Facade Louvre / Compressor | tbc | 3.7 | Steady | n/a | Measurement | 96 | 89 | 92 | 94 | 95 | 93 | 91 | 89 | 86 | 81 |
| MAU | 1.5 | 2 | Steady | n/a | Measurement | 87 | 81 | 92 | 93 | 89 | 87 | 79 | 69 | 62 | 57 |
| Office RTU | 1.5 | 4 | Steady | n/a | Measurement | 86 | 80 | 87 | 90 | 88 | 83 | 79 | 75 | 73 | 66 |
| Transformer / Inverter | 1.5 | 1 (internal) | Steady | n/a | Measurement | 83 | 94 | 95 | 91 | 89 | 81 | 71 | 64 | 59 | 51 |
| Condensing Unit | 1.5 | 2 | Steady | n/a | Measurement | 88 | 82 | 93 | 94 | 90 | 88 | 80 | 70 | 63 | 58 |
| Loading Bay Doors | 1.5 | 2 | Steady | n/a | Measurement | 84 | 64 | 72 | 70 | 81 | 81 | 81 | 76 | 66 | 56 |
| Site Movements | 2 | tbc | Moving point source | n/a | Measurement | 88 | 82 | 89 | 92 | 90 | 85 | 81 | 77 | 75 | 68 |

Table 2 Calculated 1hr. Leq levels at POR1.

| Sauras | Source Description | Source | dD(A) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 33.2 | -13.4 | 6.8 | 21.6 | 27.8 | 28 | 26.9 | 22.9 | 16.1 | -9.7 |
| 2 | Exhaust 2 | 8 | 32.7 | -13.8 | 6.4 | 19.4 | 27.4 | 27.6 | 26.4 | 22.4 | 15.3 | -11.4 |
| 3 | Condensing Unit 1 | 1.5 | 34.9 | -10 | 14.1 | 25.2 | 28.6 | 31.8 | 26.6 | 16.6 | 4.6 | -20 |
| 4 | Condensing Unit 2 | 1.5 | 34.9 | -9.8 | 14.2 | 25.2 | 28.5 | 31.7 | 26.6 | 16.5 | 4.5 | -20.2 |
| 5 | Facade Louvre / Compressor | 3.7 | 32.9 | -8.1 | 7.5 | 18.9 | 26.4 | 28.3 | 27.4 | 23.2 | 12.8 | -14.2 |
| 6 | In | 2 | 39.7 | -4.7 | 15.4 | 28.5 | 33.8 | 34.4 | 33.4 | 29.6 | 24.2 | 5.1 |
| 7 | Loading Bay Door 1 | 2 | 33.3 | -25.4 | -4.3 | 3.8 | 22.2 | 27.4 | 30.2 | 25.2 | 10.4 | -18.5 |

| Course | Source Description | Source | 4D(A) | | | | | Frequen | су | | | |
|--------|-------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 8 | Loading Bay Door 2 | 2 | 33.2 | -25.5 | -4.4 | 3.7 | 22.1 | 27.3 | 30.1 | 25.1 | 10.2 | -18.9 |
| 9 | MAU 1 | 1.5 | 30.2 | -15.7 | 8.6 | 19.7 | 23.3 | 26.9 | 22.8 | 15.7 | 3.8 | -20.5 |
| 10 | MAU 1 | 1.5 | 29.1 | -16 | 8.2 | 19.3 | 22.7 | 26 | 21 | 11.3 | 0 | -22.6 |
| 11 | Office RTU 1 | 1.5 | 28.3 | -16.9 | 3.3 | 16.4 | 21.9 | 22.5 | 22.1 | 20.3 | 14.2 | -12.7 |
| 12 | Office RTU 2 | 1.5 | 27.1 | -17.1 | 3.1 | 16.1 | 21.5 | 21.8 | 20.8 | 17 | 10.4 | -15.1 |
| 13 | Office RTU 3 | 1.5 | 26.7 | -17.3 | 2.8 | 15.9 | 21.2 | 21.4 | 20.3 | 16.1 | 8.8 | -19.1 |
| 14 | Office RTU 4 | 1.5 | 26.9 | -17.2 | 3 | 16.1 | 21.4 | 21.7 | 20.5 | 16.5 | 9.4 | -17.7 |
| 15 | Out | 2 | 41.6 | -3 | 17.1 | 30.3 | 35.8 | 36.3 | 35.3 | 31.5 | 25.8 | 6 |
| 16 | Transformer / Inverter | 3.7 | 23.4 | -3 | 10.6 | 16 | 20.5 | 16.6 | 7.8 | -1.3 | -13.7 | -43.7 |
| 17 | Vent 1 | 4 | 34.6 | -9.5 | 10.7 | 23.7 | 29.1 | 29.3 | 28.1 | 24.1 | 17.2 | -9.3 |
| 18 | Vent 2 | 4 | 34.4 | -9.7 | 10.5 | 23.5 | 28.9 | 29.1 | 27.9 | 23.9 | 16.8 | -10.2 |
| | Total SPL at POR1 [dBA] | | 47.0 | 3.3 | 23.2 | 35.5 | 40.9 | 42.1 | 40.8 | 36.5 | 29.6 | 9 |

Table 3 Calculated 1hr. Leg levels at POR1 OLA.

| Sauman | Source Description | Source | dB(A) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | UB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 32 | -14.5 | 7 | 20.6 | 26.6 | 26.8 | 25.6 | 21.5 | 14 | -14.1 |
| 2 | Exhaust 2 | 8 | 31.6 | -14.9 | 6.6 | 20.2 | 26.2 | 26.4 | 25.2 | 21 | 13.3 | -15.7 |
| 3 | Condensing Unit 1 | 1.5 | 29.1 | -15 | 8.9 | 19.7 | 22.9 | 26 | 20.7 | 10.5 | -2.2 | -29.4 |
| 4 | Condensing Unit 2 | 1.5 | 33.8 | -10.9 | 13.2 | 24.2 | 27.5 | 30.7 | 25.4 | 15.2 | 2.5 | -24.8 |
| 5 | Facade Louvre / Compressor | 3.7 | 31.3 | -9 | 6.5 | 17.8 | 25 | 26.7 | 25.6 | 21.1 | 10 | -19.6 |
| 6 | In | 2 | 36.6 | -6.9 | 13 | 25.8 | 31 | 31.3 | 30.2 | 26.1 | 19.1 | -4.5 |
| 7 | Loading Bay Door 1 | 2 | 32.1 | -26.4 | -5.3 | 2.8 | 21.1 | 26.3 | 29.1 | 24 | 8.4 | -23 |
| 8 | Loading Bay Door 2 | 2 | 32 | -26.6 | -5.4 | 2.7 | 21 | 26.2 | 29 | 23.8 | 8.2 | -23.5 |
| 9 | MAU 1 | 1.5 | 29.2 | -16.6 | 7.6 | 18.7 | 22.3 | 26 | 21.9 | 14.4 | 1.9 | -24.9 |
| 10 | MAU 1 | 1.5 | 28.1 | -16.9 | 7.3 | 18.3 | 21.7 | 25 | 20 | 10.3 | -1.3 | -26.1 |
| 11 | Office RTU 1 | 1.5 | 27.4 | -17.9 | 2.3 | 15.4 | 20.9 | 21.5 | 21.2 | 19.7 | 12.3 | -17.2 |
| 12 | Office RTU 2 | 1.5 | 26.1 | -18.1 | 2.1 | 15.1 | 20.5 | 20.8 | 19.8 | 15.9 | 9 | -17.9 |
| 13 | Office RTU 3 | 1.5 | 25.7 | -18.3 | 1.9 | 14.9 | 20.3 | 20.4 | 19.2 | 14.9 | 6.9 | -23.4 |

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| Source | Source Description | Source | dB(A) | | | | | Frequen | су | | | |
|--------|-----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | ub(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 14 | Office RTU 4 | 1.5 | 25.9 | -18.1 | 2 | 15.1 | 20.4 | 20.7 | 19.5 | 15.4 | 7.8 | -21.5 |
| 15 | Out | 2 | 38.3 | -5.2 | 14.8 | 27.5 | 32.6 | 33.1 | 31.9 | 27.9 | 20.9 | -3.3 |
| 16 | Transformer / Inverter | 3.7 | 22.1 | -4 | 9.6 | 14.9 | 19.3 | 15.1 | 6 | -3.4 | -16.5 | -49.1 |
| 17 | Vent 1 | 4 | 33.6 | -10.4 | 9.8 | 22.8 | 28.2 | 28.3 | 27.1 | 22.9 | 15.3 | -13.7 |
| 18 | Vent 2 | 4 | 33.4 | -10.6 | 9.6 | 22.6 | 28 | 28.2 | 26.9 | 22.7 | 14.9 | -14.7 |
| To | Total SPL at POR1 OLA [dBA] | | | 1.8 | 21.4 | 33.5 | 38.7 | 39.9 | 38.7 | 34.1 | 25.8 | 0.2 |

Table 4 Calculated 1hr. Leg levels at POR2.

| | | Source | 10/4) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 34.1 | -11.4 | 9.2 | 23.1 | 28.5 | 28.8 | 27.6 | 23.7 | 17.3 | -7.2 |
| 2 | Exhaust 2 | 8 | 33.7 | -11.7 | 8.8 | 22.8 | 28.2 | 28.4 | 27.3 | 23.3 | 16.7 | -8.4 |
| 3 | Condensing Unit 1 | 1.5 | 27.6 | -14.3 | 9.3 | 19.7 | 22.2 | 24.1 | 17.2 | 5 | -9.5 | -36.7 |
| 4 | Condensing Unit 2 | 1.5 | 26.3 | -14.5 | 8.9 | 19 | 21 | 22.4 | 15.1 | 2.7 | -11.9 | -39.1 |
| 5 | Facade Louvre / Compressor | 3.7 | 28.7 | -8.7 | 6.2 | 16.7 | 23.1 | 23.9 | 22.2 | 17.7 | 7.3 | -19.4 |
| 6 | In | 2 | 38.6 | -5.6 | 14.6 | 27.6 | 32.9 | 33.3 | 32.2 | 28.4 | 22.2 | -0.4 |
| 7 | Loading Bay Door 1 | 2 | 33.4 | -27.8 | -4.1 | 3.9 | 22.3 | 27.5 | 30.4 | 25.4 | 10.7 | -17.9 |
| 8 | Loading Bay Door 2 | 2 | 33.2 | -25.5 | -4.3 | 3.7 | 22.1 | 27.3 | 30.2 | 25.2 | 10.3 | -18.8 |
| 9 | MAU 1 | 1.5 | 29.8 | -15.3 | 8.9 | 19.9 | 23.4 | 26.7 | 21.8 | 12.3 | 1.8 | -19 |
| 10 | MAU 1 | 1.5 | 29.2 | -15.7 | 8.4 | 19.5 | 22.9 | 26.1 | 20.9 | 10.9 | -1 | -25.4 |
| 11 | Office RTU 1 | 1.5 | 27.4 | -16.9 | 3.3 | 16.3 | 21.7 | 22 | 21 | 17.3 | 11 | -13.7 |
| 12 | Office RTU 2 | 1.5 | 27.1 | -17 | 3.2 | 16.2 | 21.6 | 21.8 | 20.6 | 16.5 | 9.4 | -17.7 |
| 13 | Office RTU 3 | 1.5 | 26.9 | -17.2 | 3 | 16.1 | 21.4 | 21.6 | 20.5 | 16.4 | 9.1 | -18.2 |
| 14 | Office RTU 4 | 1.5 | 27.1 | -17 | 3.2 | 16.2 | 21.6 | 21.8 | 20.6 | 16.6 | 9.4 | -17.6 |
| 15 | Out | 2 | 40.6 | -3.8 | 16.4 | 29.6 | 34.9 | 35.3 | 34.3 | 30.5 | 24.1 | 1 |
| 16 | Transformer / Inverter | 3.7 | 20.4 | -3.6 | 9.4 | 14 | 17.5 | 12.4 | 2.7 | -6.8 | -19.2 | -49 |
| 17 | Vent 1 | 4 | 34.5 | -9.6 | 10.6 | 23.7 | 29 | 29.2 | 28.1 | 24 | 17 | -9.5 |
| 18 | Vent 2 | 4 | 34.3 | -9.8 | 10.4 | 23.4 | 28.8 | 29 | 27.8 | 23.7 | 16.6 | -10.7 |
| | Total SPL at POR2 [dBA] | | 45.9 | 2.6 | 22.1 | 34.7 | 39.9 | 40.7 | 39.9 | 35.7 | 28.4 | 4.6 |

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Table 5 Calculated 1hr. Leq levels at POR2 OLA.

| C | Course Description | Source | -15/4) | | | | | Frequen | су | | | |
|--------|-----------------------------|------------|--------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 19.4 | -16.7 | 1.8 | 12.7 | 15.6 | 13.2 | 9.2 | 2.2 | -5.2 | -32.7 |
| 2 | Exhaust 2 | 8 | 19.1 | -16.9 | 1.5 | 12.4 | 15.3 | 12.9 | 8.9 | 1.8 | -5.8 | -33.9 |
| 3 | Condensing Unit 1 | 1.5 | 13.5 | -22 | -0.8 | 7.3 | 7.9 | 9.1 | 2.5 | -8.8 | -22.2 | -50.2 |
| 4 | Condensing Unit 2 | 1.5 | 13.4 | -22 | -0.9 | 7.3 | 7.8 | 9 | 2.4 | -8.8 | -22.3 | -50.3 |
| 5 | Facade Louvre / Compressor | 3.7 | 18.3 | -15.9 | -2.7 | 6.4 | 11.8 | 13.1 | 12.5 | 9.3 | -0.1 | -28 |
| 6 | In | 2 | 29.7 | -10.3 | 8.4 | 19.5 | 22.7 | 20.9 | 25.2 | 22.2 | 14.9 | -11.9 |
| 7 | Loading Bay Door 1 | 2 | 13.5 | -31.7 | -12.5 | -7.5 | 7.2 | 9.1 | 8.8 | 0.8 | -15.6 | -47.6 |
| 8 | Loading Bay Door 2 | 2 | 13.4 | -31.8 | -12.7 | -7.7 | 7.1 | 9 | 8.7 | 0.7 | -15.9 | -48.4 |
| 9 | MAU 1 | 1.5 | 21.1 | -15.8 | 6.5 | 15.2 | 16 | 16.5 | 8.5 | -4.6 | -17.6 | -44.2 |
| 10 | MAU 1 | 1.5 | 20.8 | -16.1 | 6.2 | 14.9 | 15.7 | 16.2 | 8.1 | -5 | -18.3 | -45.8 |
| 11 | Office RTU 1 | 1.5 | 18.9 | -17.2 | 1.3 | 12.2 | 15.1 | 12.7 | 8.6 | 1.5 | -7.3 | -37.3 |
| 12 | Office RTU 2 | 1.5 | 18.8 | -17.3 | 1.2 | 12.1 | 15 | 12.5 | 8.5 | 1.3 | -7.5 | -37.8 |
| 13 | Office RTU 3 | 1.5 | 17.8 | -18.9 | -0.3 | 10.9 | 14 | 11.6 | 7.6 | 0.4 | -8.2 | -38.6 |
| 14 | Office RTU 4 | 1.5 | 18.1 | -18 | 0.5 | 11.4 | 14.3 | 11.8 | 7.8 | 0.6 | -7.9 | -37.9 |
| 15 | Out | 2 | 31 | -8.5 | 10.1 | 21.1 | 24.2 | 22.1 | 26.1 | 23.9 | 16.5 | -10.7 |
| 16 | Transformer / Inverter | 3.7 | 9.4 | -10.8 | 0.4 | 3.5 | 5.9 | 1.1 | -7.5 | -15.7 | -27.1 | -58 |
| 17 | Vent 1 | 4 | 18.3 | -15.6 | 2.6 | 12.6 | 14.4 | 11.3 | 7 | -0.2 | -8.9 | -38.9 |
| 18 | Vent 2 | 4 | 18.1 | -15.8 | 2.4 | 12.5 | 14.3 | 11.2 | 6.9 | -0.5 | -9.4 | -40 |
| • | Total SPL at POR2 OLA [dBA] | | 35.0 | -2.4 | 16.1 | 26.3 | 29.1 | 27.5 | 29.3 | 26.4 | 18.9 | -8.1 |

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Table 6 Calculated 1hr. Leq levels at POR3.

| Source | Source Description | Source | dB(A) | | | | | Frequen | ісу | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | UB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 33.7 | -11.7 | 8.9 | 22.8 | 28.1 | 28.4 | 27.2 | 23.3 | 16.7 | -8.5 |
| 2 | Exhaust 2 | 8 | 33.4 | -11.9 | 8.7 | 22.5 | 27.9 | 28.2 | 27 | 23 | 16.3 | -9.3 |
| 3 | Condensing Unit 1 | 1.5 | 25.1 | -15.1 | 8.2 | 18.1 | 20 | 21.2 | 13.7 | 1.2 | -13.7 | -42 |
| 4 | Condensing Unit 2 | 1.5 | 23.2 | -15.5 | 7.4 | 16.8 | 18.1 | 18.9 | 11.2 | -1.4 | -16.1 | -44.1 |
| 5 | Facade Louvre / Compressor | 3.7 | 26.6 | -9.6 | 5.1 | 15.2 | 21.3 | 21.8 | 20 | 15.5 | 5 | -22.7 |
| 6 | In | 2 | 37.9 | -6.4 | 13.8 | 26.9 | 32.4 | 32.6 | 31.5 | 27.5 | 20.8 | -4.7 |
| 7 | Loading Bay Door 1 | 2 | 32.9 | -28.3 | -7.1 | 0.9 | 21.8 | 27 | 29.9 | 24.8 | 9.8 | -19.9 |
| 8 | Loading Bay Door 2 | 2 | 32.6 | -28.5 | -7.4 | 3.2 | 21.6 | 26.8 | 29.6 | 24.5 | 9.3 | -20.9 |
| 9 | MAU 1 | 1.5 | 29.3 | -15.7 | 8.5 | 19.5 | 22.9 | 26.2 | 21.1 | 11.2 | -0.3 | -23.8 |
| 10 | MAU 1 | 1.5 | 28.8 | -16.1 | 8.1 | 19.1 | 22.5 | 25.7 | 20.5 | 10.4 | -1.8 | -27 |
| 11 | Office RTU 1 | 1.5 | 26.7 | -17.4 | 2.8 | 15.9 | 21.2 | 21.4 | 20.2 | 16.1 | 8.7 | -19.2 |
| 12 | Office RTU 2 | 1.5 | 26.6 | -17.4 | 2.8 | 15.8 | 21.2 | 21.4 | 20.2 | 16 | 8.6 | -19.4 |
| 13 | Office RTU 3 | 1.5 | 26.5 | -17.5 | 2.7 | 15.7 | 21.1 | 21.3 | 20.1 | 15.9 | 8.5 | -19.7 |
| 14 | Office RTU 4 | 1.5 | 26.7 | -17.4 | 2.8 | 15.9 | 21.2 | 21.4 | 20.2 | 16.1 | 8.7 | -19.2 |
| 15 | Out | 2 | 39.6 | -4.5 | 15.6 | 28.8 | 34.1 | 34.3 | 33.2 | 29.1 | 22.3 | -3.3 |
| 16 | Transformer / Inverter | 3.7 | 18.7 | -4.4 | 8.3 | 12.6 | 15.7 | 10.3 | 0.6 | -9 | -21.6 | -52.3 |
| 17 | Vent 1 | 4 | 34 | -12.6 | 7.6 | 23.2 | 28.6 | 28.8 | 27.6 | 23.4 | 16.1 | -11.7 |
| 18 | Vent 2 | 4 | 24.8 | -16 | 4.3 | 16.3 | 20.6 | 19.4 | 16.5 | 10.4 | 0.6 | -30.2 |
| | Total SPL at POR3 [dBA] | | 44.9 | 1.6 | 21.1 | 33.7 | 39 | 39.7 | 38.9 | 34.5 | 26.8 | 8.0 |

Table 7 Calculated 1hr. Leq levels at POR4.

| Source | Source Description | Source | 4D(A) | | | | | Frequen | су | | | |
|--------|--------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 22.6 | -18.9 | 1 | 13.6 | 18.2 | 17.2 | 14.7 | 8.7 | -2.2 | -38.7 |
| 2 | Exhaust 2 | 8 | 20.3 | -19.2 | 0.5 | 12.6 | 16.4 | 14.7 | 11.3 | 4.2 | -7.8 | -45.8 |
| 3 | Condensing Unit 1 | 1.5 | 34.6 | -10.1 | 14.1 | 25.1 | 28.4 | 31.5 | 26.2 | 15.7 | 1.7 | -30.1 |

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| Source | Source Description | Source | 4D(A) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 4 | Condensing Unit 2 | 1.5 | 34.6 | -10.1 | 14.1 | 25.1 | 28.4 | 31.5 | 26.2 | 15.7 | 1.7 | -30.1 |
| 5 | Facade Louvre / Compressor | 3.7 | 41.6 | -3.8 | 12.4 | 24.4 | 32.7 | 35.8 | 36.5 | 35.6 | 25.6 | -6.1 |
| 6 | In | 2 | 36.3 | -8 | 12.1 | 25.1 | 30.7 | 31 | 30.2 | 25.8 | 17.8 | -10 |
| 7 | Loading Bay Door 1 | 2 | 30.1 | -28.2 | -7 | 1 | 19.3 | 24.4 | 27.1 | 21.6 | 4.7 | -32 |
| 8 | Loading Bay Door 2 | 2 | 30.1 | -28.2 | -7 | 1 | 19.3 | 24.4 | 27.1 | 21.6 | 4.7 | -31.9 |
| 9 | MAU 1 | 1.5 | 27.7 | -18.5 | 5.7 | 16.9 | 20.5 | 24.4 | 21.1 | 11.9 | -2.2 | -34.5 |
| 10 | MAU 1 | 1.5 | 26.5 | -18.7 | 5.5 | 16.6 | 20 | 23.4 | 18.6 | 9.3 | -2.5 | -35.1 |
| 11 | Office RTU 1 | 1.5 | 26.1 | -19.5 | 0.7 | 13.9 | 19.5 | 20.3 | 20.7 | 17.9 | 8.8 | -25.4 |
| 12 | Office RTU 2 | 1.5 | 24.8 | -19.7 | 0.5 | 13.6 | 19 | 19.3 | 18.5 | 15.1 | 8.5 | -26.1 |
| 13 | Office RTU 3 | 1.5 | 24 | -19.9 | 0.3 | 13.3 | 18.6 | 18.8 | 17.6 | 13.2 | 4.3 | -29.9 |
| 14 | Office RTU 4 | 1.5 | 24.4 | -19.8 | 0.4 | 13.5 | 18.8 | 19.1 | 18 | 14 | 6.1 | -26.6 |
| 15 | Out | 2 | 38.1 | -6.2 | 13.9 | 27.1 | 32.5 | 32.8 | 31.9 | 27.5 | 19.5 | -8.5 |
| 16 | Transformer / Inverter | 3.7 | 30.3 | 1.2 | 15.4 | 21.4 | 26.7 | 25.5 | 18.2 | 10.6 | -1.4 | -36.1 |
| 17 | Vent 1 | 4 | 32 | -11.8 | 8.4 | 21.4 | 26.7 | 26.8 | 25.5 | 21 | 12.1 | -21.5 |
| 18 | Vent 2 | 4 | 31.9 | -11.9 | 8.3 | 21.3 | 26.6 | 26.8 | 25.4 | 20.9 | 11.9 | -21.9 |
| | Total SPL at POR4 [dBA] | | 46.0 | 4.1 | 22.4 | 33.8 | 39.2 | 41 | 40.1 | 37.3 | 27.6 | -2.9 |

Table 8 Calculated 1hr. Leq levels at POR5.

| Saurea | Source Description | Source | dD(A) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 19 | -19.9 | -0.4 | 11.6 | 15.2 | 13.1 | 9.3 | 1.8 | -10.9 | -50.4 |
| 2 | Exhaust 2 | 8 | 15.9 | -20.6 | -1.6 | 9.5 | 12.2 | 9.5 | 5.3 | -2.4 | -15.5 | -55.3 |
| 3 | Condensing Unit 1 | 1.5 | 33.9 | -10.8 | 13.3 | 24.4 | 27.7 | 30.8 | 25.4 | 14.7 | 0.1 | -34.1 |
| 4 | Condensing Unit 2 | 1.5 | 33.9 | -10.8 | 13.3 | 24.4 | 27.7 | 30.8 | 25.4 | 14.7 | 0.1 | -34.1 |
| 5 | Facade Louvre / Compressor | 3.7 | 42.1 | -2.8 | 13.3 | 25.3 | 33.6 | 36.8 | 37.4 | 34.7 | 24.1 | -10 |
| 6 | In | 2 | 35.1 | -9 | 11.1 | 24.1 | 29.6 | 29.9 | 29 | 24.4 | 15.6 | -15.3 |
| 7 | Loading Bay Door 1 | 2 | 29.2 | -29 | -7.8 | 0.2 | 18.5 | 23.6 | 26.3 | 20.5 | 2.9 | -36.3 |
| 8 | Loading Bay Door 2 | 2 | 29.3 | -28.9 | -7.8 | 0.2 | 18.5 | 23.7 | 26.3 | 20.6 | 3 | -36.1 |
| 9 | MAU 1 | 1.5 | 26.9 | -19.3 | 4.9 | 16.1 | 19.7 | 23.6 | 20.3 | 10.8 | -4.1 | -39 |

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| Course | Source Description | Source | 4D(A) | | | | | Frequen | су | | | |
|--------|-------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 10 | MAU 1 | 1.5 | 25.8 | -19.4 | 4.8 | 15.9 | 19.3 | 22.6 | 17.8 | 8.5 | -4.2 | -39.4 |
| 11 | Office RTU 1 | 1.5 | 25.3 | -20.2 | 0 | 13.2 | 18.8 | 19.6 | 20 | 16.9 | 7.2 | -29.4 |
| 12 | Office RTU 2 | 1.5 | 24 | -20.4 | -0.2 | 12.9 | 18.3 | 18.6 | 17.8 | 14.3 | 6.9 | -30.1 |
| 13 | Office RTU 3 | 1.5 | 23.3 | -20.6 | -0.4 | 12.6 | 18 | 18.1 | 16.9 | 12.3 | 2.9 | -33.2 |
| 14 | Office RTU 4 | 1.5 | 23.6 | -20.5 | -0.3 | 12.8 | 18.1 | 18.4 | 17.3 | 13.1 | 4.9 | -30.6 |
| 15 | Out | 2 | 37.1 | -7.1 | 13 | 26.1 | 31.5 | 31.8 | 30.9 | 26.3 | 17.5 | -13.7 |
| 16 | Transformer / Inverter | 3.7 | 30.7 | 2.2 | 16.3 | 22.3 | 27.6 | 24.8 | 17.4 | 9.7 | -2.9 | -40 |
| 17 | Vent 1 | 4 | 31.3 | -12.5 | 7.7 | 20.7 | 26 | 26.1 | 24.8 | 20.1 | 10.5 | -25.4 |
| 18 | Vent 2 | 4 | 31.2 | -12.5 | 7.7 | 20.7 | 26 | 26.1 | 24.7 | 20 | 10.4 | -25.7 |
| | Total SPL at POR5 [dBA] | | | 4.5 | 22.2 | 33.3 | 38.9 | 40.8 | 40.1 | 36.3 | 25.9 | -7.4 |

Table 9 Calculated 1hr. Leq levels at POR4 & POR 5 OLA.

| Source | Source Description | Source | dB(A) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | UB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 21 | -19.6 | 0.2 | 12.6 | 16.9 | 15.5 | 12.4 | 5.6 | -6.6 | -45.9 |
| 2 | Exhaust 2 | 8 | 18.3 | -20 | -0.5 | 11.2 | 14.5 | 12.3 | 8.5 | 0.9 | -11.9 | -52.2 |
| 3 | Condensing Unit 1 | 1.5 | 33.9 | -10.8 | 13.4 | 24.4 | 27.7 | 30.8 | 25.4 | 14.7 | 0.1 | -34 |
| 4 | Condensing Unit 2 | 1.5 | 33.9 | -10.8 | 13.4 | 24.4 | 27.7 | 30.8 | 25.4 | 14.7 | 0.1 | -34 |
| 5 | Facade Louvre / Compressor | 3.7 | 42.1 | -4.4 | 11.7 | 23.8 | 33.7 | 36.8 | 37.4 | 34.7 | 24.1 | -9.9 |
| 6 | In | 2 | 35.7 | -8.9 | 11.3 | 24.2 | 29.8 | 30.5 | 29.7 | 25.2 | 16.4 | -14.3 |
| 7 | Loading Bay Door 1 | 2 | 29.3 | -28.9 | -7.8 | 0.3 | 18.6 | 23.7 | 26.3 | 20.6 | 3 | -35.9 |
| 8 | Loading Bay Door 2 | 2 | 29.3 | -28.9 | -7.7 | 0.3 | 18.6 | 23.7 | 26.4 | 20.6 | 3.1 | -35.8 |
| 9 | MAU 1 | 1.5 | 27 | -19.2 | 5 | 16.2 | 19.8 | 23.7 | 20.5 | 10.9 | -3.9 | -38.6 |
| 10 | MAU 1 | 1.5 | 25.8 | -19.4 | 4.8 | 15.9 | 19.3 | 22.7 | 17.9 | 8.6 | -4.1 | -39.1 |
| 11 | Office RTU 1 | 1.5 | 25.4 | -20.2 | 0.1 | 13.2 | 18.8 | 19.6 | 20.1 | 17 | 7.2 | -29.3 |
| 12 | Office RTU 2 | 1.5 | 24.1 | -20.4 | -0.2 | 12.9 | 18.3 | 18.7 | 17.9 | 14.4 | 7 | -30 |
| 13 | Office RTU 3 | 1.5 | 23.3 | -20.5 | -0.4 | 12.7 | 18 | 18.1 | 16.9 | 12.4 | 3 | -32.8 |
| 14 | Office RTU 4 | 1.5 | 23.7 | -20.4 | -0.3 | 12.8 | 18.1 | 18.4 | 17.3 | 13.2 | 5.1 | -30.4 |
| 15 | Out | 2 | 37.5 | -7 | 13.1 | 26.2 | 31.7 | 32.3 | 31.7 | 27.1 | 18.2 | -12.8 |

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| Caumaa | Source Description | Source | 4D(A) | | | | | Frequen | су | | | |
|--------|----------------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | · | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 16 | Transformer / Inverter | 3.7 | 30.7 | 0.6 | 16.4 | 22.4 | 27.7 | 24.8 | 17.4 | 9.7 | -2.9 | -39.9 |
| 17 | Vent 1 | 4 | 31.3 | -12.5 | 7.7 | 20.7 | 26 | 26.2 | 24.8 | 20.1 | 10.6 | -25.3 |
| 18 | Vent 2 | 4 | 32.2 | -12.5 | 7.7 | 20.7 | 26 | 27.5 | 26.2 | 21.4 | 11.7 | -24.7 |
| Tota | Total SPL at POR 4 & 5 OLA [dBA] | | | 3.4 | 22 | 33.2 | 39 | 41 | 40.3 | 36.5 | 26.2 | -6.9 |

Table 10 Calculated 1hr. Leq levels at POR6.

| C | Course Description | Source | -15/4) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|--------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | dB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 16.1 | -21.8 | -2.4 | 9.3 | 12.5 | 9.9 | 5.6 | -2.6 | -17.5 | -64.8 |
| 2 | Exhaust 2 | 8 | 13 | -22.6 | -3.8 | 7 | 9.3 | 6.4 | 1.9 | -6.5 | -21.5 | -68.9 |
| 3 | Condensing Unit 1 | 1.5 | 31.7 | -12.8 | 11.4 | 22.3 | 25.6 | 28.6 | 23.1 | 11.8 | -4.9 | -46.7 |
| 4 | Condensing Unit 2 | 1.5 | 31.7 | -12.8 | 11.4 | 22.3 | 25.6 | 28.6 | 23.1 | 11.8 | -4.9 | -46.7 |
| 5 | Facade Louvre / Compressor | 3.7 | 39.9 | -4.7 | 11.5 | 23.5 | 31.7 | 34.7 | 35.2 | 32 | 19.2 | -22.5 |
| 6 | In | 2 | 32.7 | -11.2 | 8.9 | 21.8 | 27.2 | 27.5 | 26.6 | 21.4 | 10.4 | -28.9 |
| 7 | Loading Bay Door 1 | 2 | 26.9 | -31 | -9.8 | -1.8 | 16.4 | 21.5 | 23.9 | 17.7 | -2.1 | -49.1 |
| 8 | Loading Bay Door 2 | 2 | 27 | -30.9 | -9.8 | -1.8 | 16.5 | 21.5 | 24 | 17.7 | -2 | -48.8 |
| 9 | MAU 1 | 1.5 | 24.9 | -21.3 | 3 | 14.1 | 17.7 | 21.6 | 18.5 | 7.9 | -9.1 | -51.8 |
| 10 | MAU 1 | 1.5 | 23.8 | -21.4 | 2.9 | 13.9 | 17.3 | 20.6 | 15.8 | 6.5 | -9.2 | -52 |
| 11 | Office RTU 1 | 1.5 | 23.3 | -22.2 | -1.9 | 11.2 | 16.8 | 17.6 | 18.2 | 14.1 | 2.2 | -42.1 |
| 12 | Office RTU 2 | 1.5 | 22 | -22.3 | -2.1 | 10.9 | 16.3 | 16.7 | 15.8 | 12.3 | 2 | -42.7 |
| 13 | Office RTU 3 | 1.5 | 21.5 | -22.5 | -2.3 | 10.8 | 16.1 | 16.3 | 15.1 | 10.5 | 0.8 | -43.6 |
| 14 | Office RTU 4 | 1.5 | 21.6 | -22.4 | -2.2 | 10.8 | 16.1 | 16.4 | 15.2 | 10.8 | 1.8 | -43.2 |
| 15 | Out | 2 | 34.5 | -9.3 | 10.8 | 23.7 | 29.2 | 29.4 | 28.3 | 23.2 | 12.1 | -27.3 |
| 16 | Transformer / Inverter | 3.7 | 28.7 | 0.3 | 14.5 | 20.5 | 25.7 | 22.7 | 15.2 | 7 | -7.8 | -52.5 |
| 17 | Vent 1 | 4 | 29.2 | -14.3 | 5.9 | 18.8 | 24.1 | 24.1 | 22.6 | 17.3 | 5.7 | -37.9 |
| 18 | Vent 2 | 4 | 29.2 | -14.3 | 5.8 | 18.8 | 24.1 | 24.1 | 22.6 | 17.3 | 5.6 | -38 |
| | Total SPL at POR6 [dBA] | | | 2.7 | 20.2 | 31.2 | 36.9 | 38.6 | 37.8 | 33.5 | 21 | -20.3 |

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Table 11 Calculated 1hr. Leq levels at POR7.

| Source | Source Description | Source | dB(A) | | | | | Frequen | су | | | |
|--------|----------------------------|------------|-------|-------|-------|--------|--------|---------|---------|---------|---------|---------|
| Source | Source Description | Height (m) | UB(A) | 31 Hz | 63 Hz | 125 Hz | 250 Hz | 500 Hz | 1.0 kHz | 2.0 kHz | 4.0 kHz | 8.0 kHz |
| 1 | Exhaust 1 | 8 | 23.3 | -20.3 | -0.2 | 12.8 | 18 | 18.6 | 16.8 | 10.7 | -3.6 | -56.1 |
| 2 | Exhaust 2 | 8 | 21.2 | -22.2 | -2.1 | 10.9 | 16 | 16.5 | 14.3 | 7.7 | -7.3 | -61.4 |
| 3 | Condensing Unit 1 | 1.5 | 27.6 | -16.8 | 7.1 | 17.9 | 21 | 24.8 | 18.9 | 6.7 | -13 | -64.3 |
| 4 | Condensing Unit 2 | 1.5 | 27.6 | -16.8 | 7.1 | 17.9 | 20.9 | 24.8 | 18.9 | 6.6 | -13.1 | -64.6 |
| 5 | Facade Louvre / Compressor | 3.7 | 33 | -11.4 | 4.5 | 16.2 | 24.2 | 28.4 | 28.6 | 24.5 | 9.1 | -41.8 |
| 6 | In | 2 | 31.4 | -13.1 | 6.9 | 19.6 | 25 | 27 | 25.6 | 19.8 | 6.5 | -39.7 |
| 7 | Loading Bay Door 1 | 2 | 25.4 | -32.6 | -11.4 | -3.5 | 14.7 | 20.2 | 22.5 | 15.6 | -6.4 | -61.4 |
| 8 | Loading Bay Door 2 | 2 | 25.4 | -32.6 | -11.4 | -3.5 | 14.7 | 20.2 | 22.5 | 15.6 | -6.4 | -61.5 |
| 9 | MAU 1 | 1.5 | 24.6 | -22.9 | 1.4 | 12.6 | 16.2 | 21.8 | 18.3 | 6.4 | -12.9 | -63.6 |
| 10 | MAU 1 | 1.5 | 23.5 | -23 | 1.2 | 12.3 | 15.6 | 21.1 | 16 | 6.2 | -13.1 | -64.3 |
| 11 | Office RTU 1 | 1.5 | 22.6 | -23.9 | -3.6 | 9.5 | 15.1 | 17.7 | 18.1 | 12.4 | -1.9 | -54.7 |
| 12 | Office RTU 2 | 1.5 | 21.6 | -24 | -3.8 | 9.2 | 14.6 | 17 | 15.9 | 12 | -2.1 | -55.4 |
| 13 | Office RTU 3 | 1.5 | 20.9 | -24.1 | -4 | 9 | 14.3 | 16.6 | 15.1 | 9.6 | -3.4 | -56.3 |
| 14 | Office RTU 4 | 1.5 | 21.2 | -24.1 | -3.9 | 9.1 | 14.4 | 16.8 | 15.5 | 10.5 | -2.3 | -55.7 |
| 15 | Out | 2 | 33.3 | -11.2 | 8.8 | 21.7 | 26.9 | 28.9 | 27.5 | 21.6 | 8.3 | -38.3 |
| 16 | Transformer / Inverter | 3.7 | 21.6 | -6.4 | 7.5 | 13.2 | 18.2 | 16.4 | 8.6 | -0.5 | -17.9 | -71.8 |
| 17 | Vent 1 | 4 | 25.2 | -18.2 | 1.7 | 14.5 | 19.6 | 20.5 | 18.8 | 12.8 | -1.3 | -53.6 |
| 18 | Vent 2 | 4 | 24.7 | -18.2 | 1.7 | 14.4 | 19.3 | 20.1 | 18.1 | 11.8 | -2.7 | -55.8 |
| | Total SPL at POR7 [dBA] | | 39.8 | -2.7 | 16 | 27.7 | 32.8 | 35.6 | 34.2 | 28.6 | 13.9 | -34.6 |

<u>Table 12 Calculated 1hr. Leq levels Overall dBA – all POR.</u>

| Source | Source Description | POR 1 SPL (dBA) | POR 1 OLA SPL (dBA | POR 2 SPL (dBA) | POR 2 OLA SPL (dBA) | POR 3 SPL (dBA | POR 4 SPL (dBA) | POR 5 SPL (dBA) | POR 4 & 5 OLA SPL (dBA) | POR 6 SPL (dBA) | POR 7 SPL (dBA) |
|--------|--------------------|-----------------------|-----------------------------|-----------------------|------------------------------|----------------------|-----------------------|-----------------------|-------------------------------------|-----------------------|-----------------------|
| 1 | Exhaust 1 | 33.2 | 32 | 34.1 | 19.4 | 33.7 | 22.6 | 19 | 21 | 16.1 | 23.3 |
| 2 | Exhaust 2 | 32.7 | 31.6 | 33.7 | 19.1 | 33.4 | 20.3 | 15.9 | 18.3 | 13 | 21.2 |
| 3 | Condensing Unit 1 | 34.9 | 29.1 | 27.6 | 13.5 | 25.1 | 34.6 | 33.9 | 33.9 | 31.7 | 27.6 |

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| Source | Source Description | POR 1 SPL (dBA) | POR 1 OLA SPL (dBA | POR 2 SPL (dBA) | POR 2 OLA SPL (dBA) | POR 3 SPL (dBA | POR 4 SPL (dBA) | POR 5 SPL (dBA) | POR 4 & 5 OLA SPL (dBA) | POR 6 SPL (dBA) | POR 7 SPL (dBA) |
|--------------------------|----------------------------|-----------------------|-----------------------------|-----------------------|------------------------------|----------------------|-----------------------|-----------------------|-------------------------------------|-----------------------|-----------------------|
| 4 | Condensing Unit 2 | 34.9 | 33.8 | 26.3 | 13.4 | 23.2 | 34.6 | 33.9 | 33.9 | 31.7 | 27.6 |
| 5 | Facade Louvre / Compressor | 32.9 | 31.3 | 28.7 | 18.3 | 26.6 | 41.6 | 42.1 | 42.1 | 39.9 | 33 |
| 6 | In | 39.7 | 36.6 | 38.6 | 29.7 | 37.9 | 36.3 | 35.1 | 35.7 | 32.7 | 31.4 |
| 7 | Loading Bay Door 1 | 33.3 | 32.1 | 33.4 | 13.5 | 32.9 | 30.1 | 29.2 | 29.3 | 26.9 | 25.4 |
| 8 | Loading Bay Door 2 | 33.2 | 32 | 33.2 | 13.4 | 32.6 | 30.1 | 29.3 | 29.3 | 27 | 25.4 |
| 9 | MAU 1 | 30.2 | 29.2 | 29.8 | 21.1 | 29.3 | 27.7 | 26.9 | 27 | 24.9 | 24.6 |
| 10 | MAU 1 | 29.1 | 28.1 | 29.2 | 20.8 | 28.8 | 26.5 | 25.8 | 25.8 | 23.8 | 23.5 |
| 11 | Office RTU 1 | 28.3 | 27.4 | 27.4 | 18.9 | 26.7 | 26.1 | 25.3 | 25.4 | 23.3 | 22.6 |
| 12 | Office RTU 2 | 27.1 | 26.1 | 27.1 | 18.8 | 26.6 | 24.8 | 24 | 24.1 | 22 | 21.6 |
| 13 | Office RTU 3 | 26.7 | 25.7 | 26.9 | 17.8 | 26.5 | 24 | 23.3 | 23.3 | 21.5 | 20.9 |
| 14 | Office RTU 4 | 26.9 | 25.9 | 27.1 | 18.1 | 26.7 | 24.4 | 23.6 | 23.7 | 21.6 | 21.2 |
| 15 | Out | 41.6 | 38.3 | 40.6 | 31 | 39.6 | 38.1 | 37.1 | 37.5 | 34.5 | 33.3 |
| 16 | Transformer / Inverter | 23.4 | 22.1 | 20.4 | 9.4 | 18.7 | 30.3 | 30.7 | 30.7 | 28.7 | 21.6 |
| 17 | Vent 1 | 34.6 | 33.6 | 34.5 | 18.3 | 34 | 32 | 31.3 | 31.3 | 29.2 | 25.2 |
| 18 | Vent 2 | 34.4 | 33.4 | 34.3 | 18.1 | 24.8 | 31.9 | 31.2 | 32.2 | 29.2 | 24.7 |
| Total SPL at POR's [dBA] | | 47.0 | 44.8 | 45.9 | 35 | 44.9 | 46 | 45.7 | 45.8 | 43.4 | 39.8 |

Table 13 Acoustic Assessment Summary.

| Receptor | Calculated 1 h Leq (dBA) | Verified by Acoustic | by | | | Cumulative Sound Levels including site equipment (dBA) | | | Compliance with Applicable |
|----------|-----------------------------|----------------------------|-----|---------|-------|--|---------|-------|----------------------------------|
| neceptor | Day, Evening, (Night) | Audit | Day | Evening | Night | Day | Evening | Night | sound level limit |
| POR1 | 52.8 (44.2) | no | 50 | 50 | 45 | 47.0 | 44.2 | n/a | Yes |
| POR1 OLA | 51.3 (42.7) | no | 50 | 50 | 45 | 44.8 | 42.7 | n/a | Yes |
| POR2 | 51.7 (43.1) | no | 50 | 50 | 45 | 45.9 | 43.1 | n/a | Yes |
| POR2 OLA | 38.7 (30.0) | no | 50 | 50 | 45 | 35.0 | 30.0 | n/a | Yes |

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| Calculated Receptor 1 h Leq (dBA) | | Verified by Acoustic | MECP noise requirements | | | Cumulative Sound Levels including site equipment (dBA) | | | Compliance with Applicable |
|-----------------------------------|-----------------------|----------------------------|-------------------------|---------|-------|--|---------|-------|----------------------------------|
| inesepto: | Day, Evening, (Night) | Audit | Day | Evening | Night | Day | Evening | Night | sound level limit |
| POR3 | 50.6 (41.9) | no | 50 | 50 | 45 | 44.9 | 41.9 | n/a | Yes |
| POR4 | 53.2 (44.7) | no | 50 | 50 | 45 | 46.0 | 44.7 | n/a | Yes |
| POR5 | 53.2 (46.6) | no | 50 | 50 | 45 | 45.8 | 44.6 | n/a | Yes |
| POR4&5 OLA | 53.1 (46.6) | no | 50 | 50 | 45 | 45.7 | 44.6 | n/a | Yes |
| POR6 | 51 (42.4) | no | 50 | 50 | 45 | 43.4 | 42.4 | n/a | Yes |
| POR7 | 46.4 (37.8) | no | 50 | 50 | 45 | 39.8 | 37.8 | n/a | Yes |

Table 14 Impulse Noise, dBAI Acoustic Assessment Summary.

| Receptor | Verified by Acoustic Audit | MI | (3 to 4 events) | ents | Impulse not | Compliance with Applicable sound level limit | | |
|------------|----------------------------------|-----|-----------------|-------|-------------|--|-------|-----|
| | | Day | Evening | Night | Day | Evening | Night | |
| POR1 | no | 65 | 65 | 60 | 51.8 | 51.5 | n/a | Yes |
| POR1 OLA | no | 65 | 65 | 60 | 55.6 | 55.4 | n/a | Yes |
| POR2 | no | 65 | 65 | 60 | 53.7 | 53.6 | n/a | Yes |
| POR2 OLA | no | 65 | 65 | 60 | 53.4 | 53.1 | n/a | Yes |
| POR3 | no | 65 | 65 | 60 | 52.9 | 52.6 | n/a | Yes |
| POR4 | no | 65 | 65 | 60 | 51.7 | 51.4 | n/a | Yes |
| POR5 | no | 65 | 65 | 60 | 51.3 | 51.0 | n/a | Yes |
| POR4&5 OLA | no | 65 | 65 | 60 | 49.0 | 48.8 | n/a | Yes |
| POR6 | no | 65 | 65 | 60 | 48.4 | 48.1 | n/a | Yes |
| POR7 | no | 65 | 65 | 60 | 59.4 | 59.2 | n/a | Yes |

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APPENDIX B: Figures, Zoning Map and Raw Sound data
Figure 4 - Noise Model set up - Location of the significant noise sources



Figure 5 - Noise Model set up - Location of the significant noise sources - Impulse noise coupling and decoupling

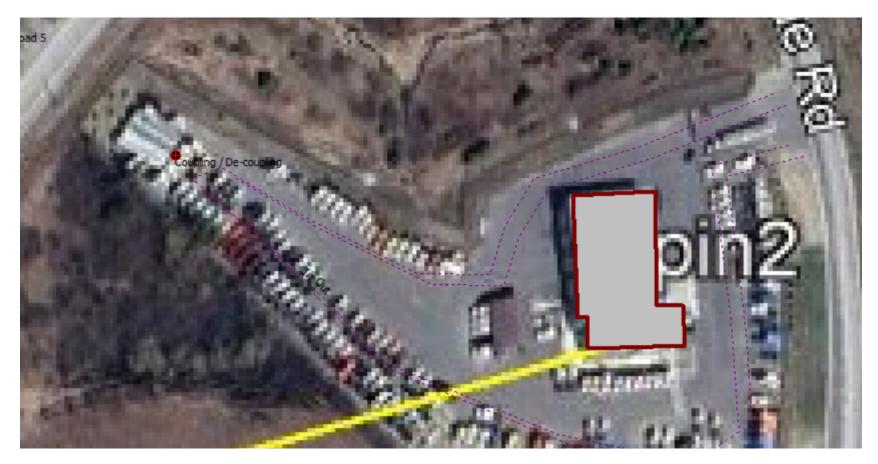


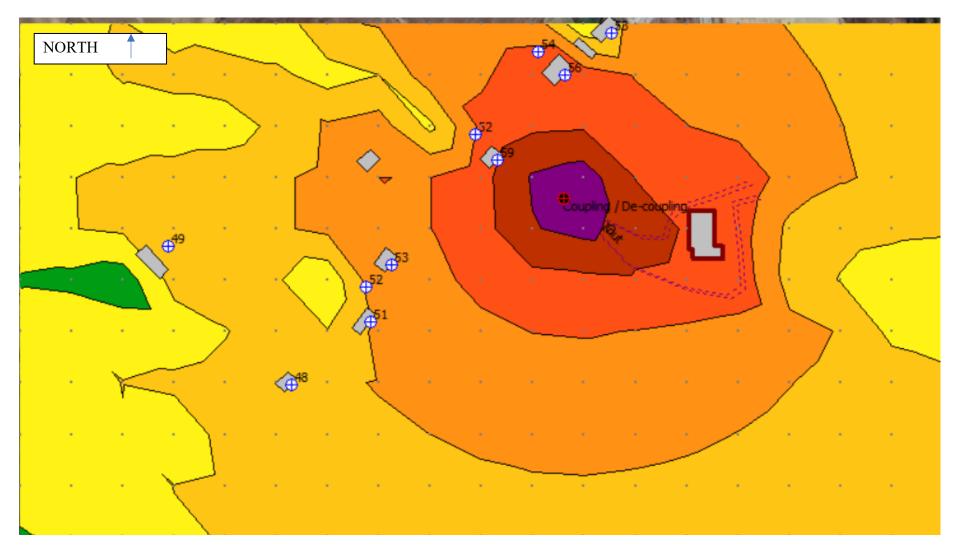
Figure 6 – Receptor Locations

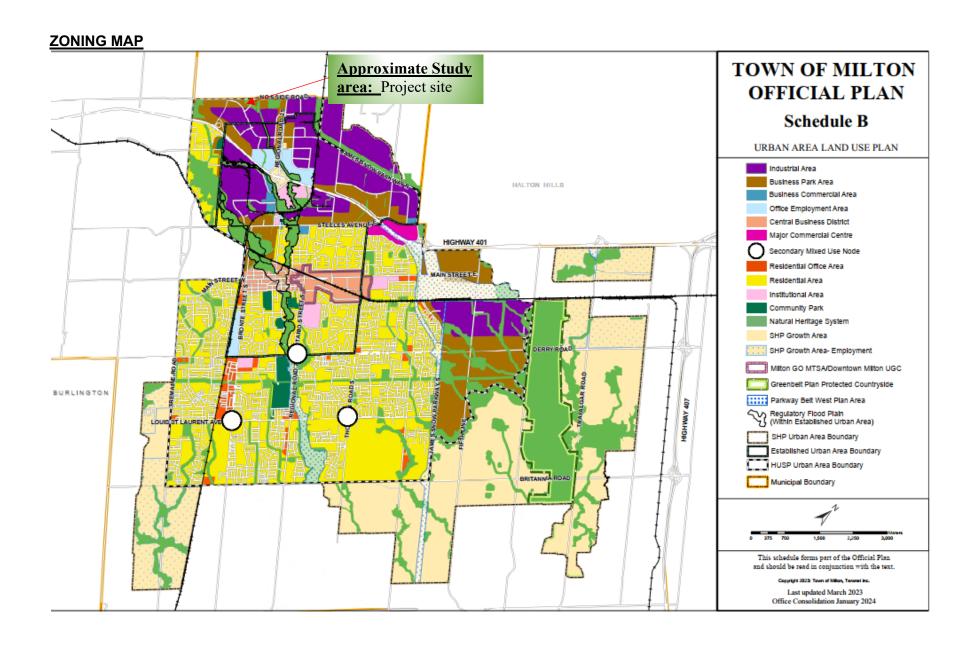


NORTH

Figure 7 - Noise Model set up - LAeq,1hr - Daytime 1.5m above ground level

Figure 8 - Noise Model set up - dBAI - Daytime 4.5 above ground level







Appendix C - STAMSON SAMPLE CACLUATIONS AND TRAFFIC DATA

Figure 1C: 1hour road traffic counts Regional Road 25 James Snow Parkway - 2022 Morning

| Regional Rd 25 @ | James Snow Pkwy | | | | |
|---|---|--|--|--|--|
| Morning Peak Diagram | Specified Period One Hour Peak From: 7:00:00 From: 7:45:00 To: 9:00:00 To: 8:45:00 | | | | |
| Municipality: Halton Region Site #: 1028110100 Intersection: Regional Rd 25 & James Snow Pkw TFR File #: 12 Count date: 8-Sep-2022 | Weather conditions: Clear/Dry Person(s) who counted: Cam | | | | |
| ** Signalized Intersection ** | Major Road: Regional Rd 25 runs N/S | | | | |
| North Leg Total: 1237 Heavys 9 85 13 10 North Entering: 764 Trucks 1 13 3 12 North Peds: 3 Cars 23 410 207 64 Peds Cross: ► Totals 33 508 223 | Trucks 18 East Entering: 606 | | | | |
| Heavys Trucks Cars Totals 150 18 350 518 James Snow Pkwy | Cars Trucks Heavys Totals 100 4 22 126 206 11 95 312 125 5 38 168 | | | | |
| Heavys Trucks Cars Totals 2 0 16 18 | James Snow Pkwy | | | | |
| 2 0 16 18 411 54 7 350 411 218 12 517 Regional Rd 25 | Cars Trucks Heavys Totals 744 13 98 855 | | | | |
| West Peds: 1 Trucks 23 Truck West Entering: 647 Heavys 185 Heav | rs 121 266 187 574 Peds Cross: ►4 ks 6 14 3 23 South Peds: 2 ys 46 49 31 126 South Entering: 723 is 173 329 221 South Leg Total: 1617 | | | | |
| Comr | | | | | |
| | | | | | |

Figure 2C: 1hour road traffic counts Regional Road 25 James Snow Parkway – 2022 Midday

| Regional Rd 25 @ Mid-day Peak Diagram | James Snow Pkwy Specified Period One Hour Peak From: 11:00:00 From: 13:00:00 To: 14:00:00 To: 14:00:00 | | | | |
|--|--|--|--|--|--|
| Municipality: Halton Region Site #: 1028110100 Intersection: Regional Rd 25 & James Snow Pkw TFR File #: 12 Count date: 8-Sep-2022 | Weather conditions: Clear/Dry Person(s) who counted: Cam | | | | |
| ** Signalized Intersection ** | Major Road: Regional Rd 25 runs N/S | | | | |
| North Entering: 529 Trucks 1 9 6 1 | 103 Heavys 72 East Leg Total: 697 Trucks 20 East Entering: 322 Cars 479 Totals 571 Peds Cross: \$\frac{1}{3}\$ | | | | |
| Heavys Trucks Cars Totals 164 18 204 386 James Snow Pkwy | Cars Trucks Heavys Totals 76 2 17 95 82 5 36 123 104 | | | | |
| Heavys Trucks Cars Totals | James Snow Pkwy | | | | |
| 3 0 21 24 22 4 63 89 3 92 3 108 203 | s | | | | |
| 92 3 108 203 The Regional Rd 25 | Cars Trucks Heavys Totals 257 18 100 375 | | | | |
| West Peds: 2 Trucks 16 Truc West Entering: 316 Heavys 208 Heav | ars 90 382 126 598 Peds Cross: ►4 ks 12 18 8 38 South Peds: 0 ys 119 52 54 225 South Entering: 861 als 221 452 188 South Leg Total: 1557 | | | | |
| Comi | ments | | | | |
| | | | | | |

Figure 3C: 1hour road traffic counts Regional Road 25 James Snow Parkway – 2022 Afternoon

| Regional Rd 25 @ | James Snow Pkwy |
|--|--|
| Mid-day Peak Diagram | Specified Period One Hour Peak From: 11:00:00 From: 13:00:00 To: 14:00:00 To: 14:00:00 |
| Municipality: Halton Region Site #: 1028110100 Intersection: Regional Rd 25 & James Snow Pkw TFR File #: 12 Count date: 8-Sep-2022 | Weather conditions: Clear/Dry Person(s) who counted: Cam |
| ** Signalized Intersection ** | Major Road: Regional Rd 25 runs N/S |
| North Entering: 529 Trucks 1 9 6 16 | Heavys 72 Trucks 20 Cars 479 Totals 571 Heavys 72 East Leg Total: 697 East Entering: 322 East Peds: 0 Peds Cross: I |
| Heavys Trucks Cars Totals (164 18 204 386 | Cars Trucks Heavys Totals 76 2 17 95 82 5 36 123 54 4 46 212 11 99 |
| Heavys Trucks Cars Totals | James Snow Pkwy |
| 3 0 21 24 2 22 4 63 89 3 92 3 108 203 | s ==================================== |
| 92 3 108 203 Regional Rd 25 | Cars Trucks Heavys Totals 257 18 100 375 |
| West Peds: 2 Trucks 16 Truck West Entering: 316 Heavys 208 Heavy | rs 90 382 126 598 Peds Cross: № South Peds: 0 ys 119 52 54 225 South Entering: 861 221 452 188 South Leg Total: 1557 |
| Comr | nents |
| | |

1hr vehicle movements at R1 – 2024: TRAFFIC NOISE CALCULATIONS

SUMMARY REPORT Date: 11-09-2024 14:24:07 MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT Time Period: 1 hours Filename: r1.te Description: Road data, segment # 1: morn _____ Car traffic volume : 607 veh/TimePeriod Medium truck volume : 14 veh/TimePeriod Heavy truck volume : 110 veh/TimePeriod Posted speed limit : 60 km/h Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete) Data for Segment # 1: morn _____ Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods. No of house rows : 0 Surface : 1 (Absorptive) (No woods.) (Absorptive ground surface) Receiver source distance : 151.00 m Receiver height : 1.50 mTopography : 1
Reference angle : 0.00 : 1 (Flat/gentle slope; no barrier) Road data, segment # 2: mid _____ Car traffic volume : 336 veh/TimePeriod Medium truck volume : 16 veh/TimePeriod Heavy truck volume : 117 veh/TimePeriod Posted speed limit : 60 km/hRoad gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete) Data for Segment # 2: mid Angle1 Angle2 : -90.00 deg 90.00 deg
Wood depth : 0 (No woods.)
No of house rows : 0
Surface : 1 (Absorptive (Absorptive ground surface) Receiver source distance : 151.00 m Receiver height : 1.50 m Topography : 1 (Flat/gentle slope; no barrier) Reference angle : 0.00 Road data, segment # 3: aft _____ Car traffic volume : 443 veh/TimePeriod Medium truck volume : 7 veh/TimePeriod Heavy truck volume : 76 veh/TimePeriod

Vintec Acoustics Inc.

Posted speed limit : 60 km/h 0 % Road gradient :

Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 3: aft ______

Angle1 Angle2 : -90.00 deg Wood depth : 0 (No woods (No woods.)

No of house rows : 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 151.00 m Receiver height : 1.50 m

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

Reference angle : 0.00

Road data, segment # 4: eve ______

Car traffic volume : 336 veh/TimePeriod Medium truck volume : 16 veh/TimePeriod Heavy truck volume : 117 veh/TimePeriod

Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete)

Data for Segment # 4: eve ______

Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods.)

No of house rows : 0

Surface : 1 (Absorptive ground surface)

Receiver source distance : 151.00 m Receiver height : 1.50 m

Topography (Flat/gentle slope; no barrier) 1

Reference angle : 0.00

Result summary

| | ! ! ! | source height (m) | !!! | Road Leq (dBA) | !! | Total Leq (dBA) |
|--------|-------------|-------------------------|--------------|----------------------|----|-----------------------|
| | +- | | - - - | +- | | |
| 1.morn | ! | 1.97 | ! | 54.30 | ! | 54.30 |
| 2.mid | ! | 2.23 | ! | 54.46 | ! | 54.46 |
| 3.aft | ! | 1.95 | ! | 52.67 | ! | 52.67 |
| 4.eve | ! | 2.23 | ! | 54.46 | ! | 54.46 |
| | +- | | - | +- | | |
| | | Total | | | | 60 05 dB1 |

60.05 dBA

TOTAL Leg FROM ALL SOURCES: 60.05

1hr vehicle movements at R1 – 2028

STAMSON 5.0 SUMMARY REPORT Date: 11-09-2024 14:26:53

Vintec Acoustics Inc.

MINISTRY OF ENVIRONMENT AND ENERGY / NOISE ASSESSMENT Time Period: 1 hours Filename: r1.te Description: Road data, segment # 1: morn ______ Car traffic volume : 638 veh/TimePeriod Medium truck volume : 15 veh/TimePeriod Heavy truck volume : 116 veh/TimePeriod Posted speed limit : 60 km/h
Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete) Data for Segment # 1: morn _____ Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods No of house rows : 0
Surface (No woods.) (Absorptive ground surface) Receiver source distance : 151.00 m Receiver height : 1.50 m : 1 (Flat/gentle slope; no barrier) Topography Reference angle : 0.00 Road data, segment # 2: mid _____ Car traffic volume : 357 veh/TimePeriod Medium truck volume : 17 veh/TimePeriod Heavy truck volume : 124 veh/TimePeriod Posted speed limit : 60 km/h Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete) Data for Segment # 2: mid _____ Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods No of house rows : 0 Surface : 1 (Absorptive (No woods.) (Absorptive ground surface) Receiver source distance : 151.00 m Receiver height : 1.50 m
Topography : 1 Topography : 1
Reference angle : 0.00 (Flat/gentle slope; no barrier) Road data, segment # 3: aft ______ Car traffic volume : 470 veh/TimePeriod Medium truck volume : 8 veh/TimePeriod Heavy truck volume : 81 veh/TimePeriod Posted speed limit : 60 km/h Road gradient : 0 %

Vintec Acoustics Inc.

Road pavement : 1 (Typical asphalt or concrete) Data for Segment # 3: aft _____ Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods. No of house rows : 0 Surface : 1 (Absorptive (No woods.) Surface (Absorptive ground surface) 1 Receiver source distance : 151.00 m Receiver height : 1.50 m : 1 (Flat/gentle slope; no barrier) Topography Reference angle : 0.00 Road data, segment # 4: eve _____ Car traffic volume : 357 veh/TimePeriod Medium truck volume : 17 veh/TimePeriod Heavy truck volume : 124 veh/TimePeriod Posted speed limit : 60 km/h Road gradient : 0 %
Road pavement : 1 (Typical asphalt or concrete) Data for Segment # 4: eve Angle1 Angle2 : -90.00 deg 90.00 deg Wood depth : 0 (No woods.) No of house rows : 0 Surface 1 (Absorptive ground surface) Receiver source distance : 151.00 m Receiver height : 1.50 mTopography : 1 (Flat/gentle slope; no barrier) Reference angle : 0.00 Result summary _____ ! source ! Road ! Total ! height ! Leq ! Leq ! (m) ! (dBA) ! (dBA) ______ ! 1.97 ! 54.53 ! 54.53 ! 2.23 ! 54.71 ! 54.71 ! 1.95 ! 52.95 ! 52.95 ! 2.23 ! 54.71 ! 54.71 2.mid 3.aft -----+----+-----60.30 dBA Total

Vintec Acoustics Inc.

SAMPLE iNoise Calculations (ISO 9613)

Testfile openend: 2024-09-12 10:44:47 AM

>>> CALCULATION SPECIFICATION

: 3.46 (64-bit) Version Mapname : Stationary

MethodID : 513

Model bounds - Min : (-86.90, 691.64)
Model bounds - Max : (722.01, 1257.76)
Min. ground level : 0.00

: 6 CalcTestLevel Do Shape Export : No Fetching radius : 5000.00 : 0.00 ErrorMargin Max.reflection distance: --Max.reflection depth : 1 Default ground factor : 0.00 Meteo correction : None

Max.barrier attenuation: According to ISO standard

Dmax1 / Dmax2 : 20.00 / 25.00

: Yes Full DTM

Ground attenuation : Avoid overestimating barriereffect
Barrier attenuation : According to ISO 9613; also for direct sight

DIcalculation : No TemperatureK : 283.15 : 70.00 Humidity : 101.33 Pressure GroundAttAlternative : No : 337.30 SpeedOfSound

Alu : 0.032 \ 0.122 \ 0.411 \ 1.043 \ 1.928 \ 3.658 \ 9.664

\ 32.770 \ 116.882

Cross section for receiver 1 (Id=-71) and source Id=-64

| ItemType | Id | Distance | X | Y | Hgrnd |
|------------|----------------|----------|--------|---------|-------|
| Height Gr | ndFact Cluster | | | | |
| Receiver | 1 | 0.000 | 344.20 | 1042.34 | 0.00 |
| 1.50 | 0.00 | | | | |
| Pointsourd | ce Id=-64 | 267.032 | 606.13 | 990.39 | 0.00 |
| 2.00 | 0.00 | | | | |

Vintec Acoustics Inc.

| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
|-------------------------------|------------------|-----------|-------|--------|-------|-------|---------|---------|
| A(ground) -4.82 | -4.82 | -4.82 | -4.82 | -4.82 | -4.82 | -4.82 | -4.82 | -4.82 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(veg) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(sit) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(bld) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(air) 31.21 | 0.01 | 0.03 | 0.11 | 0.28 | 0.51 | 0.98 | 2.58 | 8.75 |
| A(geo) 59.52 | 59.52 | 59.52 | 59.52 | 59.52 | 59.52 | 59.52 | 59.52 | 59.52 |
| | 0.00 | | | | | | | |
| -19.01 3 | | | | | | | | |
| Cross section [Reflection i | for receive | er 1 (Id: | | | | | | |
| ItemType Height GrndF | Id act Cluste | | tance | Σ | X | Y | Hgrnd | |
| Receiver 1.50 0.0 | 1 | | 0.000 | 344.20 | 104 | 42.34 | 0.00 | |
| Building(R) 8.60 0.0 | 4 | 22 | 4.058 | 555.30 | 9 (| 67.26 | 0.00 | |
| Pointsource 2.00 0.0 | Id=-64 | | 9.902 | | | 90.39 | 0.00 | |
| Cross section | | | | | | | | |
| ItemType | | | tance | Σ | X | Y | Hgrnd | |
| Height GrndF Receiver | 1 | ;r | 0.000 | 344.20 | 0 104 | 42.34 | 0.00 | |
| 1.50 0.0 Pointsource 2.00 0.0 | Id=-63 | | | | | | | |
| L(wr) 66.90 | | | | | | | | |

| A(ground) -4.72 | -4.72 | -4.72 | -4.72 | -4.72 | -4.72 | -4.72 | -4.72 | -4.72 |
|--|--|---|---|--|---|---|--|-----------------------|
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.10 | 0.26 | 0.48 | 0.90 | 2.39 | 8.09 |
| 28.85 A(geo) | 58.84 | 58.84 | 58.84 | 58.84 | 58.84 | 58.84 | 58.84 | 58.84 |
| 0.00 | 0.00 | | | | | | | |
| L(p) -16.07 32. | -11.52 | | | | | | | |
| | for receive | er 1 (Id: | =-71) and | d source | Id=-63 | | | |
| [Reflection in | facade 4 | (Id=13)] | | | | | | |
| ItemType | Id | Dis | tance | Σ | ζ | Y | Hgrnd | |
| ItemType Height GrndFac Receiver | Id ct Cluste | Dis [†] | | 344.20 | | | _ | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) | Id ct Cluste 1 | Dis [:] er | | 344.20 |) 104 | | _ | |
| ItemType Height GrndFac Receiver 1.50 0.00 | Id ct Cluste 1 4 | Dis | 0.000 | 344.20 552.75 |) 104 5 96 | 12.34 | 0.00 | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource | Id ct Cluste 1 4 | Dis | 0.000 | 344.20 552.75 |) 104 5 96 | 42.34 67.15 | 0.00 | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id ct Cluste 1 4 | Dis | 0.000 | 344.20 552.75 |) 104 5 96 | 42.34 67.15 | 0.00 | 76.00 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-63 | Dist | 0.000 1.694 5.384 | 344.20 552.75 583.36 |) 104 5 96 6 98 | 42.34 67.15 31.24 | 0.00 | 76.00 -4.77 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-63 42.60 | Dis- 22: 25: 62.80 | 0.000 1.694 5.384 | 344.20 552.75 583.36 | 10. 5 98 5 98 81.80 | 42.34 67.15 31.24 81.00 | 0.00 0.00 0.00 78.20 | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-63 42.60 -4.77 | Distance | 0.000 1.694 5.384 75.90 -4.77 | 344.20 552.75 583.36 81.40 -4.77 | 96 98 81.80 -4.77 | 42.34 67.15 81.24 81.00 -4.77 | 0.00 0.00 0.00 78.20 | -4.77 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-63 | Distance | 0.000 1.694 5.384 75.90 -4.77 0.00 | 344.20 552.75 583.36 81.40 -4.77 | 104 5 98 6 98 81.80 -4.77 | 42.34 67.15 31.24 81.00 -4.77 | 0.00 0.00 0.00 78.20 -4.77 | -4.77 0.00 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-63 42.60 -4.77 2.02 0.00 | Disfer (22: 25: 25: 25: 25: 25: 25: 25: 25: 25: | 0.000 1.694 5.384 75.90 -4.77 0.00 0.00 | 344.20 552.75 583.36 81.40 -4.77 0.00 0.00 | 10. 5 98 5 98 81.80 -4.77 0.00 0.00 | 42.34 67.15 31.24 81.00 -4.77 0.00 0.00 | 0.00 0.00 0.00 78.20 -4.77 0.00 | -4.77 0.00 0.00 |

| A(geo) | 59.14 | 59.14 | 59.14 | 59.14 | 59.14 | 59.14 | 59.14 | 59.14 |
|---------------------------------|----------------|-----------|-----------|----------|--------|-------|-------|-------|
| 59.14 A(refl) | | | | | | | -0.97 | -0.97 |
| -0.97 C(meteo) 0.00 | | | | 0.00 | | | 0.00 | |
| L(p) -18.29 21 | | | | | | | | |
| Cross section | | | | | | | | |
| ItemType | | | | X | | Y | Hgrnd | |
| Height GrndFa Receiver | ct Cluste | er | | 344.20 | | | - | |
| 1.50 0.00 Pointsource 2.00 0.00 | Id=-62 | | | | | | | |
| | | | | | | | | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| A(ground) -4.61 | -4.61 | -4.61 | -4.61 | -4.61 | -4.61 | -4.61 | -4.61 | -4.61 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.09 | 0.24 | 0.44 | 0.83 | 2.19 | 7.42 |
| 26.48 A(geo) | 58.10 | 58.10 | 58.10 | 58.10 | 58.10 | 58.10 | 58.10 | 58.10 |
| 58.10 C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L(p) -13.07 33 | -10.89 3.13 | | | | | | | |
| | | | | | | | | |
| Cross section | for receive | er 1 (Id= | =-71) and | l source | Id=-61 | | | |
| ItemType Height GrndFa | | | tance | X | | Υ | Hgrnd | |

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| Receiver | 1 | (| 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
|---------------------------------------|--------|-------|-------|--------|-------|-------|-------|----------------|
| 1.50 0.00 Pointsource 2.00 0.00 | | | | | | | | |
| L(wr) | | 62.80 | | 81.40 | | | | |
| 66.90 A(ground) -4.51 | -4.51 | -4.51 | -4.51 | -4.51 | -4.51 | -4.51 | -4.51 | -4.51 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.09 | 0.22 | 0.41 | 0.77 | 2.04 | 6.93 |
| 24.73 A(geo) | 57.50 | 57.50 | 57.50 | 57.50 | 57.50 | 57.50 | 57.50 | 57.50 |
| 57.50 C(meteo) 0.00 | 0.00 | | | | | | | 0.00 |
| L(p) -10.82 33. | -10.40 | | | | | | | |
| Cross section f | | | | | | | | |
| | Id | | cance | X | | Y | Hgrnd | |
| Height GrndFac Receiver | | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| 1.50 0.00 Pointsource 2.00 0.00 | Id=-60 | 212 | 2.872 | 530.65 | 93 | 39.63 | 0.00 | |
| | 42.60 | | 75 00 | 01 40 | 01 00 | 01 00 | 70 20 | 76.00 |
| L(wr) 66.90 A(ground) -4.52 | | | | 81.40 | | | | 76.00 -4.52 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 | | | 0.00 |

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| A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|-------------------------------------|-----------------|-----------|-----------|----------|--------|-------|-------|-------|
| 0.00 A(air) | 0.01 | 0.03 | 0.09 | 0.22 | 0.41 | 0.78 | 2.06 | 6.98 |
| 24.88 A(geo) | 57.55 | 57.55 | 57.55 | 57.55 | 57.55 | 57.55 | 57.55 | 57.55 |
| 57.55 C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | |
| L(p) -11.02 3 | -10.44 33.62 | 9.74 | 22.78 | 28.14 | 28.36 | 27.19 | 23.11 | 15.99 |
| | | | | | | | | |
| Cross section | o for receive | er 1 (Id: | =-71) and | d source | Td=-60 | | | |
| [Reflection i | | | – /1) and | a source | 1u- 00 | | | |
| ItemType | | | tance | Σ | K | Y | Hgrnd | |
| Height GrndE Receiver | 1 | | 0.000 | 344.20 | 10 | 42.34 | 0.00 | |
| 1.50 0.0 Building(R) | 4 | 22 | 7.221 | 552.28 | 3 9. | 51.05 | 0.00 | |
| 8.60 0.0 Pointsource 2.00 0.0 | Id=-60 | 25 | 1.674 | 530.65 | 5 9: | 39.63 | 0.00 | |
| | | | | | | | | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| A(ground) -4.75 | -4.75 | -4.75 | -4.75 | -4.75 | -4.75 | -4.75 | -4.75 | -4.75 |
| A(barrier) | 0.64 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.10 | 0.26 | 0.49 | 0.92 | 2.43 | 8.25 |
| 29.42 A(geo) | 59.01 | 59.01 | 59.01 | 59.01 | 59.01 | 59.01 | 59.01 | 59.01 |
| 59.01 | | | | | -0.97 | -0.97 | -0.97 | -0.97 |
| A(refl) -0.97 | | | | | | | | |
| C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L(p) | | | | | 26.09 | 24.85 | 20.54 | 12.52 |
| -17.75 2 | 29.26 | | | | | | | |

| Cross section for | r receive | er 1 (Id= | =-71) and | d source | Id=-59 | | | |
|-------------------------------------|--------------|-----------|-----------|----------|--------|-------|-------|-------|
| ItemType : Height GrndFact | Id Cluste | | cance | X | | Y | Hgrnd | |
| Receiver | 1 | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| 1.50 0.00 Pointsource 2.00 0.00 | Id=-59 | | | 506.43 | | | | |
| L(wr) | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| 66.90 A(ground) -4.35 | -4.35 | -4.35 | -4.35 | -4.35 | -4.35 | -4.35 | -4.35 | -4.35 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.02 | 0.08 | 0.20 | 0.37 | 0.70 | 1.85 | 6.27 |
| 22.37 A(geo) | 56.63 | 56.63 | 56.63 | 56.63 | 56.63 | 56.63 | 56.63 | 56.63 |
| 56.63 C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L(p) -7.75 34.45 | | 10.50 | 23.54 | 28.92 | 29.15 | 28.02 | 24.07 | 17.45 |
| | | | | | | | | |
| Cross section for [Reflection in fa | | | =-71) and | d source | Id=-59 | | | |
| | Id | | cance | X | Z. | Y | Hgrnd | |
| | 1 | (T | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| 1.50 0.00 Building(R) | 4 | 222 | 2.603 | 551.87 | 9 (| 62.19 | 0.00 | |
| 8.60 0.00 Pointsource 2.00 0.00 | | | | | | | | |
| | | | | | | | | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |

| A(ground) -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 |
|--|--|------------|--------------------------------|--|--------------------------------|--------------------------------------|--|--------------------------------|
| A(barrier) | 2.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(veg) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.11 | 0.28 | 0.53 | 1.00 | 2.64 | 8.94 |
| 31.89 A(geo) | 59.71 | 59.71 | 59.71 | 59.71 | 59.71 | 59.71 | 59.71 | 59.71 |
| 59.71 A(refl) | | | | | -0.97 | -0.97 | -0.97 | -0.97 |
| -0.97 C(meteo) 0.00 | 0.00 | | | 0.00 | | | | 0.00 |
| L(p) -20.83 28 | | | | | 25.44 | | | |
| | | | | | | | | |
| | | | | | | | | |
| Cross section | for receive | er 1 (Id= | =-71) and | d source | Id=-58 | | | |
| Cross section ItemType | Id | Dist | =-71) and | | Id=-58 | Y | Hgrnd | |
| Cross section ItemType Height GrndFa Receiver | Id act Cluste 1 | Dist er | | Σ | | | _ | |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1) Id=-58 | Dister (| 0.000 7.010 | 344.20 484.42 | X 0 104 2 9! | 42.34 51.61 | 0.00 | |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1) Id=-58) | Dist | tance 0.000 7.010 | 344.20 484.42 | () 104 2 95 | 42.34 51.61 | 0.00 | 76.00 |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1) Id=-58) | Dist | tance 0.000 7.010 | 344.20 484.42 | () 104 2 95 | 42.34 51.61 | 0.00 | |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1 0 Id=-58 0 | Dist | 75.90 | 344.20 484.42 | 2 99 81.80 | 42.34 51.61 81.00 | 0.00 | 76.00 |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1 0 1 d=-58 0 | Dist | 75.90 -4.11 | 344.20 484.42 81.40 -4.11 | 81.80 -4.11 | 42.34 51.61 81.00 -4.11 | 0.00 0.00 78.20 -4.11 | 76.00 -4.11 |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1 0 1 d=-58 0 -4.11 0.00 | Distance | 75.90 -4.11 | 344.20 484.42 81.40 -4.11 | 81.80 -4.11 | 81.00 -4.11 | 0.00 0.00 78.20 -4.11 | 76.00 -4.11 0.00 |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1 0 Id=-58 0 42.60 -4.11 0.00 0.00 | Dist | 75.90 -4.11 0.00 | 344.20 484.42 81.40 -4.11 0.00 0.00 | 81.80 -4.11 0.00 0.00 | 81.00 -4.11 0.00 0.00 | 0.00 0.00 78.20 -4.11 0.00 | 76.00 -4.11 0.00 0.00 |
| Cross section ItemType Height GrndFa Receiver 1.50 0.00 Pointsource 2.00 0.00 | Id act Cluste 1 0 Id=-58 0 | Dist | 75.90 -4.11 0.00 0.00 | 344.20 484.42 81.40 -4.11 0.00 0.00 0.00 | 81.80 -4.11 0.00 0.00 | 81.00 -4.11 0.00 0.00 | 0.00 0.00 78.20 -4.11 0.00 0.00 | 76.00 -4.11 0.00 0.00 |

| C(meteo) | | 0.00 | | | | | | | 0.00 |
|-----------------------------|-----------|--------------|-----------|-----------|----------|--------|-------|-------|-------|
| L(p) -3.95 | 35.48 | -8.74 | 11.45 | 24.50 | 29.89 | 30.14 | 29.06 | 25.25 | 19.19 |
| | | | | | | | | | |
| Cross sect | ion fo | or receive | er 1 (Id= | =-71) and | d source | Id=-57 | | | |
| ItemType | | Id | Dist | ance | X | | Y | Hgrnd | |
| Height Gr | | | | | 244.00 | 10. | 10 24 | 0.00 | |
| Receiver 1.50 | | 1 | (| 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| Pointsource | e 0.00 | | | | | | | | |
| L(wr) | | | | | 81.40 | | | | |
| 66.90 A(ground) -3.79 | | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 |
| A(barrier) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(veg) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | 0.00 | 0 00 | 0 00 | 0 00 | 0 00 | 0 00 | 0.00 | 0.00 |
| A(sit) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(bld) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) 16.66 | | 0.00 | 0.02 | 0.06 | 0.15 | 0.27 | 0.52 | 1.38 | 4.67 |
| A(geo) | | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 |
| 54.07 C(meteo) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| | | | | | | | | | |
| L(p) -0.04 | | | 12.50 | 25.56 | 30.97 | 31.24 | 30.20 | 26.54 | 21.05 |
| | | | | | | | | | |
| Cross sect | ion fo | or receive | er 1 (Id= | =-71) and | d source | Id=-56 | | | |
| ItemType Height Gr | | Id Cluste | | cance | X | ζ | Y | Hgrnd | |
| - . | | 1 | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| Building | 0.00 | 1 2 | 19 | 9.502 | 359.80 | 103 | 30.64 | 0.00 | |

Vintec Acoustics Inc.

| Building | | 3. | 1.524 | 369.42 | 102 | 23.43 | 0.00 | |
|---|--------|-------|-------|--------|-------|-------|-------|-------|
| 8.00 0.00 Pointsource 2.00 0.00 | Id=-56 | | | | | | | |
| L(wr) | | | | | | 81.00 | | 76.00 |
| 66.90 A(ground) -3.40 | -3.40 | -3.40 | -3.40 | -3.40 | -3.40 | -3.40 | -3.40 | -3.40 |
| A(barrier) | 2.36 | 3.10 | 3.87 | 4.46 | 4.78 | 5.04 | 5.40 | 5.98 |
| 6.95 A(veg) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(sit) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(bld) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(air) 14.18 | 0.00 | 0.01 | 0.05 | 0.13 | 0.23 | 0.44 | 1.17 | 3.98 |
| 14.18 A(geo) 52.67 | 52.67 | 52.67 | 52.67 | 52.67 | 52.67 | 52.67 | 52.67 | 52.67 |
| | 0.00 | | | | | | | |
| L(p) -3.49 32.9 | | | | | | | | |
| Cross section f | | | | | | | | |
| ItemType | | | tance | X | | Y | Hgrnd | |
| Height GrndFac Receiver 1.50 0.00 | | (| 0.000 | 344.20 | 104 | 42.34 | 0.00 | |
| Building 8.00 0.00 | 1 2 | 19 | 9.464 | 359.47 | 103 | 30.27 | 0.00 | |
| Building 8.00 0.00 | 1 2 | 32 | 2.079 | 369.36 | 102 | 22.44 | 0.00 | |
| Pointsource 2.00 0.00 | | 142 | 2.458 | 455.92 | 9. | 53.95 | 0.00 | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 | -3.79 |
| A(barrier) 15.05 | 2.32 | 3.12 | 4.07 | 5.18 | 6.54 | 8.23 | 10.29 | 12.59 |

| A(veg) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|---------------------------|--------|--------|-------|-------|----------|--------|-------|-------|-------|
| A(sit) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | | 0.00 | 0.02 | 0.06 | 0.15 | 0.27 | 0.52 | 1.38 | 4.67 |
| 16.65 A(geo) | | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 | 54.07 |
| 54.07 C(meteo) 0.00 | | 0.00 | | | | | | | |
| L(p) -15.08 | | -10.00 | | | | | | | |
| | | | | | | | | | |
| Cross sect | cion f | | | | d source | Id=-54 | | | |
| ItemType Height Gr | ndFac | | | | Σ | Χ | Y | Hgrnd | |
| Receiver 1.50 | 0.00 | 1 | (| 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| Building 8.00 | 0.00 | 1 2 | | 9.449 | 359.28 | 3 103 | 30.06 | 0.00 | |
| Building 8.00 | 0.00 | 1 2 | | 2.052 | 369.06 | 5 102 | 22.11 | 0.00 | |
| Pointsourd 2.00 | 0.00 | Id=-54 | 16 | | | | | | |
| | | | | | | | | | |
| L(wr) 66.90 | | | | | | | | | |
| A(ground) -4.11 | | -4.11 | -4.11 | -4.11 | -4.11 | -4.11 | -4.11 | -4.11 | -4.11 |
| A(barrier) | | 2.29 | 3.12 | 4.21 | 5.67 | 7.52 | 9.68 | 12.10 | 14.56 |
| 17.02 A(veg) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | | 0.01 | 0.02 | 0.07 | 0.17 | 0.32 | 0.61 | 1.61 | 5.47 |
| 19.51 A(geo) | | 55.44 | 55.44 | 55.44 | 55.44 | 55.44 | 55.44 | 55.44 | 55.44 |
| 55.44 C(meteo) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| L(p) -20.96 | | | 8.33 | 20.29 | 24.23 | 22.63 | 19.38 | 13.16 | 4.65 |
|--|------|----------------|----------|-----------|------------------|--------|-------|---------------|-------|
| Cross secti | | | r 1 (Id= | =-71) and | | Id=-53 | Y | | |
| Height Grr Receiver 1.50 C Building | 0.00 | Cluste: 1 | (| | 344.20 359.08 | | 12.34 | | |
| 8.00 C Building | 0.00 | 2 1 2 | 32 | 2.029 | 368.72 | 2 102 | 21.74 | 0.00 | |
| L(wr) 66.90 A(ground) -4.35 | | 42.60 -4.35 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| A(barrier) 18.74 A(veg) | | 2.27 | 3.17 | 4.43 | 6.31 | 8.67 | | | 16.39 |
| 0.00 A(sit) 0.00 A(bld) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | 0.00 |
| 0.00 A(air) 22.36 A(geo) 56.63 | | 0.01 56.63 | 0.02 | 0.08 | 0.20 | 0.37 | | 1.85 56.63 | |
| C (meteo) 0.00 | | 0.00 | | | | | | | |
| L(p) -26.47 | 26.4 | | | | | | | | |
| Cross secti | | | | =-71) and | d source | Id=-53 | | | |
| ItemType Height Grr | | | | cance | X | Z | Y | Hgrnd | |

| Receiver | 1 | (| 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
|---------------------------------------|-------------|-----------|-----------|----------|--------|-------|-------|-------|
| 1.50 0.00 Building(R) | 4 | 226 | 5.963 | 552.25 | 95 | 51.64 | 0.00 | |
| 8.60 0.00 Pointsource 2.00 0.00 | Id=-53 | 296 | | 490.64 | | 19.28 | 0.00 | |
| | | | | | | | | 76.00 |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | | 81.80 | 81.00 | 78.20 | 76.00 |
| A(ground) -4.94 | -4.94 | -4.94 | -4.94 | -4.94 | -4.94 | -4.94 | -4.94 | -4.94 |
| A(barrier) | 3.44 | 1.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(sit) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(bld) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(air) | 0.01 | 0.04 | 0.12 | 0.31 | 0.57 | 1.08 | 2.87 | 9.72 |
| 34.66 A(geo) | 60.43 | 60.43 | 60.43 | 60.43 | 60.43 | 60.43 | 60.43 | 60.43 |
| 60.43 A(refl) | | | | | | -0.97 | -0.97 | -0.97 |
| -0.97 C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | 0.00 |
| L(p) -24.23 24. | | | | | | 23.45 | | |
| | | | | | | | | |
| Cross section f | or receive | er 1 (Id= | =-71) and | d source | Id=-52 | | | |
| ItemType Height GrndFac | | | ance | X | | Y | Hgrnd | |
| Receiver 1.50 0.00 | | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| Building | | 19 | 0.452 | 359.33 | 103 | 30.11 | 0.00 | |
| 8.00 0.00 Building | | 32 | 2.058 | 369.13 | 102 | 22.18 | 0.00 | |
| 8.00 0.00 Pointsource 2.00 0.00 | 2 Id=-52 | 215 | 5.058 | 511.42 | 9(| 7.11 | 0.00 | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |

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| A(ground) -4.54 | -4.54 | -4.54 | -4.54 | -4.54 | -4.54 | -4.54 | -4.54 | -4.54 |
|--|--|---------------------------------------|---|--|--|---|--|-----------------------|
| A(barrier) | 2.21 | 3.02 | 4.07 | 5.44 | 7.16 | 9.20 | 11.54 | 13.97 |
| 16.45 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.09 | 0.22 | 0.41 | 0.79 | 2.08 | 7.05 |
| 25.14 A(geo) | 57.64 | 57.64 | 57.64 | 57.64 | 57.64 | 57.64 | 57.64 | 57.64 |
| 0.00 | 0.00 | | | | | | | |
| L(p) -27.79 26. | -12.72 | | | | | | | |
| | | | | | | | | |
| [Reflection in | facade 4 | (Id=13)] | | | | | | |
| ItemType | Id | Dist | tance | Σ | ζ | Y | Hgrnd | |
| ItemType Height GrndFac Receiver | Id ct Cluste | Dis [†] | tance | | | | _ | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) | Id ct Cluste 1 | Dis [:] er | | 344.20 |) 104 | 12.34 | _ | |
| ItemType Height GrndFac Receiver 1.50 0.00 | Id ct Cluste 1 4 | Dis | 0.000 5.696 | 344.20 552.94 | 104 | 42.34 32.88 | 0.00 | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource | Id ct Cluste 1 4 | Dis | 0.000 5.696 | 344.20 552.94 | 104 | 42.34 32.88 | 0.00 | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id ct Cluste 1 4 | Dis | 0.000 5.696 | 344.20 552.94 | 104 | 42.34 32.88 | 0.00 | 76.00 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-52 | Dist | 0.000 5.696 4.561 | 344.20 552.94 511.42 | 93 2 90 | 42.34 32.88 07.11 | 0.00 | 76.00 -4.89 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-52 42.60 | Dis- 233 284 | 0.000 5.696 4.561 | 344.20 552.94 511.42 81.40 | 9: 2 9: 81.80 | 42.34 32.88 07.11 | 0.00 0.00 0.00 78.20 | |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-52 42.60 -4.89 | Distance | 0.000 5.696 4.561 75.90 -4.89 | 344.20 552.94 511.42 81.40 -4.89 | 93 2 90 81.80 -4.89 | 42.34 32.88 07.11 81.00 -4.89 | 0.00 0.00 0.00 78.20 -4.89 | -4.89 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-52 | Distance | 0.000 5.696 4.561 75.90 -4.89 | 344.20 552.94 511.42 81.40 -4.89 | 104 93 2 90 81.80 -4.89 | 42.34 32.88 07.11 81.00 -4.89 | 0.00 0.00 0.00 78.20 -4.89 | -4.89 0.00 |
| ItemType Height GrndFac Receiver 1.50 0.00 Building(R) 8.60 0.00 Pointsource 2.00 0.00 | Id Cluste 1 4 Id=-52 42.60 -4.89 2.95 0.00 | Disfer (23) 284 62.80 -4.89 0.00 0.00 | 75.90 -4.89 0.00 | 344.20 552.94 511.42 81.40 -4.89 0.00 0.00 | 10.4 93.2 90.2 81.80 -4.89 0.00 0.00 | 42.34 32.88 07.11 81.00 -4.89 0.00 0.00 | 0.00 0.00 0.00 78.20 -4.89 0.00 | -4.89 0.00 0.00 |

| A (geo) | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 |
|---------------------------------------|----------|-------|-------|--------|-------|-------|------------|-------|
| 60.08 A(refl) | | | | | -0.97 | -0.97 | -0.97 | -0.97 |
| -0.97 C(meteo) 0.00 | 0.00 | | | 0.00 | | | | |
| L(p) -22.51 28.2 | | | | | | 23.81 | | |
| Cross section for | | | | | | | | |
| | | | | | | V | Il a son d | |
| ItemType Height GrndFac | t Cluste | r | | | | Y | 5 | |
| Receiver 1.50 0.00 | 1 | (| 0.000 | 344.20 | 104 | 42.34 | 0.00 | |
| | 1 2 | | 9.490 | 359.71 | 103 | 30.53 | 0.00 | |
| Building | 1 | | 2.124 | 369.76 | 102 | 22.88 | 0.00 | |
| 8.00 0.00 Pointsource 2.00 0.00 | | | | | | | | |
| | | | | | | | | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| | -4.68 | -4.68 | -4.68 | -4.68 | -4.68 | -4.68 | -4.68 | -4.68 |
| | 2.16 | 2.89 | 3.73 | 4.42 | 4.86 | 5.26 | 5.84 | 6.73 |
| 8.09 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.10 | 0.25 | 0.46 | 0.87 | 2.31 | 7.82 |
| 27.90 A(geo) | | 58.55 | | | 58.55 | | | 58.55 |
| 58.55 | | | | | | | | |
| C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L(p) -22.96 27. | | 6.01 | 18.21 | 22.86 | 22.61 | 21.00 | 16.18 | 7.58 |

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| Cross section f | or receive | r 1 (Id= | =-71) and | d source | Id=-50 | | | |
|---------------------------------------|----------------|----------|-----------|----------|--------|-------|-------|-------|
| ItemType | | | cance | X | ζ | Y | Hgrnd | |
| Height GrndFac | 1 | | 0.000 | 344.20 | 10 | 42.34 | 0.00 | |
| 1.50 0.00 Pointsource 2.00 0.00 | | | | | | | | |
| L(wr) | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| 66.90 A(ground) -4.80 | -4.80 | -4.80 | -4.80 | -4.80 | -4.80 | -4.80 | -4.80 | -4.80 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.11 | 0.27 | 0.51 | 0.96 | 2.53 | 8.59 |
| 30.64 A(geo) | 59.36 | 59.36 | 59.36 | 59.36 | 59.36 | 59.36 | 59.36 | 59.36 |
| 0.00 | 0.00 | | | | | | | 0.00 |
| L(p) -18.31 31. | -11.97 | | | | | | | |
| Cross section f | for receive | r 1 (Id= | =-71) and | d source | Id=-49 | | | |
| ItemType | | | cance | X | ζ | Y | Hgrnd | |
| Height GrndFac Receiver | ct Cluste 1 | | 0.000 | 344.20 | 10 | 42.34 | 0.00 | |
| 1.50 0.00 Pointsource 2.00 0.00 | Id=-49 | | 1.744 | | | | | |
| L(wr) 66.90 | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| A(ground) -4.89 | -4.89 | -4.89 | -4.89 | -4.89 | -4.89 | -4.89 | -4.89 | -4.89 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
|---------------------------|--------------------|-----------|-----------|----------|--------|-------|-------|-------|
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.12 | 0.30 | 0.55 | 1.04 | 2.75 | 9.33 |
| 33.28 A(geo) | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 | 60.08 |
| 60.08 C(meteo) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 | | | | | | | | |
| L(p) -21.57 | -12.60 31.26 | 7.58 | 20.60 | 25.92 | 26.06 | 24.77 | 20.26 | 11.48 |
| | | | | | | | | |
| Cross section | on for receive | er 1 (Id: | =-71) and | d source | Id=-48 | | | |
| ItemType | Id AFact Cluste | | tance | Σ | ζ | Y | Hgrnd | |
| Receiver 1.50 0. | 1 | | 0.000 | 344.20 | 104 | 42.34 | 0.00 | |
| Pointsource 2.00 0. | Id=-48 | | | 603.29 | | | 0.00 | |
| | | | | | | | | |
| L(wr) 66.90 | | 62.80 | | | 81.80 | | 78.20 | 76.00 |
| A(ground) -4.95 | -4.95 | -4.95 | -4.95 | -4.95 | -4.95 | -4.95 | -4.95 | -4.95 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.04 | 0.12 | 0.31 | 0.58 | 1.10 | 2.91 | 9.87 |
| 35.20 A(geo) | 60.57 | 60.57 | 60.57 | 60.57 | 60.57 | 60.57 | 60.57 | 60.57 |
| 60.57 C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3 . 3 3 | | | | | | | | |

| Cross secti | on fo | r receive | r 1 (Id= | =-71) and | d source | Id=-47 | | | |
|------------------------|-------|--------------|----------|-----------|----------|--------|-------|-------|--------|
| ItemType Height Grn | | Id | | cance | X | | Y | Hgrnd | |
| Receiver | | 1 | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| Building | | 4 10 | 233 | 3.258 | 552.75 | 93 | 37.87 | 0.00 | |
| Barrier | | Id=14 10 | 233 | 3.292 | 552.78 | 93 | 37.85 | 8.60 | |
| Barrier | | Id=14 10 | 270 | 0.287 | 585.86 | 92 | 21.28 | 8.60 | |
| Building | | 4 10 | 270 | 0.320 | 585.89 | 92 | 21.27 | 0.00 | |
| Pointsource |) | | 292 | 2.221 | 605.47 | 91 | 11.46 | 0.00 | |
| 2.00 0 | | | | | | | | | |
| L(wr) 66.90 | | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| | | -4.92 | -4.92 | -4.92 | -4.92 | -4.92 | -4.92 | -4.92 | -4.92 |
| A(barrier) 23.83 | | 4.46 | 6.76 | 9.66 | 12.63 | 15.58 | 18.53 | 21.51 | 22.91 |
| A(veg) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(sit) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(bld) 0.00 | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(air) 34.16 | | 0.01 | 0.04 | 0.12 | 0.30 | 0.56 | 1.07 | 2.82 | 9.58 |
| A(geo) 60.31 | | 60.31 | 60.31 | 60.31 | 60.31 | 60.31 | 60.31 | 60.31 | 60.31 |
| C (meteo) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L(p) -46.47 | | | 0.62 | 10.74 | 13.08 | 10.28 | 6.02 | -1.52 | -11.87 |
| | | | | | | | | | |
| Cross secti | on fo | r receive | r 1 (Id= | =-71) and | d source | Id=-46 | | | |
| ItemType Height Grn | | Id Cluste | | cance | X | | Y | Hgrnd | |
| Receiver | | 1 | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |

| Building 8.60 Barrier 0.65 Barrier 0.65 Building 8.60 Pointsour 2.00 | 0.00 | | 224 253 253 280 | 4.786 1.755 1.809 0.039 | 552.06 552.11 577.06 577.11 603.22 | 9 9 9 | | 8.60 8.60 0.00 0.00 | |
|---|--------|----------------|--------------------------|----------------------------------|--|--------|-------|------------------------------|----------------|
| L(wr) 66.90 A(ground) | | | 62.80 | | 81.40 | | | 78.20 -4.88 | 76.00 -4.88 |
| -4.88 | | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| A(barrier |) | 4.91 | 7.00 | 10.01 | 13.27 | 16.35 | 19.34 | 22.32 | 24.01 |
| 24.48 A(veg) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | | 0.01 | 0.03 | 0.12 | 0.29 | 0.54 | 1.02 | 2.71 | 9.18 |
| 32.73 A(geo) | | 59.94 | 59.94 | 59.94 | 59.94 | 59.94 | 59.94 | 59.94 | 59.94 |
| 59.94 C(meteo) 0.00 | | 0.00 | | | | | | | |
| | | -17.38 62 | | | | | | | |
| Cross sec | tion f | for receive | er 1 (Id= | =-71) and | d source | Id=-45 | | | |
| ItemType | 150 | Id | | cance | X | ζ | Y | Hgrnd | |
| Receiver | | ct Cluste 1 | | 0.000 | 344.20 | 10 | 42.34 | 0.00 | |
| 1.50 Building | 0.00 | 4 | 243 | 3.126 | 575.72 | 2 9 | 68.13 | 0.00 | |
| 8.60 Barrier | 0.00 | 10 Id=14 | 243 | 3.158 | 575.76 | 5 9 | 68.12 | 8.60 | |
| 0.65 Barrier | 0.00 | 10 Id=14 | | | 576.70 |) 9 | 67.82 | 8.60 | |
| 0.65 Building | 0.00 | 10 | | | 576.72 | | 67.81 | 0.00 | |
| 8.60 | 0.00 | 10 | _ 1 | . – • • | 2.0,72 | J | | 2.00 | |

| Pointsource 2.00 0.00 | Id=-45 | 268 | | 600.28 | | | | |
|---|---------------|-----------|-----------|----------|------------------|-------|-------|-------|
| L(wr) | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| 66.90 A(ground) -4.83 | -4.83 | -4.83 | -4.83 | -4.83 | -4.83 | -4.83 | -4.83 | -4.83 |
| A(barrier) 6.20 | 2.45 | 2.95 | 3.49 | 3.99 | 4.41 | 4.75 | 5.10 | 5.53 |
| A(veg) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(sit) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(bld) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| A(air) 31.43 | 0.01 | 0.03 | 0.11 | 0.28 | 0.52 | 0.98 | 2.60 | 8.81 |
| A(geo) 59.58 | 59.58 | 59.58 | 59.58 | 59.58 | 59.58 | 59.58 | 59.58 | 59.58 |
| C (meteo) 0.00 | 0.00 | | | 0.00 | | | | 0.00 |
| L(p) -25.49 27. | | 5.06 | 17.55 | 22.37 | 22.12 | 20.51 | 15.75 | 6.90 |
| Cross section f | for receive | er 1 (Id= | =-71) and | d source | Id=-44 | | | |
| ItemType | | | tance | Σ | ζ | Y | Hgrnd | |
| Height GrndFac Receiver 1.50 0.00 | t Cluste 1 | | 0.000 | 344.20 | 10 | 42.34 | 0.00 | |
| Pointsource 2.00 0.00 | Id=-44 | 274 | 4.103 | 610.14 | 1 9 [°] | 75.93 | 0.00 | |
| L(wr) | 42.60 | 62.80 | 75.90 | 81.40 | 81.80 | 81.00 | 78.20 | 76.00 |
| 66.90 A(ground) -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 | -4.85 |
| A(barrier) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

| A(air) | 0.01 | 0.03 | 0.11 | 0.29 | 0.53 | 1.00 | 2.65 | 8.98 |
|-----------------------------|--------------|-----------|-----------|----------|----------|-------|-------|-------|
| , , | 59.75 | 59.75 | 59.75 | 59.75 | 59.75 | 59.75 | 59.75 | 59.75 |
| 59.75 C(meteo) 0.00 | 0.00 | | | | | | | |
| L(p) -20.04 31.5 | -12.31 | | | | | | | |
| | | | | | | | | |
| Cross section fo | or receive | er 1 (Id= | =-71) and | d source | 1 (Id=19 | 9) | | |
| ItemType Height GrndFact | | | tance | Σ | ζ | Y | Hgrnd | |
| Receiver 1.50 0.00 | 1 | | 0.000 | 344.20 | 104 | 12.34 | 0.00 | |
| Building | 4 | 22 | 7.841 | 552.33 | 3 94 | 19.63 | 0.00 | |
| 8.60 0.00 Barrier | Id=14 | 22 | 7.888 | 552.37 | 7 94 | 19.61 | 8.60 | |
| Pointsource 1.50 0.00 | | | | | | | | |
| | | | | | | | | |
| L(wr) 55.90 | 41.60 | 65.80 | 76.90 | 80.40 | 83.80 | 79.00 | 70.20 | 63.00 |
| A(ground) -4.88 | -4.88 | -4.88 | -4.88 | -4.88 | -4.88 | -4.88 | -4.88 | -4.88 |
| | 4.76 | 4.74 | 4.72 | 4.66 | 4.55 | 4.32 | 3.82 | 2.61 |
| 0.00 A(veg) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(sit) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(bld) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 0.00 A(air) | 0.01 | 0.03 | 0.10 | 0.25 | 0.47 | 0.88 | 2.34 | 7.92 |
| 28.27 A(geo) | 58.66 | 58.66 | 58.66 | 58.66 | 58.66 | 58.66 | 58.66 | 58.66 |
| 58.66 C(meteo) 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| L(p) -26.14 28.2 | -16.94 12 | 7.25 | 18.30 | 21.70 | 25.00 | 20.01 | 10.26 | -1.32 |

| IIo i ab t | Con | maa Dam | T 7\ 0 00 | 2.0 | 6. | 3 125 | 250 |
|------------|---------|-----------------|-----------|---------|----------|--------------|--------------|
| _ | | rce Per 2000 | _ | 32 | 0 | 3 123 | 250 |
| 1.50 | 1000 | | 28.12 | | 7 2 | 5 18.30 | 21.70 |
| 25.00 | 20 01 | | -1.32 | | 7 • 2 | 10.50 | 21.70 |
| 1.50 | 20.01 | 1 2 | | -16.94 | 7 2 | 5 18.30 | 21.70 |
| | 20 01 | | | | 1.2 | 10.30 | 21.70 |
| 25.00 | 20.01 | 1 3 | -1.32 | | 7 0 | 10 20 | 01 70 |
| 1.50 | 0.0 0.1 | | | -16.94 | 1.2 | 5 18.30 | 21.70 |
| 25.00 | 20.01 | | -1.32 | | | | |
| 1.50 | | 1 4 | | | | | |
| | | | | | | | |
| | Id | | 38.31 | | 14.7 | 5 27.51 | 32.63 |
| 33.12 | | | 20.90 | -3.32 | | | |
| 1.50 | Id | =30 2 | | | | | |
| | | | | | | | |
| 1.50 | Id | =30 3 | | | | | |
| | | | | | | | |
| 1.50 | Id | =30 4 | | | | | |
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| Height | | | LAeq | 32 | 6 | 3 125 | 250 |
| 500 | 1000 | 2000 | | 8000 | | | |
| 1.50 | | 1 | 38.71 | -4.88 | 15.4 | 6 28.00 | 32.97 |
| 33.74 | 32.20 | 27.96 | 20.92 | -3.30 | | | |
| 1.50 | | 2 | 28.12 | -16.94 | 7.2 | 5 18.30 | 21.70 |
| 25.00 | 20.01 | 10.26 | -1.32 | -26.14 | | | |
| 1.50 | | 3 | 28.12 | -16.94 | 7.2 | 5 18.30 | 21.70 |
| 25.00 | 20.01 | 10.26 | -1.32 | -26.14 | | | |
| 1.50 | | 4 | | | _ | | |
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| 0.0 | 320; | ; | _ | -; | ; "T | TAL" | |
| 0.0 | 0002; | 1326; | 0.000000 | 1; 0.0 | 0000; "T | TimerSet - c | verhead" |
| 0.0 | 0031; | 663; | 0.000004 | 6; 0.0 | 0004; "W | riteTestStri | .ng " |
| | 000; | ; | _ | | | PolyClipper. | - |
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Vintec Acoustics Inc.



APPENDIX D: Proposed Site Drawings

