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**Elora Greens Housing Developers
Environmental Noise Feasibility
Assessment**

**Proposed Residential Development
65-69 Bridge Street, Elora**

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Assessment**

**Proposed Residential Development
65-69 Bridge Street, Elora**

**R.J. Burnside & Associates Limited
6990 Creditview Road, Unit 2
Mississauga ON L5N 8R9 CANADA**

**September 2026
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Record of Revisions

Revision	Date	Description
0	September 2, 2026	Initial Submission to the Township of Centre Wellington

R.J. Burnside & Associates Limited**Report Prepared By:**Brent Miller, P.Eng.
Air & Noise Engineer
BM/AR:rc**Report Reviewed By:**
Andrew Rogers, P.Eng.
Air & Noise Engineer

Executive Summary

R.J. Burnside & Associates Limited (Burnside) was retained by Elora Greens Housing Developers to prepare an Environmental Noise Feasibility Report for the 65-69 Bridge Street Residential Townhouse Development. The property is located at 65-69 Bridge Street, in Elora, Ontario.

There are no rail traffic noise sources of concern within 300 m of the development.

The subject development is not located within the NEF/NEP noise contours of any airports. Therefore, aircraft noise is not considered a significant noise source for this development.

The Township of Centre Wellington has identified that only the stationary noise is required for the scope of this noise report. Burnside agrees with this determination. The development is located on a low traffic subdivision road (Bridge Street), and at least 0.5 km away from other roads of any significance (1st Line). The development is not located near any rail or airport. As a result, no transportation noise assessment is provided in this report, as there is no expectation that any transportation mitigation measures would be required under NPC-300 or any municipal standards.

The nearby stationary noise sources of concern to the development include the Jefferson Elora Corporation which contains HVAC. Sound levels from these sources were modelled based on point of receptor noise level modeling by RWDI updating the Acoustic Assessment Report for the Jefferson Elora Corporation in a 2024 memo. The resulting future sound levels were compared to the applicable MECP limits for a Class 1 Area in order to determine whether any noise control measures are required. The ambient noise conditions predicted for the proposed development were not considered as they are expected to be below the MECP exclusion limits.

The assessment revealed that the stationary sound levels at all points of reception on the proposed development are below MECP limits; therefore, no external stationary noise mitigation measures are required.

There are no proposed stationary noise sources of concern within the proposed development.

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Aerial Photography taken from Google Earth Professional, 2022.

In acoustics it is impossible to achieve no adverse effects for one hundred percent of the population. Certain persons are hypersensitive to noise and will find compliant noise situations to cause adverse effects.

1.0 Introduction

R.J. Burnside & Associates Limited (Burnside) was retained by Elora Greens Housing Developers to prepare an Environmental Noise Feasibility Report for the new 65-69 Bridge Street Residential Townhouse Development. The property is located at 65-69 Bridge Street, Centre Wellington (Elora), Ontario.

The purpose of this assessment is to examine potential noise impacts relating to the proposed residences along Bridge Street, Elora.

1.1 Objective

This report has been prepared in support of the new 65-69 Bridge Street Residential Townhouse Development. This report will be included in a submission for the Zoning By-law Amendment and Consent Applications. Transportation noise was not considered based on noise study requirements from the Township of Centre Wellington and is not expected to have impact levels having any transportation noise-based requirements under NPC-300. This noise report was required by the township for the stationary noise assessment of the Jefferson Elora Corporation located south of the proposed development. The potential noise impacts were evaluated by comparing predicted sound levels at the representative points of reception with the MECF sound level limits.

1.2 Study Area

The proposed 65-69 Bridge Street Residential Townhouse Development is located on Bridge Street in Elora, Ontario. The site location map is provided in Figure 1.

The Site Plan is shown in Figure 2. The proposed development is in an area currently zoned by Centre Wellington as R1A (Single Detached Dwelling). The zoning map is shown in Figure 3.

1.3 Site Visit

Burnside did not conduct a site visit as it was determined that all critical information about the site could be determined from publicly available aerial photographs and Streetview.

Burnside's review of the study area did not discover any unregulated noise sources of potential concern such as a dog park or daycare playground.

2.0 Applicable Noise Criteria

The proposed 65-69 Bridge Street Residential Townhouse Development is located in a Class 1 Urban Area.

2.1 MECP Noise Policies

Environmental Noise Guideline – Stationary and Transportation Sources – Approval and Planning (NPC-300) is the MECP Publication which provides advice, sound level limits and guidance that may be used when land use planning decisions are made under the Planning Act, and the Niagara Escarpment Planning and Development Act. This guidance is for land use planning authorities, developers, and consultants. It is intended to minimize the potential conflict between proposed noise sensitive land uses and sources of noise emissions.

2.1.1 Transportation Noise

2.1.1.1 Outdoor Living Areas

NPC-300 indicates that the sound level should be assessed in an outdoor living area (OLA). Where the noise exceeds the applicable sound level limits, mitigation measures may be required. Noise control measures are not required if the sound level estimated in the OLA is 55 dBA or less during the daytime hours.

NPC-300 indicates that if the 16-hour equivalent sound level in the OLA is between 55 dBA and 60 dBA, noise control measures may be applied to reduce the sound level to 55 dBA; otherwise, a warning clause Type A should be issued. If the sound level in the OLA is greater than 60 dBA, noise control measures should be implemented to reduce the level to 55 dBA. Only in cases where the required noise control measures are not feasible for technical, economic, or administrative reasons would an excess above the limit (55 dBA) be acceptable with a warning clause Type B.

2.1.1.2 Plane of a Window

If the sound level in the plane of a bedroom or living/dining room window is between 55 dBA and 65 dBA during daytime or between 50 dBA and 60 dBA during nighttime, the dwelling should be designed with a provision for the installation of central air conditioning in the future. Warning clause Type C is also recommended. If the sound level in the plane of a bedroom or living/dining room window is greater than 65 dBA during daytime or 60 dBA during nighttime, installation of central air conditioning should be implemented with a warning clause Type D.

The location and installation of any required outdoor air conditioning devices must comply with the MECP's publication: Residential Air Conditioning Devices (NPC-216).

NPC-216 requires that the sound levels of the condensing units not exceed the maximum sound level of 55 dBA¹ at the neighbour's closest point of reception. Applicable points of reception are defined as the closest window or ground based outdoor living areas. Air conditioning units with a maximum Air-conditioning Refrigeration Institute (ARI) standard sound rating of greater than 7.6 Bels are also prohibited.

2.1.1.3 Indoor Living Areas

For road noise, the indoor sound level limit is 45 dBA for living/dining areas at any time and during daytime in the sleeping quarters. The sound level in the sleeping quarters should not exceed 40 dBA during nighttime.

2.1.1.4 Aircraft Noise

For aircraft noise, if the outdoor Noise Exposure Forecast / Noise Exposure Projection (NEF/NEP) value is less than 25, further assessment is not required. If the receptor is located between the NEF/NEP contours of 25 and 30, the dwelling should be designed with a provision for central air conditioning, along with warning clause Type C. In addition, the building components should be designed to achieve the indoor sound level limit of 0 NEF/NEP for sleeping quarters and 5 NEF/NEP for all other indoor living areas.

If the outdoor NEF/NEP value is greater than 30, municipal approval is required for a residential development proposal to proceed. If the municipality grants approval, then central air conditioning must be implemented, along with warning clauses Type B and Type D. In addition, the building components should be designed to achieve the indoor sound level limit of 0 NEF/NEP for sleeping quarters and 5 NEF/NEP for all other indoor living areas².

2.1.2 Stationary Noise

The applicable stationary noise criteria are dependent on the Class Area as well as the ambient sound levels present at each point of reception. The applicable criteria are the greater of the exclusion limits, provided in the MECF tables in Appendix A, or the lowest hourly ambient sound level predicted for a given point of reception.

The proposed 65-69 Bridge Street Residential Townhouse Development is located in a Class 1 Urban Area.

¹ 55 dBA is permissible for new land use developments when air conditioning is a mandatory requirement.

² The indoor NEF/NEP values are not obtained from NEF/NEP contour maps. The values are representative of the indoor sound levels and are used as assessment criteria for the evaluation of acoustical insulation requirements (MECF, NPC-300, Section C-6). Since $NEF = L_{eq(24)} - 32$ dBA, NEF 0 corresponds to $L_{eq(24)}$ of 32 dBA and NEF 5 corresponds $L_{eq(24)}$ of 37 dBA.

The MECP criteria for the outdoor receptors considered in this report are 50 dBA from 07:00 to 23:00.

The MECP criteria for the plane of window receptors considered in this report are 50 dBA from 07:00 to 23:00 and 45 dBA from 23:00 to 07:00.

MECP tables showing all criteria for all Class Areas and all time periods are shown in Appendix A.

2.2 Regional and Municipal Policies

In addition to the preceding MECP noise criteria from NPC-300, the proposed development is also subject any regional and municipal requirements. However, neither County nor the Town have published noise standards or bylaws for new developments.

3.0 Transportation Noise Impact Assessment

No transportation noise assessment has been conducted for this development. No major road, rail, or airport noise sources are located in near proximity to the development. It is Burnside's understanding that a transportation noise assessment has not been required by the Township of Centre Wellington.

4.0 Stationary Noise Sources and Receptors

4.1 Internal Stationary Noise

There are no significant internal stationary noise sources proposed for the development. Burnside recommends that should air conditioning units be voluntarily provided by the developer for the units, that efforts are made to ensure placements of the units comply with NPC-216.

4.2 External Stationary Noise

External stationary noise is defined as the off-site stationary noise with potential to impact the proposed development. The potential impact of external stationary noise is assessed at all worst-case predictable noise sensitive locations within the proposed development itself.

4.2.1 External Stationary Noise Sources

The proposed 65-69 Bridge Street Residential Townhouse Development is in proximity to the following businesses/operations with potential noise impact on the proposed development:

Jefferson Elora Corporation:

Burnside did not have access to the Jefferson Elora Corporation (Jefferson) site. To model the site Burnside had to rely on a July 24, 2024, Memorandum by RWDI Air Inc. (RWDI) who also prepared the ECA approval for the site. This memorandum introduced additional sources and provided a summary table of steady state noise impacts at noise sensitive receptors near the facility. The Memo considers the state of the Jefferson site after a recent addition.

The memo contained insufficient information to create a full source by source noise model of the Jefferson facility. In some cases, estimating a facilities noise emissions using aerial photography and making very conservative assumptions based on other similar land uses Burnside has on-site experience at is a reasonable compromise to model a site where access has not been granted and limited information is available. In this case the site is too large and complex (source count) for this method to be preferable.

The relevant³ steady state noise levels reported in the memo are as follows:

- N01: 102 Bridge Street
 - Façade:
 - Daytime and Evening: 44 dBA
 - Nighttime: 36 dBA
 - Outdoor:
 - Daytime: 41 dBA
 - Evening: 37 dBA
- N02:
 - Façade:
 - Daytime and Evening: 46 dBA
 - Nighttime: 42 dBA
 - Outdoor: None modeled
- N08: 77 Halls Drive
 - Façade:
 - Daytime and Evening: 48 dBA
 - Nighttime: 45 dBA
 - Outdoor:
 - Daytime: 41 dBA
 - Evening: 37 dBA

Using the above details Burnside has developed a stationary noise model using 3 proxy sources at the Jefferson site to match the impacts predicted at the same locations summarized in the RWDI memo. The locations of the sources are shown in Figure 5:

Receptor	RWDI Impact	Burnside Impact	Difference
N01	POW Daytime: 44 dBA Evening: 44 dBA Nighttime: 36 dBA	POW Daytime: 44 dBA Evening: 44 dBA Nighttime: 41 dBA	POW Daytime: 0 dB Evening: 0 dB Nighttime: +5 dB
	OPOR Daytime: 41 dBA Evening: 37 dBA	OPOR Daytime: 44 dBA Evening: 44 dBA	OPOR Daytime: 0 dB Evening: +7 dB
N02	POW Daytime: 46 dBA Evening: 46 dBA Nighttime: 42 dBA	POW Daytime: 46 dBA Evening: 46 dBA Nighttime: 43 dBA	POW Daytime: 0 dB Evening: 0 dB Nighttime: +1 dB

³ North, East or West of Jefferson Elora Corporation Site.

Receptor	RWDI Impact	Burnside Impact	Difference
N08	POW Daytime: 48 dBA Evening: 48 dBA Nighttime: 45 dBA	POW Daytime: 48 dBA Evening: 48 dBA Nighttime: 45 dBA	POW Daytime: 0 dB Evening: 0 dB Nighttime: 0 dB
	OPOR Daytime: 41 dBA Evening: 37 dBA	OPOR Daytime: 46 dBA Evening: 46 dBA	OPOR Daytime: 0 dB Evening: +9 dB

To create the Burnside model three sources ranging in sound power from 95 dBA to 111 dBA were used. Each are located on the rooftop of the primary Jefferson structure. Priority was given to creating an accurate match of the predicted daytime noise levels. The Burnside model is conservative or equivalent to the RWDI model. As the Burnside model is more conservative for all the relevant receptors, it is expected that the results produced by this model at the subject development will be within 1 or 2 dB of the equivalent location in the full RWDI model and not underestimated.

4.2.2 External Stationary Noise Points of Reception

The impact of the Jefferson Elora Corporation described above have been assessed for their impact on the proposed 65-69 Bridge Street Residential Townhouse Development. The following worst-case predictable points of reception were selected for the analysis:

- POR01: Located on the south corner of the “Retained Lands 2” unit on the façade of the proposed structure.
 - Calculated at heights of 1.5 m and 4.5 m.
- OPOR01: Located at the south corner of the “Retrained Lands 2” lot, which is within 30 m of the structure.

The receptor locations are shown in Figure 4.

Receptors were also taken from the Environmental Noise Design Review Memo, completed by RWDI, building off of the ECA approval for the facility. These receptors were used to calibrate Burnside’s approximation of the noise model for the facility:

- N01 – one-storey POR receptor at 102 Bridge Street. Height 1.5 m.
- N02 – two-storey POR receptor at 15 Stafford Street. Heights of 1.5 and 4.5 m modeled.
- N08 – two-storey POR receptor at 77 Halls Drive. Heights of 1.5 and 4.5 m modeled.
- ON01 – OPOR receptor located in the front lawn of 102 Bridge Street. Height 1.5 m.
- ON08 – OPOR receptor located in the front lawn of 77 Halls Drive. Height 1.5 m.

5.0 Stationary Noise Impact Assessment

5.1 Methodology

Sound levels associated with stationary noise are predicted with Softnoise GmbH iNoise software, version 2024.3 (64 bit) (iNoise) noise modeling software. iNoise follows the ISO 9613/2 method of sound level calculation as implemented in the ISO 17534-3 Quality Assurance standard.

The following settings are used:

- Calculation height: 4.5 m.
- Default Ground attenuation Factor: 0.8 (mostly absorptive).
- No Barrier effect for direct sight – Active.
- Dmax According to ISO 9613 – Active.
- Avoid overestimating barrier effect – Active.
- Terrain model: Use full DTM.
- Temperature: 283.15 K.
- Pressure: 101.33 kPa.
- Air humidity: 70%.⁴

The Jefferson Elora Site has a berm which is not included in this model as this feasibility assessment uses no grading differences in the modeling.

5.2 Predicted Ambient Sound Levels & Applicable Criteria

As the proposed development is not located near any major roads no ambient sound levels were calculated. Instead, the MECP exclusion limits for a Class 1 Area will be used. The applicable sound level criteria for stationary noise are presented in Table 1.

5.3 Predicted External Stationary Sound Levels

The predicted external stationary sound levels of the neighbouring stationary sources onto the proposed development are presented in Table 2. The daytime and nighttime unmitigated external stationary noise contours are presented in Figures 6 and 7, respectively. Note that the daytime sound levels are also representative of the evening sound levels. All contours are presented at a 4.5m height representing the second storey.

Therefore, as the unmitigated external stationary sound levels are compliant with the applicable sound level criteria for all PORs, mitigation is not required. Note that the daytime levels have a buffer of at least 3 dB from Class 1 non-compliance. Although the

⁴ ISO 9613 Requirement

nighttime noise levels are only 1 dB from the Class 1 exclusion limit at the proposed development, the noise levels were overestimated in the Burnside model when compared to the RWDI model which had access to the Jefferson site and correct operational assumptions. Burnside can therefore confidently conclude that if better information were used in the modeling, the conclusion of no exceedances existing would be maintained.

Notwithstanding the above, Burnside still recommends a Type E warning clause be assigned to all of the development properties to alert the owners to the potential of noise from the Jefferson facility.

The inputs and results from iNoise are provided in Appendix B.

5.4 Predicted External Stationary Sound Levels – Impulsive

The RWDI memo from June 2024 identifies that impulsive noise is also generated from the Jefferson site. Only details from the steady state noise modeling were provided in the memo. For impulsive sources, the memo states that “Impulsive sources were found to be similar to those previously reported and below the applicable sound level limits”. The memo does not make it clear which NPC-300 noise criteria under Class 1 apply for impulsive noise, so Burnside cannot develop a meaningful similar impulsive noise model to apply to the site. However, based on compliance being shown with steady state noise, it is reasonable to infer that impulsive noise compliance would also apply to the development. This is because the worst-case steady state noise receptors had marginally higher noise levels than the new receptors introduced by the proposed development. Therefore, if the impulsive noise model is similar the worst-case receptor for the Jefferson site will not exist at the proposed development. If compliance exists at these worst-case receptors it must also exist at the proposed development for impulsive noise, although Burnside does not know the impulse count or criteria to apply for this case.

The proposed development lands are also currently zoned for residential development and would have been candidates RWDI would have had to consider for impacts for the Jefferson site. Having not been selected Burnside infers that a qualified engineer has identified that this development land is not the worst-case noise location for either steady state or impulsive noise.

The inclusion of a Type E warning clause for all units of the proposed development is important to highlight that noise (such as impulses) may occasionally be higher than ambient noise levels even in what are complaint conditions.

6.0 Noise Mitigation Measures

Based on the predicted sound levels it was determined that noise mitigation measures are required for some units within this Residential Townhouse Development. The required measures are summarized in Table 3.

6.1 External Stationary Noise Mitigation Requirements

Although the Jefferson Elora Corporation's MECP approved⁵ noise levels do not exceed the applicable criteria at the proposed development, it is still possible that during times of low ambient noise the noise from the facility may be audible. This is particularly relevant for the impulsive noise coming from the facility. Burnside therefore recommends that MECP warning clause Type E be provided for all units in the development.

⁵ Noise mitigation does exist on the Jefferson Elora Corporation Site.

7.0 Implementation Procedures

The following implementation procedures are recommended to ensure that each requirement of this study is implemented at the correct stage of the development process:

- This Environmental Noise Assessment was conducted at the Feasibility level, as the final grading plans were not available at the time. Typically, municipalities request feasibility level reports during rezoning and then request that the report is upgraded to a Detailed Environmental Noise Assessment during the Site Plan Approval stage. However, as this feasibility report has no barrier recommendations, a Detailed Environmental Noise Assessment is unlikely to produce any change in the requirements of this report. Furthermore, the development is outside of the distance setback metrics from major transportation noise sources recommended by the MECP for requiring detailed studies. Therefore, provided the proposed building heights and layouts remain unchanged, Burnside recommends that the municipality waive any requirement for a Detailed Environmental Noise Assessment if one is typically required.
- Although air conditioning was not required for this development, prior to Issuance of Building Permit an Acoustical Consultant should be retained to assess or determine the locations and Bel ratings of any developer installed air conditioning units for compliance with NPC-216. Improperly installed air conditioning units can result in being required to install acoustic jackets, relocate, or fully replace any noncomplying units.

8.0 Conclusion

The results of the 65-69 Bridge Street Residential Townhouse Development Environmental Noise Feasibility Report demonstrate that if all noise mitigation measures prescribed in Table 3 are implemented, sound levels at all developed lots will meet the Ministry of the Environment, Conservation and Parks noise guideline requirements. The Implementation Procedures as outlined in Section 7.0 should be followed carefully to ensure that no requirements of the noise study are overlooked during the development and construction process.

9.0 References

Controlling Sound Transmission into Buildings by J.D. Quirt. National Research Council Canada, September 1985.

Environmental Noise Guideline. Stationary and Transportation Sources – Approval and Planning. Publication NPC-300. Ministry of the Environment, Conservation and Parks, August 2013 (released October 21, 2013).

Ontario Building Code. Ministry of Municipal Affairs and Housing, 2012.

Profession Engineers Providing Acoustical Engineering Services in the Land Use Planning Process. Professional Engineers Ontario. 2024



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Tables

Table 1: Applicable Stationary Sound Level Criteria

POR #	Time of Day	Ambient Sound Level	NPC-300 Exclusion Limit	Applicable Sound Level Criteria
POR1	Daytime	-	50 dBA	50 dBA
	Evening	-	50 dBA	50 dBA
	Nighttime	-	45 dBA	45 dBA
OPOR1	Daytime	-	50 dBA	50 dBA
	Evening	-	50 dBA	50 dBA
	Nighttime	-	-	-

Table 2: Predicted External Stationary Sound Levels (Unmitigated)⁶

POR #	Time of Day	Impact	Criteria	Compliance?
POR1	Daytime	47 dBA	50 dBA	Yes
	Evening	47 dBA	50 dBA	Yes
	Nighttime	44 dBA	45 dBA	Yes
OPOR1	Daytime	43 dBA	50 dBA	Yes
	Evening	43 dBA	50 dBA	Yes
	Nighttime	40 dBA	-	Yes

⁶ The levels projected herein are not based on firsthand Burnside measurements, but rather are projections based on limited information available from RWDI about the noise emissions of the Jefferson Elora Corporation.

Table 3: Minimum Noise Mitigation Measures

Unit ID	Air Conditioning¹	Exterior Wall STC Rating²	Window STC Rating²	Door STC Rating²	Acoustic Barrier Height (m)³	Warning Clause⁴
Retained Lands 1	No requirement	Standard ⁶	Standard ⁶	Standard ⁶	-	E ⁷
Severed Lands 1	No requirement	Standard ⁶	Standard ⁶	Standard ⁶	-	E ⁷
Severed Lands 2	No requirement	Standard ⁶	Standard ⁶	Standard ⁶	-	E ⁷
Retained Lands 2	No requirement	Standard ⁶	Standard ⁶	Standard ⁶	-	E ⁷

Notes:

¹ “Provision for adding” means that building must be built so that the occupant can install conditioning in the future, at their discretion. Required means that the building must be built with central air conditioning installed.

² STC – Sound Transmission Class rating. STC values are based upon the assumption that all wall and window areas are 80% and 30%, respectively, of the corresponding room floor area.

³ Height of an acoustic barrier with no gaps underneath or in the wall.

⁴ Notification to potential purchaser of a potential annoyance due to an existing source of environmental noise. Warning clauses should be included in agreements of Offers of Purchase and Sale.

⁶ Achievable using standard construction methods.

⁷ Warning Clause Type E is recommended by Burnside.

Warning Clauses - Transportation Sources**Type A**

“Purchasers/tenants are advised that sound levels due to increasing road traffic (rail traffic) (air traffic) may occasionally interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment.”

Type B

“Purchasers/tenants are advised that despite the inclusion of noise mitigation features in the development and within the building units, sound levels due to increasing road traffic (rail traffic) (air traffic) may on occasions interfere with some activities of the dwelling occupants as the sound levels exceed the sound level limits of the Municipality and the Ministry of the Environment.”

Type C

“This dwelling unit has been designed with the provision for adding central air conditioning at the occupant’s discretion. Installation of central air conditioning by the occupant in low and medium density developments will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment.”

Type D

“This dwelling unit has been supplied with a central air conditioning system which will allow windows and exterior doors to remain closed, thereby ensuring that the indoor sound levels are within the sound level limits of the Municipality and the Ministry of the Environment.”

Warning Clauses - Stationary Sources**Type E**

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

“(facility) (utility)” to be replaced by “Jefferson Elora Corporation” for this development.

Warning Clauses – Class 4 Area Notification

Type F

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



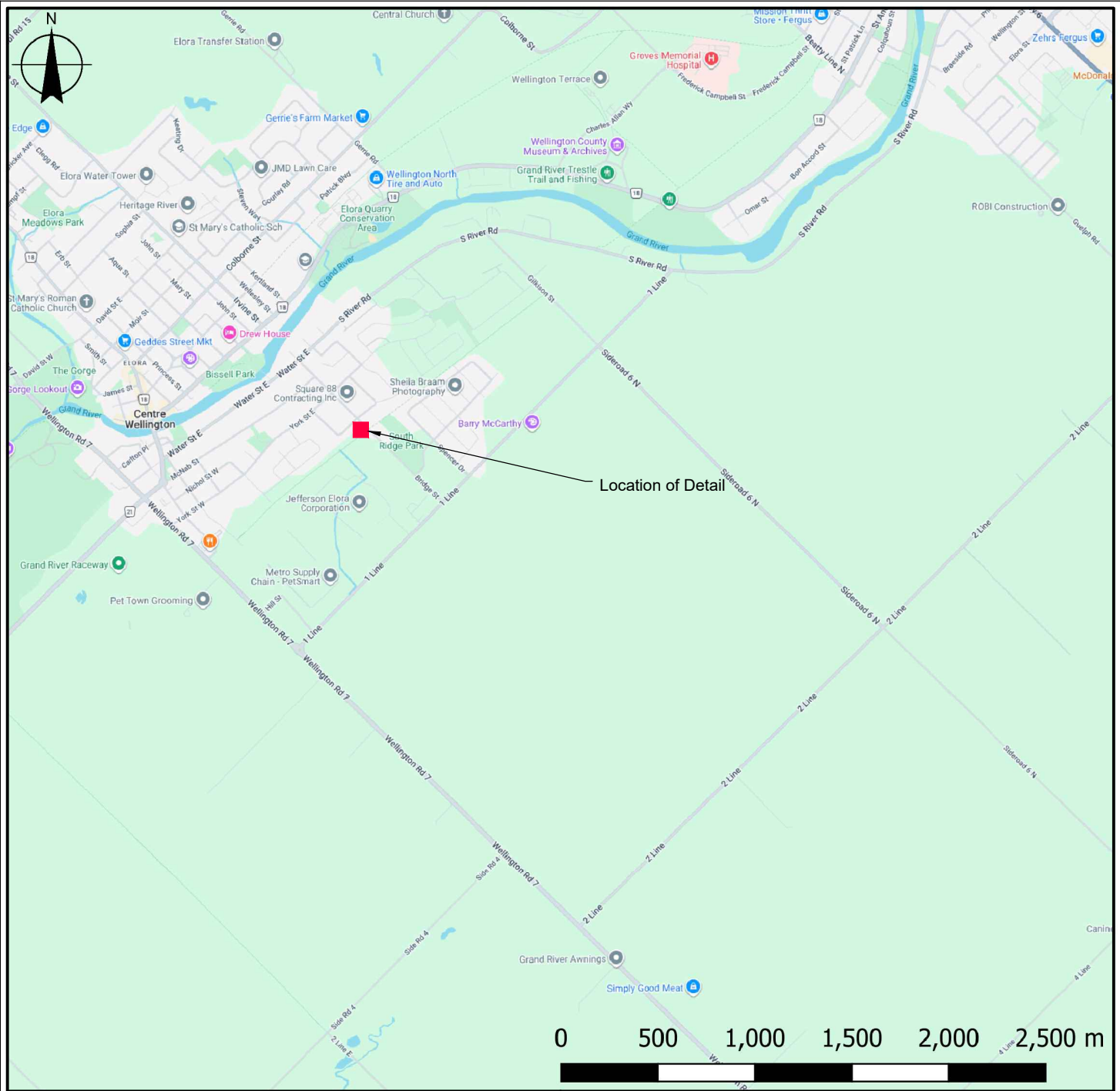
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Figures

Figures



			
Client			
Elora Greens Housing Developers			
Figure Title			
Environmental Noise Feasibility Assessment			
Site Location Map			
Drawn	Checked	Date	Figure No. 1
BM	AR	September 2026	
Scale		Project No.	
1:30,000		300061644.0000	

Figure 2: Site Plan



CONCEPT PLAN

25 Clarke St, 65 & 69 Bridge St, Elora
Township of Centre Wellington 242778

LEGEND

Subject Lands

SITE STATISTICS

Zoning Summary (R3) <i>Street Townhouse</i> Township of Centre Wellington Zoning By-law 2009-045		
	Required (min)	Provided
Lot Frontage	6.0m	±6.1m
Lot Area	190m²/unit	±212m²
Lot Depth	26.0m	±34.4m
Bldg Height (max.)	3 Storeys (11.0m)	2 storeys
Front Yard	6.0m	±11.0m
Ext. Side Yard	4.5m (Bldg) 6.0m (Garage)	N/A
Int. Side Yard	1.8m	±1.8m
Rear Yard	7.5m	±7.5m
No. Attached Dwelling Units in a Row (max.)	6	4
Common Amenity Area	N/A	-
Private Amenity Area	N/A	-
Lanscaped Area	40%	40%
Front Yard Landscaping	The Front Yard on any Lot, excepting the driveway shall be landscaped and no parking shall be permitted within this Lanscaped Open Space	
Parking	4 spaces (1 spaces/unit)	8 spaces
Number of Units: 4		

FOR DISCUSSION
PURPOSES ONLY

NOTES

1. Property boundary survey 61R-22852 prepared by Van Harten Land Surveyors (Oct. 25, 2024)
2. Townhome footprints provided by Greystone Inc.
3. Aerial - Township of Centre Wellington (2023)
4. Surrounding parcel information is approximate.

DATE: July 9th, 2026



SCALE: 1:200



K:\2027\B05\0400 944000\7040778_Concept Plan_R01A\2026.dwg

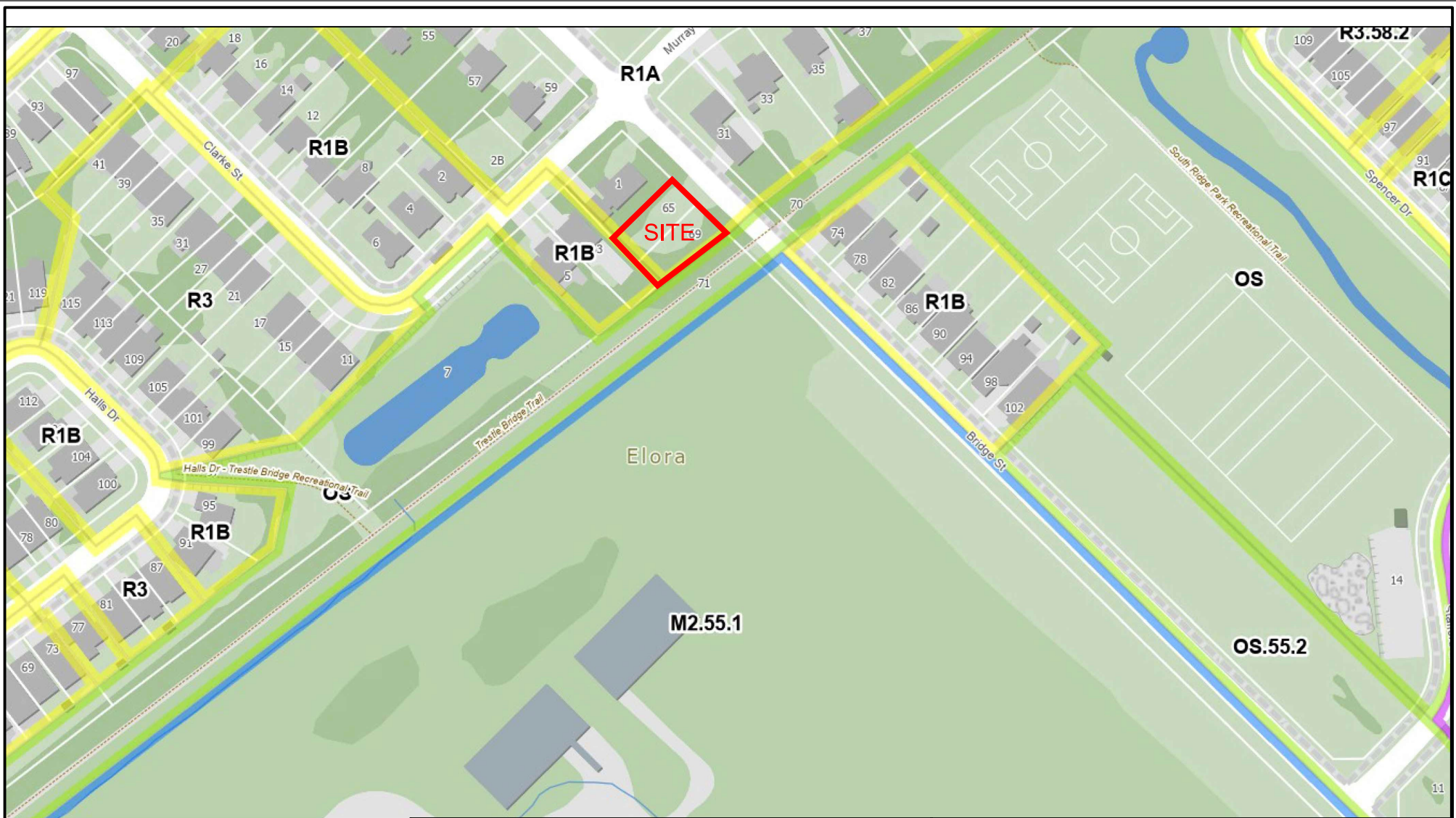


				Figure Title Environmental Noise Feasibility Assessment	
				Zoning Map	
		Client Elora Greens Housing Developers	Drawn BM Scale N/A	Checked AR Date September 2026 Project No. 300061644.0000	Figure No. 3



Legend

- Site boundary
- Sensitive Receptors



Figure Title

Environmental Noise Feasibility Assessment

Stationary Noise - Points of Reception

Client

Elora Greens Housing Developers

Drawn

BM

Checked

AR

Date

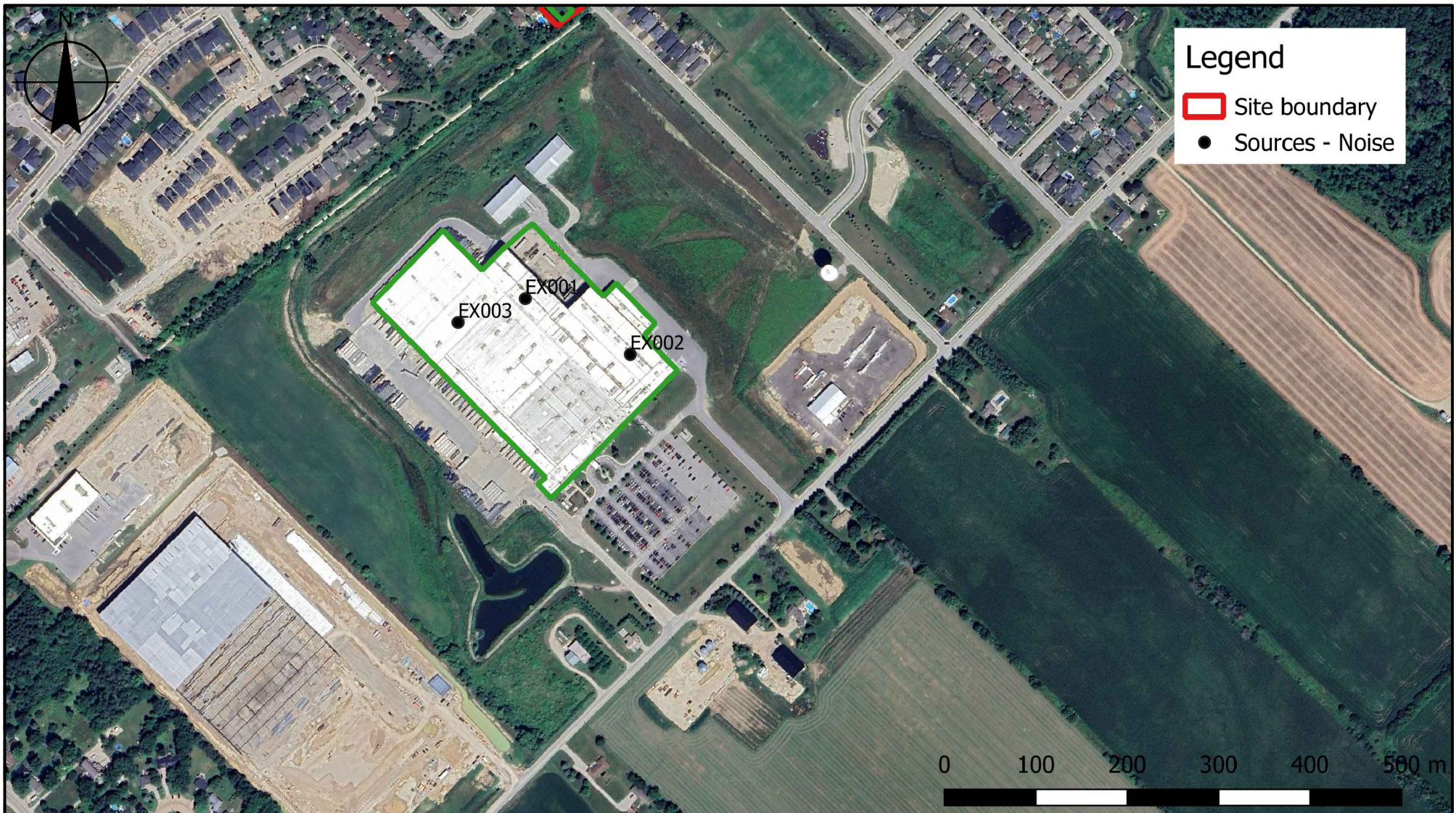
September 2026

Project No.

300061644.0000

Figure No.

4



Legend

- Site boundary
- Sources - Noise

	Figure Title		
		Environmental Noise Feasibility Assessment	
		External Stationary Noise Sources	
Client	Drawn	Checked	Date
	BM	AR	September 2026
	Scale	Project No.	
Elora Greens Housing Developers		300061644.0000	
			Figure No.
			5

Figure 6: Unmitigated Daytime External Stationary Noise
Steady State Noise Model

1 Sep 2026, 13:58

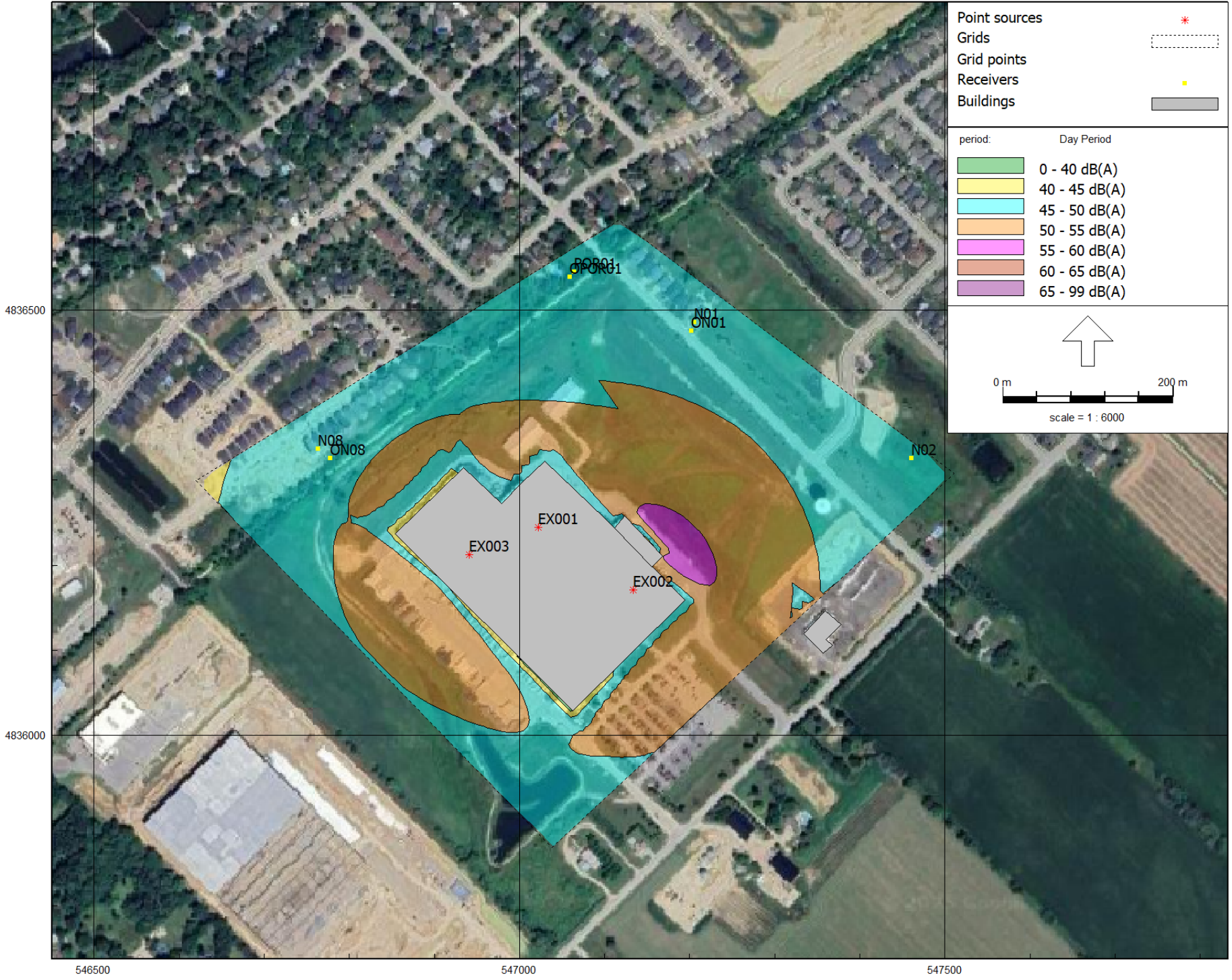
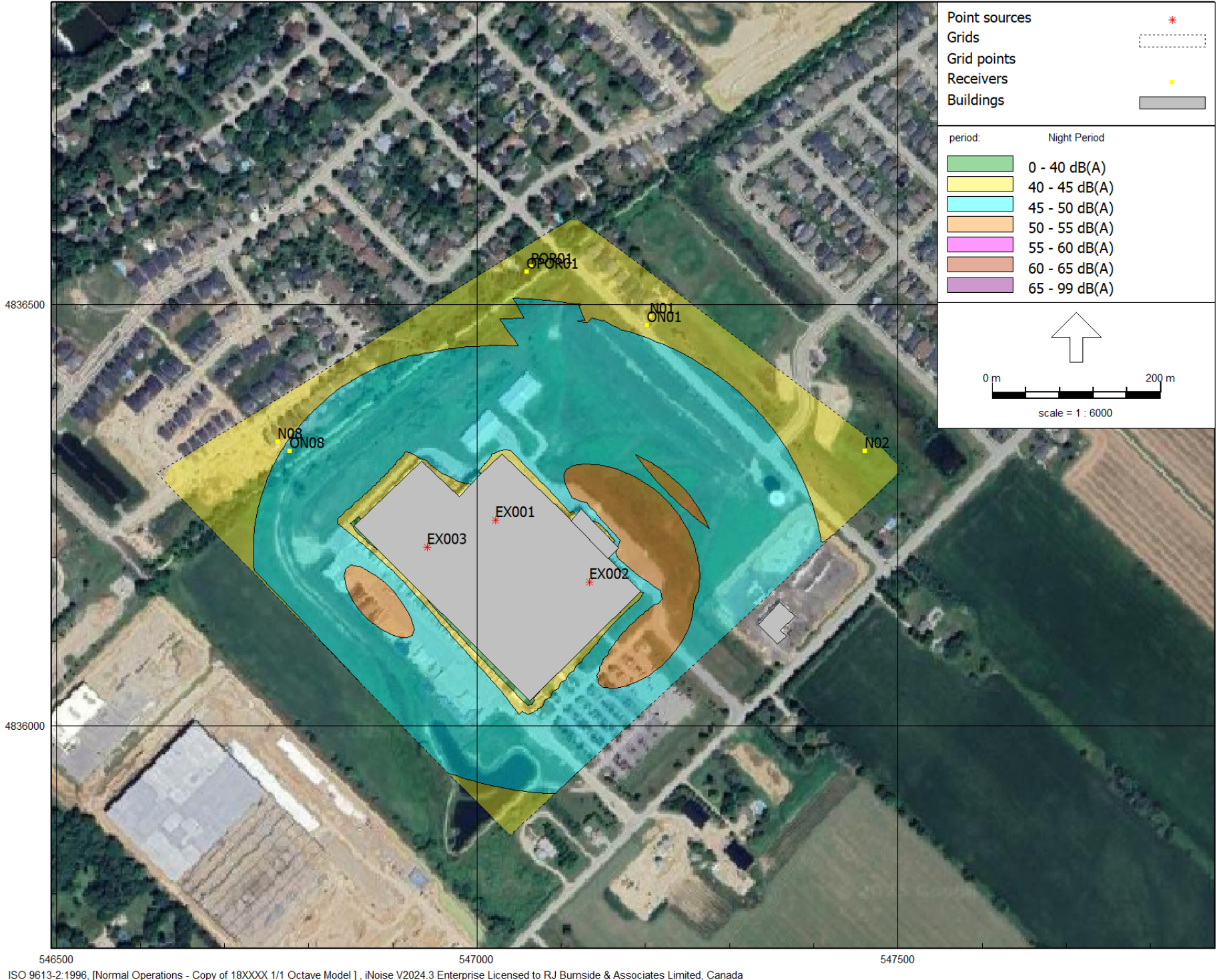


Figure 7: Unmitigated Nighttime External Stationary Noise
Steady State Noise Model

1 Sep 2026, 13:59





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Appendix A

MECP Criteria

APPENDIX A

Table A-1: Sound Level Limit for Outdoor Living Areas – Road and Rail (MECP Table C-1 of NPC-300)

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

Table A-2: Indoor Sound Level Limits – Road and Rail (MECP Table C-2 of NPC-300)

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

Table A-3: Road Noise Control Measures – Outdoor Living Areas (Adapted from NPC Section C7.1.1)

Sound Levels	Measures
$\leq 55 \text{ dBA}$	Noise control measures may not be required.
$> 55 \text{ dBA}$ and $\leq 60 \text{ dBA}$	Noise control measures may be applied, otherwise warning clause Type A.
$> 60 \text{ dBA}$	Noise control measures should be implemented to reduce the levels to 55 dBA, otherwise warning clause Type B.

Table A-4: Plane of a Window – Ventilation Requirements Daytime Period, 07:00 to 23:00 Hours (Adapted from NPC Section C7.1.2.1)

Sound Levels	Measures
≤ 55 dBA	Noise control measures may not be required.
> 55 dBA and ≤ 65 dBA	The dwelling should be designed with a provision of for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.
> 65 dBA	Installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table A-2.

Table A-5: Plane of a Window – Ventilation Requirements Nighttime Period, 23:00 to 07:00 Hours (Adapted from NPC Section C7.1.2.2)

Sound Levels	Measures
≤ 50 dBA	Noise control measures may not be required.
> 50 dBA and ≤ 60 dBA	The dwelling should be designed with a provision of for the installation of central air conditioning in the future, at the occupant's discretion. Warning clause Type C is also recommended.
> 60 dBA	Installation of central air conditioning should be implemented with a warning clause Type D. In addition, building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table A-2.

Table A-6: Indoor Living Areas – Building Components (Adapted from NPC Section C7.1.3)

Sound Levels	Measures
> 60 dBA nighttime > 65 dBA daytime	Building components including windows, walls and doors, where applicable, should be designed so that the indoor sound levels comply with the sound level limits in Table A-2. The acoustical performance of the building components (windows, doors and walls) should be specified.

Environmental Noise Feasibility Assessment
65-69 Bridge Street, Elora
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Table A-7: Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA) Outdoor Points of Reception (MECP Table C-5 of NPC-300)

Time of Day	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 19:00	50 dBA	50 dBA	45 dBA	55 dBA
19:00 – 23:00	50 dBA	45 dBA	40 dBA	55 dBA

Table A-8: Exclusion Limit Values of One-Hour Equivalent Sound Level (Leq, dBA) Plane of Window of Noise Sensitive Spaces (MECP Table C-6 of NPC-300)

Time of Day	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 19:00	50 dBA	50 dBA	45 dBA	60 dBA
19:00 – 23:00	50 dBA	50 dBA	40 dBA	60 dBA
23:00 – 07:00	45 dBA	45 dBA	40 dBA	55 dBA

Table A-9: Exclusion Limit Values of Impulsive Sound Level (LLM, dBAI) Outdoor Points of Reception (MECP Table C-7 of NPC-300)

Time of Day	Actual No. of Impulses in Period of 1 hour	Class 1 Area	Class 2 Area	Class 3 Area	Class 4 Area
07:00 – 23:00	9 or more	50	50	45	55
07:00 – 23:00	7 to 8	55	55	50	60
07:00 – 23:00	5 to 6	60	60	55	65
07:00 – 23:00	4	65	65	60	70
07:00 – 23:00	3	70	70	65	75
07:00 – 23:00	2	75	75	70	80
07:00 – 23:00	1	80	80	75	85

Table A-10: Exclusion Limit Values of Impulsive Sound Level (LLM, dBAI) Plane of Window – Noise Sensitive Spaces (Day/Night) (MECP Table C-8 of NPC-300)

Actual No. of Impulses in Period of 1 hour	Class 1 Area (7:00-23:00) / (23:00-7:00)	Class 2 Area (7:00-23:00) / (23:00-7:00)	Class 3 Area (7:00-19:00) / (19:00-7:00)	Class 4 Area (7:00-23:00) / (23:00-7:00)
9 or more	50/45	50/45	45/40	60/55
7 to 8	55/50	55/50	50/45	65/60
5 to 6	60/55	60/55	55/50	70/65
4	65/60	65/60	60/55	75/70
3	70/65	70/65	65/60	80/75
2	75/70	75/70	70/65	85/80
1	80/75	80/75	75/70	90/85



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Appendix B

Sample External Stationary Noise Modeling Printouts

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Name	Desc.	Height	Terrain L	HDef.	Type	DI	DI_Horz	DI_Vert	DI(0)	DI(10)	DI(20)
EX001		1.50	9.00	Relative to Objects	Normal point source	none	0	0	0.0	0.0	0.0
EX002		1.50	9.00	Relative to Objects	Normal point source	none	0	0	0.0	0.0	0.0
EX003		1.50	9.00	Relative to Objects	Normal point source	none	0	0	0.0	0.0	0.0

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Name	DI(30)	DI(40)	DI(50)	DI(60)	DI(70)	DI(80)	DI(90)	DI(100)	DI(110)	DI(120)	DI(130)	DI(140)	DI(150)
EX001	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX002	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EX003	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Name	DI(160)	DI(170)	DI(180)	Ca(D)	Ca(E)	Ca(N)	Weighting	No refl.	No building	No ind.site	Lw 31	Lw 63
EX001	0.0	0.0	0.0	0.00	0.00	3.01	A	No	No	No	--	--
EX002	0.0	0.0	0.0	0.00	0.00	3.01	A	No	No	No	--	--
EX003	0.0	0.0	0.0	0.00	0.00	3.01	A	No	No	No	--	--

Appendix B - iNoise Inputs - External Stationary

Model:	Copy of 18XXXX 1/1 Octave Model														
	Normal Operations - Site														
Group:	(main group)														
Listing of:	Point sources, for method Industrial noise - ISO 9613-2:1996														
Name	Lw 125	Lw 250	Lw 500	Lw 1k	Lw 2k	Lw 4k	Lw 8k	Red 31	Red 63	Red 125	Red 250	Red 500	Red 1k	Red 2k	
EX001	--	--	95.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
EX002	--	--	111.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
EX003	--	--	109.00	--	--	--	--	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Point sources, for method Industrial noise - ISO 9613-2:1996

Name	Red 4k	Red 8k
EX001	0.00	0.00
EX002	0.00	0.00
EX003	0.00	0.00

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Receivers, for method Industrial noise - ISO 9613-2:1996

Name	Desc.	Terrain L	HDef.	Height A	Height B	Height C	Height D	Height E	Height F	Façade
POR01	POR01	0.00	Relative	1.50	4.50	--	--	--	--	Yes
OPOR01	OPOR01	0.00	Relative	1.50	--	--	--	--	--	No
N02		0.00	Relative	1.50	4.50	--	--	--	--	Yes
N01		0.00	Relative	1.50	--	--	--	--	--	Yes
ON01		0.00	Relative	1.50	--	--	--	--	--	No
ON08		0.00	Relative	1.50	--	--	--	--	--	No
N08		0.00	Relative	1.50	4.50	--	--	--	--	Yes

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Grids, for method Industrial noise - ISO 9613-2:1996

Name	Desc.	Height	Terrain L	DeltaX	DeltaY
		4.50	0.00	10	10

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Buildings, for method Industrial noise - ISO 9613-2:1996

Name	Desc.	Height	Terrain L	HDef.	Function	Bld.type	ID dwelling	Floating	Refl. 31	Refl. 63	Refl. 125
2		6.00	0.00	Relative				No	0.80	0.80	0.80
3		9.00	0.00	Relative				No	0.80	0.80	0.80
4		6.00	0.00	Relative				No	0.80	0.80	0.80

Appendix B - iNoise Inputs - External Stationary

Model: Copy of 18XXXX 1/1 Octave Model
Normal Operations - Site
Group: (main group)
Listing of: Buildings, for method Industrial noise - ISO 9613-2:1996

Name	Ref1. 250	Ref1. 500	Ref1. 1k	Ref1. 2k	Ref1. 4k	Ref1. 8k
2	0.80	0.80	0.80	0.80	0.80	0.80
3	0.80	0.80	0.80	0.80	0.80	0.80
4	0.80	0.80	0.80	0.80	0.80	0.80

Appendix B - iNoise Outputs - External Stationary

Report: Table of Results
Model: Copy of 18XXXX 1/1 Octave Model
LAeq: total results for receivers
Group: (main group)
Group Reduction: No

Name									
Receiver	Description	Group	X	Y	Height	Day	Evening	Night	Li
N01_A		--	547205.53	4836485.43	1.50	44.0	44.0	41.0	44.0
N02_A		--	547461.24	4836325.70	1.50	42.3	42.3	39.3	42.3
N02_B		--	547461.24	4836325.70	4.50	45.8	45.8	42.8	45.8
N08_A		--	546763.28	4836336.56	1.50	45.5	45.5	42.5	45.5
N08_B		--	546763.28	4836336.56	4.50	47.7	47.7	44.7	47.7
ON01_A		--	547202.27	4836475.67	1.50	44.3	44.3	41.2	44.3
ON08_A		--	546777.53	4836325.71	1.50	46.2	46.2	43.2	46.2
OPOR01_A	OPOR01	--	547059.35	4836538.73	1.50	43.4	43.4	40.4	43.4
POR01_A	POR01	--	547064.70	4836544.52	1.50	43.3	43.3	40.3	43.3
POR01_B	POR01	--	547064.70	4836544.52	4.50	47.1	47.1	44.1	47.1

All shown dB values are A-weighted

